COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES	**)**	**CASE NO.**
COMPANY FOR AN ADJUSTMENT OF	**)**	**2012-00221**
ITS ELECTRIC RATES	**)**	

RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO THE
FIRST SET OF DATA REQUESTS OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
DATED JULY 31, 2012

FILED: AUGUST 14, 2012

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Daniel K. Arbough**, being duly sworn, deposes and says that he is Treasurer for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Daniel K. Arbough

Daniel K. Arbough

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 14th day of August 2012.

Tara A. Henry (SEAL)
Notary Public

My Commission Expires:

July 21, 2015

VERIFICATION

STATE OF TEXAS)
) **SS:**
COUNTY OF TRAVIS)

The undersigned, **William E. Avera**, being duly sworn, deposes and says he is President of FINCAP, Inc., that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

William E. Avera
William E. Avera

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 7th day of August 2012.

____________________(SEAL)
Notary Public

My Commission Expires:

1/10/2015

ADRIEN MCKENZIE
Notary Public
STATE OF TEXAS
My Comm. Exp. Jan. 10, 2015

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Lonnie E. Bellar

Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 14th day of August 2012.

Joan A. Henry (SEAL)
Notary Public

My Commission Expires:

July 21, 2015

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Cheryl E. Bruner**, being duly sworn, deposes and says that she is Director – Customer Service & Marketing for LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge and belief.

Cheryl Bruner
Cheryl E. Bruner

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 14th day of August 2012.

Joan A. Henry (SEAL)
Notary Public

My Commission Expires:

July 21, 2015

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Shannon L. Charnas**, being duly sworn, deposes and says that she is Director, Accounting and Regulatory Reporting for LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge and belief.

Shannon L. Charnas
Shannon L. Charnas

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 9th day of August 2012.

Tara A. Henry (SEAL)
Notary Public

My Commission Expires:

July 21, 2015

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Director - Rates for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Robert M. Conroy

Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 14th day of August 2012.

Sean A. Henry (SEAL)
Notary Public

My Commission Expires:

July 21, 2015

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Ronald L. Miller**, being duly sworn, deposes and says that he is Director – Corporate Tax for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Ronald L. Miller

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 14th day of August 2012.

(SEAL)
Notary Public

My Commission Expires:

July 21, 2015

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF JEFFERSON)

The undersigned, **Valerie L. Scott**, being duly sworn, deposes and says that she is Controller for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge and belief.

Valerie L. Scott

Valerie L. Scott

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 14th day of August 2012.

Sean A. Henry (SEAL)

Notary Public

My Commission Expires:

July 21, 2015

VERIFICATION

COMMONWEALTH OF PENNSYLVANIA)
) **SS:**
COUNTY OF CUMBERLAND)

The undersigned, **John J. Spanos**, being duly sworn, deposes and says that he is the Senior Vice President, Valuation and Rate Division, for Gannett Fleming, Inc., that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

John J. Spanos
JOHN J. SPANOS

Subscribed and sworn to before me, a Notary Public in and before said County and Commonwealth, this 6th day of August 2012.

(SEAL)
Notary Public

My Commission Expires:

February 20, 2015

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2015
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF JEFFERSON)

The undersigned, **Paul W. Thompson**, being duly sworn, deposes and says that he is Senior Vice President, Energy Services for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Paul W. Thompson
Paul W. Thompson

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 13th day of August 2012.

Sara A. Wiley (SEAL)
Notary Public

My Commission Expires:

July 21, 2015

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-1

Responding Witness: Kent W. Blake

Q1-1. Please provide a copy of all workpapers used in the preparation of the Company's revenue requirement and requested rate increase, including any initial and/or intermediate workpapers the results of which were used in subsequent workpapers. All electronic workpapers should be provided in live format with all formulas intact.

A1-1. See attached and the responses to PSC 1-54(c), PSC 2-49(b), PSC 2-75, and AG 1-67. Also, see Tab No. 37: 807 KAR 5:001 Section 10(6)(r) of the filing requirements.

The attachment is being provided in a separate file in Excel format.

9 Files

Reference Schedule

1.00

1.07

Louisville Gas & Electric and Kentucky Utilities Companies
Accrued Revenue
12 Months Ending March 2012

LG&E (Electric)

ACCRUED REVENUES

TOTAL Ultimate Consumers:	KWH	Cust. Charge Revenue	Demand Revenue	Demand Rev. (Demand ECR)	Energy Rev. (excl. fuel)	Energy Rev. (Base ECR)	Energy Rev. (Base Fuel)	FAC Revenue	DSM Revenue	ECR Revenue	MSR Revenue	STOD, ESM & VDT Revenue	Total Revenue	$/MWH
Actual: Unbilled Accrual..	506,232,000	$ 2,350,000	$ 9,489,000	$ 239,000	$ 13,475,000	$ 166,000	$ 11,204,000	$ 2,275,000	$ 629,000	$ 290,000	$ -	$ -	$ 40,117,000	$ 79.25
Actual: Unbilled Reversal..	(555,421,000)	$ (2,321,000)	$ (8,612,000)	$ (205,000)	$ (15,205,000)	$ (161,000)	$ (11,429,000)	$ (1,260,000)	$ (663,000)	$ (554,000)	$ -	$ -	$ (40,410,000)	$ 72.76
Actual: Other Accrued Revenues............................	-	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,712,000	$ 3,970,877	$ (6,021,907)	$ 2,635	$ 336	$ 1,663,941	$ -
Actual: Net Accrued Revenues................................	(49,189,000)	$ 29,000	$ 877,000	$ 34,000	$ (1,730,000)	$ 5,000	$ (225,000)	$ 4,727,000	$ 3,936,877	$ (6,285,907)	$ 2,635	$ 336	$ 1,370,941	$ (27.81)

LG&E (Gas)

ACCRUED REVENUES

TOTAL Retail:	MCF	Cust. Charge Revenue	Dist. Charge Revenue	DSM Revenue	GSC Revenue	WNA Revenue	VDT Revenue	Cashout Revenue	Total Revenue	$/MCF
Actual: Unbilled Accrual	736,284	$ 18,056	$ 1,554,036	$ 86,001	$ 3,496,000	$ 3,331,000	$ -	$ -	$ 8,485,093	$ 11.52
Actual: Unbilled Reversal	(1,860,109)	$ (9,056)	$ (3,918,132)	$ (173,001)	$ (9,856,280)	$ (239,000)	$ -	$ -	$ (14,195,468)	$ 7.63
Actual: Other Accrued Revenues	-	$ -	$ -	$ (635,460)	$ -	$ -	$ -	$ -	$ (635,460)	$ -
Actual: Net Accrued Revenues	(1,123,825)	$ 9,000	$ (2,364,096)	$ (722,459)	$ (6,360,280)	$ 3,092,000	$ -	$ 1,483	$ (6,344,352)	$ 5.65

KU (Electric)

ACCRUED REVENUES

TOTAL Ultimate Consumers:	KWH	Cust. Charge Revenue	Demand Revenue	Demand Rev. (Demand ECR)	Energy Rev. (excl. fuel)	Energy Rev. (Base ECR)	Energy Rev. (Base Fuel)	FAC Revenue	DSM Revenue	ECR Revenue	MSR Revenue	STOD, ESM & VDT Revenue	Total Revenue	$/MWH
Actual: Unbilled Accrual..	754,816,000	$ 3,214,000	$ 7,772,000	$ 3,481,000	$ 15,852,000	$ 3,197,000	$ 20,127,000	$ 346,000	$ 663,000	$ 1,875,000	$ -	$ -	$ 56,527,000	$ 74.89
Actual: Unbilled Reversal..	(864,399,000)	$ (3,131,000)	$ (7,790,000)	$ (3,379,000)	$ (18,482,000)	$ (2,772,000)	$ (23,800,000)	$ 92,000	$ (851,000)	$ (1,521,000)	$ -	$ -	$ (61,634,000)	$ 71.30
Actual: Other Accrued Revenues	-	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,254,000	$ 5,283,177	$ 900,841	$ 628	$ 12	$ 8,438,658	$ -
Actual: Net Accrued Revenues	(109,583,000)	$ 83,000	$ (18,000)	$ 102,000	$ (2,630,000)	$ 425,000	$ (3,673,000)	$ 2,692,000	$ 5,095,177	$ 1,254,841	$ 628	$ 12	$ 3,331,658	$ (30.40)

Reference Schedule

1.01

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : April 2011

			As Billed	As Corrected (Note 1)
1.	Last FAC Rate Billed		($0.00017)	($0.00030)
2.	KWH Billed at Above Rate		1,379,963,352	1,379,963,352
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ (234,594)	$ (413,989)
4.	KWH Used to Determine Last FAC Rate		1,724,874,871	1,733,410,436
5.	Non-Jurisdictional KWH (Included in Line 4)		248,678,057	248,678,057
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,476,196,814	1,484,732,379
7.	Revised FAC Rate Billed, if prior period adjustment is needed		$0.00000	$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ (250,953)	$ (445,420)
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ 16,359	$ 31,431
10.	Total Sales "Sm" (From Page 3 of 6)		1,490,352,072	1,490,352,072
11.	Kentucky Jurisdictional Sales		1,286,945,210	1,286,945,210
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15805402	1.15805402
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ 18,945	$ 36,399

Note 1 - Corrected February 2011 Last FAC Rate Billed (Line 1) and KWH Used to Determine Last FAC Rate (Line 4) can be found on Exhibit 1, page 2 of 3, as attached to the March 2011 Form A filed on April 19, 2011.

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : May 2011

1.	Last FAC Rate Billed		($0.00059)
2.	KWH Billed at Above Rate		1,296,344,179
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ (764,843)
4.	KWH Used to Determine Last FAC Rate		1,707,207,991
5.	Non-Jurisdictional KWH (Included in Line 4)		246,153,843
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,461,054,148
7.	Revised FAC Rate Billed, if prior period adjustment is needed		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ (862,022)
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ 97,179
10.	Total Sales "Sm" (From Page 3 of 6)		1,573,514,629
11.	Kentucky Jurisdictional Sales		1,354,233,291
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.16192287
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ 112,915

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : June 2011

1.	Last FAC Rate Billed		$0.00029
2.	KWH Billed at Above Rate		1,525,640,447
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 442,436
4.	KWH Used to Determine Last FAC Rate		1,490,352,072
5.	Non-Jurisdictional KWH (Included in Line 4)		203,406,862
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,286,945,210
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 373,214
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ 69,222
10.	Total Sales "Sm" (From Page 3 of 6)		1,779,169,014
11.	Kentucky Jurisdictional Sales		1,536,130,589
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15821469
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ 80,174

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : July 2011

1.	Last FAC Rate Billed		$0.00138
2.	KWH Billed at Above Rate		1,597,015,695
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 2,203,882
4.	KWH Used to Determine Last FAC Rate		1,573,514,629
5.	Non-Jurisdictional KWH (Included in Line 4)		219,281,338
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,354,233,291
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 1,868,842
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ 335,040
10.	Total Sales "Sm" (From Page 3 of 6)		2,026,370,618
11.	Kentucky Jurisdictional Sales		1,747,812,474
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.1593753
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ 388,437

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : August 2011

1.	Last FAC Rate Billed		$0.00108
2.	KWH Billed at Above Rate		1,756,874,684
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 1,897,425
4.	KWH Used to Determine Last FAC Rate		1,779,169,014
5.	Non-Jurisdictional KWH (Included in Line 4)		243,038,425
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,536,130,589
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 1,659,021
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ 238,404
10.	Total Sales "Sm" (From Page 3 of 6)		1,983,922,032
11.	Kentucky Jurisdictional Sales		1,717,312,867
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15524787
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ 275,416

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : September 2011

1.	Last FAC Rate Billed		$0.00312
2.	KWH Billed at Above Rate		1,618,189,554
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 5,048,751
4.	KWH Used to Determine Last FAC Rate		2,026,370,618
5.	Non-Jurisdictional KWH (Included in Line 4)		278,558,144
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,747,812,474
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 5,453,175
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (404,424)
10.	Total Sales "Sm" (From Page 3 of 6)		1,567,929,086
11.	Kentucky Jurisdictional Sales		1,356,451,443
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15590506
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (467,476)

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : October 2011

1.	Last FAC Rate Billed		$0.00236
2.	KWH Billed at Above Rate		1,459,659,884
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 3,444,797
4.	KWH Used to Determine Last FAC Rate		1,983,922,032
5.	Non-Jurisdictional KWH (Included in Line 4)		266,609,165
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,717,312,867
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 4,052,858
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (608,061)
10.	Total Sales "Sm" (From Page 3 of 6)		1,581,918,011
11.	Kentucky Jurisdictional Sales		1,368,259,593
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15615342
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (703,012)

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : November 2011

1.	Last FAC Rate Billed		$0.00163
2.	KWH Billed at Above Rate		1,256,720,738
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 2,048,455
4.	KWH Used to Determine Last FAC Rate		1,567,929,086
5.	Non-Jurisdictional KWH (Included in Line 4)		211,477,643
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,356,451,443
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 2,211,016
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (162,561)
10.	Total Sales "Sm" (From Page 3 of 6)		1,629,615,195
11.	Kentucky Jurisdictional Sales		1,404,484,137
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.16029448
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (188,619)

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : December 2011

1.	Last FAC Rate Billed		($0.00210)
2.	KWH Billed at Above Rate		1,478,224,470
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ (3,104,271)
4.	KWH Used to Determine Last FAC Rate		1,581,918,011
5.	Non-Jurisdictional KWH (Included in Line 4)		213,658,418
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,368,259,593
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ (2,873,345)
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (230,926)
10.	Total Sales "Sm" (From Page 3 of 6)		1,840,157,989
11.	Kentucky Jurisdictional Sales		1,581,401,921
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.16362448
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (268,711)

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : January 2012

1.	Last FAC Rate Billed		($0.00056)
2.	KWH Billed at Above Rate		1,612,798,139
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ (903,167)
4.	KWH Used to Determine Last FAC Rate		1,629,615,195
5.	Non-Jurisdictional KWH (Included in Line 4)		225,131,058
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,404,484,137
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ (786,511)
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (116,656)
10.	Total Sales "Sm" (From Page 3 of 6)		1,997,349,084
11.	Kentucky Jurisdictional Sales		1,715,250,942
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.16446465
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (135,842)

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : February 2012

1.	Last FAC Rate Billed		($0.00035)
2.	KWH Billed at Above Rate		1,703,648,389
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ (596,277)
4.	KWH Used to Determine Last FAC Rate		1,840,157,989
5.	Non-Jurisdictional KWH (Included in Line 4)		258,756,068
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,581,401,921
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ (553,491)
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (42,786)
10.	Total Sales "Sm" (From Page 3 of 6)		1,793,717,493
11.	Kentucky Jurisdictional Sales		1,544,546,376
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.16132317
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (49,688)

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : March 2012

1.	Last FAC Rate Billed		($0.00010)
2.	KWH Billed at Above Rate		1,471,376,467
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ (147,138)
4.	KWH Used to Determine Last FAC Rate		1,997,349,084
5.	Non-Jurisdictional KWH (Included in Line 4)		282,098,142
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,715,250,942
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ (171,525)
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ 24,387
10.	Total Sales "Sm" (From Page 3 of 6)		1,625,540,682
11.	Kentucky Jurisdictional Sales		1,407,528,999
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15488966
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ 28,164

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : April 2012

1.	Last FAC Rate Billed		$0.00054
2.	KWH Billed at Above Rate		1,336,068,601
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 721,477
4.	KWH Used to Determine Last FAC Rate		1,793,717,493
5.	Non-Jurisdictional KWH (Included in Line 4)		249,171,117
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,544,546,376
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 834,055
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (112,578)
10.	Total Sales "Sm" (From Page 3 of 6)		1,531,012,846
11.	Kentucky Jurisdictional Sales		1,330,464,128
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15073591
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (129,548)

KENTUCKY UTILITIES COMPANY

FUEL ADJUSTMENT CLAUSE
OVER OR (UNDER) RECOVERY SCHEDULE

Expense Month : May 2012

1.	Last FAC Rate Billed		$0.00051
2.	KWH Billed at Above Rate		1,357,491,045
3.	FAC Revenue/(Refund)	(Line 1 x Line 2)	$ 692,320
4.	KWH Used to Determine Last FAC Rate		1,625,540,682
5.	Non-Jurisdictional KWH (Included in Line 4)		218,011,683
6.	Kentucky Jurisdictional KWH	(Line 4 - Line 5)	1,407,528,999
7.	Revised FAC Rate Billed, if prior period adjustment is needed (See Note 1)		$0.00000
8.	Recoverable FAC Revenue/(Refund)	(Line 1 x Line 6)	$ 717,840
9.	Over or (Under) Recovery	(Line 3 - Line 8)	$ (25,520)
10.	Total Sales "Sm" (From Page 3 of 6)		1,761,997,776
11.	Kentucky Jurisdictional Sales		1,525,854,303
12.	Total Sales Divided by Kentucky Jurisdictional Sales	(Line 10 / Line 11)	1.15476148
13.	Total Company Over or (Under) Recovery	(Line 9 x Line 12)	$ (29,470)

Reference Schedule

1.05

Kentucky Utilities Company
Electric Utility Revenues and Expenses
March 31, 2012

≤ A 30,202,040

	Current Month		Year to Date		Year Ended Current Month	
	This Year	Last Year	This Year	Last Year	This Year	Last Year
Residential Sales	$ 35,320,469.48	$ 42,504,856.81	$ 139,236,986.17	$ 155,537,850.76	$ 509,303,762.85	$ 544,479,056.31
Small Commercial and Industrial Sales	15,057,381.44	15,020,039.84	45,827,187.48	48,200,187.74	181,449,246.41	180,565,930.30
Large Commercial Sales	13,103,480.99	13,390,629.88	35,433,355.62	38,671,497.10	159,939,302.10	169,661,902.75
Industrial Sales	28,831,710.07	27,174,686.34	85,016,704.75	78,851,509.11	342,664,408.80	326,494,357.08
Mine Power	3,618,541.30	4,265,852.45	10,819,792.46	11,723,637.60	43,926,568.66	46,678,614.46
Public Street and Highway Lighting	959,524.35	893,492.95	2,558,647.75	2,959,712.76	10,746,104.73	11,393,626.40
Other Sales to Public Authorities	8,958,271.57	8,627,340.53	26,400,965.75	25,138,981.59	111,947,307.06	107,874,994.09
Municipal Pumping	419,755.59	410,952.47	1,206,447.65	1,203,366.27	4,874,900.92	4,795,060.77
Rate Refunds	-	-	-	-	-	355,385.29
Total Electric Revenue - Ultimate Consumers	106,269,134.79	112,287,851.27	346,500,087.63	362,286,742.93	1,364,851,601.53	1,392,298,927.45
Sales for Resale	4,939.77	74,892.77	18,433.21	500,799.86	3,881,936.77 A	605,392.21
Intercompany Sales for Resale	552,290.18	2,910,310.47	3,596,428.17	9,678,317.19	26,320,103.50 A	16,554,836.06
Wholesale Sales	7,357,757.31	7,759,296.49	23,535,962.32	26,054,306.38	101,211,847.47	104,103,608.36
Settled Swap Revenue	-	2,887.10	-	19,950.37	211,887.80	35,222.36
Settled Swap Expense	-	(1,913.48)	-	(22,752.00)	(551,781.43)	(29,225.08)
Late Charge Payments	694,592.58	724,565.99	1,980,161.99	2,524,086.15	7,125,785.62	9,327,112.72
Miscellaneous Service Revenue	166,888.80	238,785.47	473,796.85	593,482.68	2,350,977.04	2,382,727.20
Rent from Electric Property	237,931.98	55,080.94	699,241.98	217,077.32	2,338,708.03	1,057,961.26
Other Electric Revenue	824,342.90	1,060,931.37	3,140,080.56	3,573,210.82	14,294,890.78	11,260,808.43
Total Electric Operating Revenue	116,107,878.31	125,112,688.39	379,944,192.71	405,425,221.70	1,522,035,957.11	1,537,597,370.97
Fuel	34,915,225.01	38,342,446.16	120,547,052.36	125,437,048.91	485,118,156.85	461,557,765.74
Operation Expenses	4,359,478.61	4,631,728.66	13,614,905.39	13,520,366.58	55,522,649.66	49,182,269.79
Maintenance	9,325,952.05	8,890,079.26	20,032,847.31	17,211,473.62	69,169,573.87	62,383,698.99
Rents	1,277.62	1,240.04	3,832.86	3,721.20	15,034.42	18,606.90
Total Steam Power Generation Expenses	48,601,933.29	51,865,494.12	154,198,637.92	156,172,610.31	609,825,414.80	573,142,341.42
Operation Expenses	1,974.04	1,380.03	4,593.23	17,309.73	52,581.35	63,082.12
Maintenance	23,083.30	25,306.03	56,326.63	52,808.30	430,436.12	491,838.88
Rents	-	-	-	-	-	-
Total Hydraulic Generation Expenses	25,057.34	26,686.06	60,919.86	70,118.03	483,017.47	554,921.00
Fuel	2,008,793.06	1,832,752.71	4,866,018.73	5,807,308.12	31,699,199.32	39,586,729.03
Operation Expenses	57,372.39	67,941.98	168,767.87	167,929.71	649,491.16	574,979.58
Maintenance	135,629.59	708,305.71	541,245.91	1,204,789.95	2,124,816.83	5,849,157.62
Rents	4,007.07	3,840.22	9,974.07	7,581.34	34,454.32	37,827.62
Total Other Power Generation Expenses	2,205,802.11	2,612,840.62	5,586,006.58	7,187,609.12	34,507,961.63	46,048,693.85
Purchased Power	9,451,423.62	10,835,473.30	28,285,722.36	33,571,400.29	103,829,269.81	154,190,992.53
System Control and Load Dispatch	162,815.20	192,187.98	522,918.17	610,843.86	1,841,937.28	2,035,795.77
Other Expenses	6,650.87	105,662.52	53,985.91	220,060.73	403,737.86	434,265.69
Total Other Power Supply Expenses	9,620,889.69	11,133,323.80	28,862,626.44	34,402,304.88	106,074,944.95	156,661,053.99
Total Power Production Expenses	$ 60,453,682.43	$ 65,638,344.60	$ 188,708,190.80	$ 197,832,642.34	$ 750,891,338.85	$ 776,407,010.26

April 26, 2012

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor

For the Expense Month of April 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR-DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,212,576,264
(2)	RB / 12		=	$	101,048,022
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4)	OE		=	$	5,661,285
(5)	BAS		=	$	37,954
(6)	BR		=	$	-
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	16,779,033

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		87.31%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	14,649,774
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		(881,730)
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		13,768,044
(13)	Revenue Collected through Base Rates	=	$	10,044,427
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	3,723,617
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	107,531,674
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		3.46%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor

For the Expense Month of May 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR - DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,211,354,448
(2)	RB / 12		=	$	100,946,204
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4)	OE		=	$	5,857,242
(5)	BAS		=	$	(8,495)
(6)	BR		=	$	-
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	17,010,198

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		84.19%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	14,320,886
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		(881,730)
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		13,439,156
(13)	Revenue Collected through Base Rates	=	$	9,618,565
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	3,820,591
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	108,246,609
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		3.53%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and Jurisdictional Surcharge Billing Factor

For the Expense Month of June 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR -DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,214,206,242
(2)	RB / 12		=	$	101,183,854
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4)	OE		=	$	6,093,956
(5)	BAS		=	$	(9,720)
(6)	BR		=	$	-
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	17,274,374

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		84.42%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	14,583,027
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		(881,730)
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		13,701,297
(13)	Revenue Collected through Base Rates	=	$	11,018,257
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	2,683,040
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	109,115,040
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		2.46%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor

For the Expense Month of July 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR -DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,212,691,706
(2)	RB / 12		=	$	101,057,642
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4)	OE		=	$	5,973,395
(5)	BAS		=	$	(1,066)
(6)	BR		=	$	-
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	17,131,224

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		85.70%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	14,681,459
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		(881,730)
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		13,799,729
(13)	Revenue Collected through Base Rates	=	$	11,760,729
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	2,039,000
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	109,303,925
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		1.87%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and Jurisdictional Surcharge Billing Factor

For the Expense Month of August 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR -DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,213,318,388
(2)	RB / 12		=	$	101,109,866
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4)	OE		=	$	6,543,787
(5)	BAS		=	$	(12,812)
(6)	BR		=	$	-
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	17,719,128

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		87.18%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	15,447,536
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		(881,732)
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		14,565,804
(13)	Revenue Collected through Base Rates	=	$	12,465,088
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	2,100,716
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	109,140,745
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		1.92%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor

For the Expense Month of September 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR -DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,210,886,436
(2)	RB / 12		=	$	100,907,203
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4)	OE		=	$	5,909,919
(5)	BAS		=	$	(10,294)
(6)	BR		=	$	-
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	17,060,369

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		87.51%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	14,929,529
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		-
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		14,929,529
(13)	Revenue Collected through Base Rates	=	$	11,546,729
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	3,382,800
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	108,584,502
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		3.12%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor

For the Expense Month of October 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR -DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,227,064,849
(2)	RB / 12		=	$	102,255,404
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4)	OE		=	$	5,757,759
(5)	BAS		=	$	(9,565)
(6)	BR		=	$	-
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	17,056,321

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		85.36%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	14,559,276
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		-
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		14,559,276
(13)	Revenue Collected through Base Rates	=	$	10,611,735
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	3,947,541
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	108,871,982
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		**3.63%**

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and Jurisdictional Surcharge Billing Factor

For the Expense Month of November 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR - DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

				Environmental Compliance Plans
(1) RB		=	$	1,225,988,797
(2) RB / 12		=	$	102,165,733
(3) (ROR + (ROR - DR) (TR / (1 - TR)))		=		11.04%
(4) OE		=	$	6,086,129
(5) BAS		=	$	(4,271)
(6) BR		=	$	-
(7) E(m)	(2) x (3) + (4) - (5) + (6)	=	$	17,369,497

Calculation of Jurisdictional Environmental Surcharge Billing Factor

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.00	=		86.51%
(9)	Jurisdictional E(m) = E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	15,026,352
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2010-00474	=		-
(11)	Prior Period Adjustment (if necessary)	=		-
(12)	Adjusted Jurisdictional E(m) [(9) + (10) + (11)]	=		15,026,352
(13)	Revenue Collected through Base Rates	=	$	9,449,751
(14)	Net Jurisdictional E(m) = Jurisdictional E(m) less Expense Month Revenue Collected Through Base Rates [(12) - (13)]	=	$	5,576,601
(15)	Jurisdictional R(m) = Average Monthly Jurisdictional Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$	108,673,513
(16)	Jurisdictional Environmental Surcharge Billing Factor [(14) ÷ (15)]	=		5.13%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and Jurisdictional Surcharge Billing Factor

For the Expense Month of December 2011

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR - DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

				Pre-2011 Environmental Compliance Plans		2011 Environmental Compliance Plans
(1)	RB		= $	1,241,656,918	$	19,369,355
(2)	RB / 12		= $	103,471,410	$	1,614,113
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=	11.04%		10.59%
(4)	OE		= $	5,249,209	$	936,843
(5)	BAS		= $	2,416		Not Applicable
(6)	BR		= $	-		Not Applicable
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	= $	16,670,037	$	1,107,778
(8)	Total E(m) = sum of Pre-2011 E(m) + 2011 E(m)		= $	17,777,815		

Calculation of Adjusted Total Jurisdictional E(m)

(9)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=	83.93%
(10)	Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(8) x (9)]	= $	14,920,920
(11)	Prior Period Adjustment related to Rate Base or OE (if necessary)	= $	-
(12)	Adjusted Total Jurisdictional E(m) [(10) + (11)]	=	14,920,920

Calculation of Group Environmental Surcharge Billing Factors

			GROUP 1 (Total Revenue)		GROUP 2 (Net Revenue)
(13)	Revenue as a Percentage of Total Revenue for Current Month -- ES Form 3.00	=	100%		0%
(14)	Group E(m) [(12) x (13)]	= $	14,920,920	$	-
(15)	Adjustment for (Over)/Under-collection pursuant to Case No.	= $	-	$	-
(16)	Prior Period Adjustment related to Revenue (if necessary)	= $	-	$	-
(17)	Revenue Collected through Base Rates	= $	10,705,782	$	-
(18)	Net Group E(m) = Group E(m) less Expense Month Revenue Collected Through Base Rates [(14) + (15) + (16) - (17)]	= $	4,215,138	$	-
(19)	Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	= $	107,595,608	$	-
(20)	Group Environmental Surcharge Billing Factors [(18) ÷ (19)]	=	3.92%		0.00%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Monthly Average Revenue Computation of R (m) for GROUP 1 AND GROUP 2

For the Month Ended: January 31, 2012

GROUP 1 (Total Revenues) - Kentucky Jurisdictional Revenues

(1) Month	(2) Non-fuel Base Rate Revenues	(3) Base Rate Fuel Component	(4) Fuel Clause Revenues	(5) DSM Revenues	(6) Environmental Surcharge Revenues	(7) Total (2)+(3)+(4)+(5)+(6)	(8) Total Excluding Environmental Surcharge (7)-(6)
Feb-11	$ 32,635,322	$ 18,969,026	$ 1,088,872	$ 1,623,831	$ 1,396,963	$ 55,714,014	$ 54,317,051
Mar-11	27,450,296	15,266,098	(3,093)	1,299,831	52,404	$ 44,065,538	$ 44,013,133
Apr-11	23,497,876	12,598,013	(77,729)	954,628	924,135	$ 37,896,924	$ 36,972,789
May-11	20,385,022	10,436,993	(223,356)	785,163	846,707	$ 32,230,529	$ 31,383,822
Jun-11	25,633,377	13,896,895	147,165	917,307	1,406,254	$ 42,000,998	$ 40,594,743
Jul-11	27,603,951	14,758,887	765,845	1,016,977	1,557,949	$ 45,703,610	$ 44,145,661
Aug-11	31,406,289	17,329,922	706,301	1,191,044	1,252,761	$ 51,886,318	$ 50,633,557
Sep-11	26,501,643	14,151,999	1,659,425	964,630	812,851	$ 44,090,546	$ 43,277,696
Oct-11	19,821,945	9,769,750	878,169	654,011	596,602	$ 31,720,477	$ 31,123,875
Nov-11	20,589,623	10,316,815	638,564	694,309	998,827	$ 33,238,137	$ 32,239,310
Dec-11	26,276,488	14,063,413	(1,101,854)	958,158	1,456,145	$ 41,652,350	$ 40,196,204
Jan-12	32,954,435	18,495,325	(400,088)	1,269,757	2,672,773	$ 54,992,202	$ 52,319,429
Average Monthly Jurisdictional Revenues, Excluding Environmental Surcharge, for 12 Months Ending Current Expense Month.							$ 41,768,106
Average Kentucky Jurisdictional Revenues excluding Environmental Surcharge for 12-months ending with Current Month =							$ 105,753,858
GROUP 1 Revenues as a Percentage of Total Revenues for 12-months ending with the Current Month							39.50%

GROUP 2 (Net Revenues) - Kentucky Jurisdictional Revenues

(1) Month	(2) Non-fuel Base Rate Revenues	(3) Base Rate Fuel Component	(4) Fuel Clause Revenues	(5) DSM Revenues	(6) Environmental Surcharge Revenues	(7) Total (2)+(3)+(4)+(5)+(6)	(8) Total Excluding Environmental Surcharge (7)-(6)	(9) Total Non-Fuel Revenues plus DSM (2)+(5)
Feb-11	$ 34,402,849	$ 26,240,417	$ 1,346,151	$ 282,180	$ 1,629,246	$ 63,900,843	$ 62,271,597	$ 34,685,029
Mar-11	34,720,057	26,639,771	48,268	268,703	117,396	$ 61,794,195	$ 61,676,800	$ 34,988,760
Apr-11	33,345,481	25,406,117	(151,000)	309,088	1,436,350	$ 60,346,036	$ 58,909,686	$ 33,654,569
May-11	35,548,343	25,265,360	(518,887)	302,065	1,625,026	$ 62,221,907	$ 60,596,881	$ 35,850,408
Jun-11	38,641,173	28,143,767	234,618	354,204	2,292,913	$ 69,666,675	$ 67,373,762	$ 38,995,377
Jul-11	39,964,216	27,915,373	1,354,949	378,470	2,453,836	$ 72,066,844	$ 69,613,008	$ 40,342,687
Aug-11	41,212,938	29,572,380	1,210,630	413,537	1,819,735	$ 74,229,221	$ 72,409,486	$ 41,626,475
Sep-11	39,896,796	29,034,741	3,306,788	378,303	1,375,333	$ 73,991,962	$ 72,616,629	$ 40,275,099
Oct-11	37,569,253	29,162,944	2,607,431	308,514	1,331,982	$ 70,980,124	$ 69,648,142	$ 37,877,767
Nov-11	32,115,248	23,240,756	1,440,684	268,721	1,750,691	$ 58,816,099	$ 57,065,409	$ 32,383,969
Dec-11	33,760,202	25,376,140	(1,768,964)	314,423	2,075,423	$ 59,757,223	$ 57,681,800	$ 34,074,625
Jan-12	33,713,169	24,534,863	(612,116)	329,908	2,915,836	$ 60,881,660	$ 57,965,824	$ 34,043,077
Average Monthly Jurisdictional Revenues, Excluding Environmental Surcharge and Fuel, for 12 Months Ending Current Expense Month.							$ 63,985,752	$ 36,566,487
Average Kentucky Jurisdictional Revenues excluding Environmental Surcharge for 12-months ending with Current Month =							$ 105,753,858	
GROUP 2 Revenues as a Percentage of Total Revenues for 12-months ending with the Current Month							60.50%	

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Monthly Average Revenue Computation of R (m) for GROUP 1 AND GROUP 2

For the Month Ended: February 29, 2012

	GROUP 1 (Total Revenues) - Kentucky Jurisdictional Revenues						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Month	Non-fuel Base Rate Revenues	Base Rate Fuel Component	Fuel Clause Revenues	DSM Revenues	Environmental Surcharge Revenues	Total (2)+(3)+(4)+(5)+(6)	Total Excluding Environmental Surcharge (7)-(6)
Mar-11	$ 27,450,296	$ 15,266,098	$ (3,093)	$ 1,299,831	$ 52,404	$ 44,065,538	$ 44,013,133
Apr-11	23,497,876	12,598,013	(77,729)	954,628	924,135	$ 37,896,924	$ 36,972,789
May-11	20,385,022	10,436,993	(223,356)	785,163	846,707	$ 32,230,529	$ 31,383,822
Jun-11	25,633,377	13,896,895	147,165	917,307	1,406,254	$ 42,000,998	$ 40,594,743
Jul-11	27,603,951	14,758,887	765,845	1,016,977	1,557,949	$ 45,703,610	$ 44,145,661
Aug-11	31,406,289	17,329,922	706,301	1,191,044	1,252,761	$ 51,886,318	$ 50,633,557
Sep-11	26,501,643	14,151,999	1,659,425	964,630	812,851	$ 44,090,546	$ 43,277,696
Oct-11	19,821,945	9,769,750	878,169	654,011	596,602	$ 31,720,477	$ 31,123,875
Nov-11	20,589,623	10,316,815	638,564	694,309	998,827	$ 33,238,137	$ 32,239,310
Dec-11	26,276,488	14,063,413	(1,101,854)	958,158	1,456,145	$ 41,652,350	$ 40,196,204
Jan-12	32,954,435	18,495,325	(400,088)	1,269,757	2,672,773	$ 54,992,202	$ 52,319,430
Feb-12	29,895,580	16,397,981	(218,606)	1,124,438	1,859,611	$ 49,059,003	$ 47,199,392
Average Monthly Jurisdictional Revenues, Excluding Environmental Surcharge, for 12 Months Ending Current Expense Month.							$ 41,174,967
Average Kentucky Jurisdictional Revenues excluding Environmental Surcharge for 12-months ending with Current Month =							$ 105,423,640
GROUP 1 Revenues as a Percentage of Total Revenues for 12-months ending with the Current Month							39.06%

	GROUP 2 (Net Revenues) - Kentucky Jurisdictional Revenues							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Month	Non-fuel Base Rate Revenues	Base Rate Fuel Component	Fuel Clause Revenues	DSM Revenues	Environmental Surcharge Revenues	Total (2)+(3)+(4)+(5)+(6)	Total Excluding Environmental Surcharge (7)-(6)	Total Non-Fuel Revenues plus DSM (2)+(5)
Mar-11	$ 34,720,057	$ 26,639,771	$ 48,268	$ 268,703	$ 117,396	$ 61,794,195	$ 61,676,800	$ 34,988,760
Apr-11	33,345,481	25,406,117	(151,000)	309,088	1,436,350	$ 60,346,036	$ 58,909,686	$ 33,654,569
May-11	35,548,343	25,265,360	(518,887)	302,065	1,625,026	$ 62,221,907	$ 60,596,881	$ 35,850,408
Jun-11	38,641,173	28,143,767	234,618	354,204	2,292,913	$ 69,666,675	$ 67,373,762	$ 38,995,377
Jul-11	39,964,216	27,915,373	1,354,949	378,470	2,453,836	$ 72,066,844	$ 69,613,008	$ 40,342,687
Aug-11	41,212,938	29,572,380	1,210,630	413,537	1,819,735	$ 74,229,221	$ 72,409,486	$ 41,626,475
Sep-11	39,896,796	29,034,741	3,306,788	378,303	1,375,333	$ 73,991,962	$ 72,616,629	$ 40,275,099
Oct-11	37,569,253	29,162,944	2,607,431	308,514	1,331,982	$ 70,980,124	$ 69,648,142	$ 37,877,767
Nov-11	32,115,248	23,240,756	1,440,684	268,721	1,750,691	$ 58,816,099	$ 57,065,409	$ 32,383,969
Dec-11	33,760,202	25,376,140	(1,768,964)	314,423	2,075,423	$ 59,757,223	$ 57,681,800	$ 34,074,625
Jan-12	33,713,169	24,534,863	(612,116)	329,908	2,915,836	$ 60,881,660	$ 57,965,824	$ 34,043,077
Feb-12	36,480,995	29,058,194	(413,455)	300,909	2,667,767	$ 68,094,410	$ 65,426,643	$ 36,781,904
Average Monthly Jurisdictional Revenues, Excluding Environmental Surcharge and Fuel, for 12 Months Ending Current Expense Month.							$ 64,248,672	$ 36,741,226
Average Kentucky Jurisdictional Revenues excluding Environmental Surcharge for 12-months ending with Current Month =							$ 105,423,640	
GROUP 2 Revenues as a Percentage of Total Revenues for 12-months ending with the Current Month							60.94%	

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Monthly Average Revenue Computation of R (m) for GROUP 1 AND GROUP 2

For the Month Ended: March 31, 2012

	GROUP 1 (Total Revenues) - Kentucky Jurisdictional Revenues						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Month	Non-fuel Base Rate Revenues	Base Rate Fuel Component	Fuel Clause Revenues	DSM Revenues	Environmental Surcharge Revenues	Total (2)+(3)+(4)+(5)+(6)	Total Excluding Environmental Surcharge (7)-(6)
Apr-11	$ 23,497,876	$ 12,598,013	$ (77,729)	$ 954,628	$ 924,135	$ 37,896,924	$ 36,972,789
May-11	20,385,022	10,436,993	(223,356)	785,163	846,707	$ 32,230,529	$ 31,383,822
Jun-11	25,633,377	13,896,895	147,165	917,307	1,406,254	$ 42,000,998	$ 40,594,743
Jul-11	27,603,951	14,758,887	765,845	1,016,977	1,557,949	$ 45,703,610	$ 44,145,661
Aug-11	31,406,289	17,329,922	706,301	1,191,044	1,252,761	$ 51,886,318	$ 50,633,557
Sep-11	26,501,643	14,151,999	1,659,425	964,630	812,851	$ 44,090,546	$ 43,277,696
Oct-11	19,821,945	9,769,750	878,169	654,011	596,602	$ 31,720,477	$ 31,123,875
Nov-11	20,589,623	10,316,815	638,564	694,309	998,827	$ 33,238,137	$ 32,239,310
Dec-11	26,276,488	14,063,413	(1,101,854)	958,158	1,456,145	$ 41,652,350	$ 40,196,204
Jan-12	32,954,435	18,495,325	(400,088)	1,269,757	2,672,773	$ 54,992,202	$ 52,319,430
Feb-12	29,895,580	16,397,981	(218,606)	1,124,438	1,859,611	$ 49,059,003	$ 47,199,393
Mar-12	27,172,050	13,663,407	(53,037)	932,940	996,613	$ 42,711,972	$ 41,715,359
Average Monthly Jurisdictional Revenues, Excluding Environmental Surcharge, for 12 Months Ending Current Expense Month.							$ 40,983,486
Average Kentucky Jurisdictional Revenues excluding Environmental Surcharge for 12-months ending with Current Month =							$ 105,145,369
GROUP 1 Revenues as a Percentage of Total Revenues for 12-months ending with the Current Month							38.98%

	GROUP 2 (Net Revenues) - Kentucky Jurisdictional Revenues							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Month	Non-fuel Base Rate Revenues	Base Rate Fuel Component	Fuel Clause Revenues	DSM Revenues	Environmental Surcharge Revenues	Total (2)+(3)+(4)+(5)+(6)	Total Excluding Environmental Surcharge (7)-(6)	Total Non-Fuel Revenues plus DSM (2)+(5)
Apr-11	$ 33,345,481	$ 25,406,117	$ (151,000)	$ 309,088	$ 1,436,350	$ 60,346,036	$ 58,909,686	$ 33,654,569
May-11	35,548,343	25,265,360	(518,887)	302,065	1,625,026	$ 62,221,907	$ 60,596,881	$ 35,850,408
Jun-11	38,641,173	28,143,767	234,618	354,204	2,292,913	$ 69,666,675	$ 67,373,762	$ 38,995,377
Jul-11	39,964,216	27,915,373	1,354,949	378,470	2,453,836	$ 72,066,844	$ 69,613,008	$ 40,342,687
Aug-11	41,212,938	29,572,380	1,210,630	413,537	1,819,735	$ 74,229,221	$ 72,409,486	$ 41,626,475
Sep-11	39,896,796	29,034,741	3,306,788	378,303	1,375,333	$ 73,991,962	$ 72,616,629	$ 40,275,099
Oct-11	37,569,253	29,162,944	2,607,431	308,514	1,331,982	$ 70,980,124	$ 69,648,142	$ 37,877,767
Nov-11	32,115,248	23,240,756	1,440,684	268,721	1,750,691	$ 58,816,099	$ 57,065,409	$ 32,383,969
Dec-11	33,760,202	25,376,140	(1,768,964)	314,423	2,075,423	$ 59,757,223	$ 57,681,800	$ 34,074,625
Jan-12	33,713,169	24,534,863	(612,116)	329,908	2,915,836	$ 60,881,660	$ 57,965,824	$ 34,043,077
Feb-12	36,480,995	29,058,194	(413,455)	300,909	2,667,767	$ 68,094,410	$ 65,426,643	$ 36,781,904
Mar-12	34,750,615	25,712,288	(107,803)	280,220	1,511,947	$ 62,147,266	$ 60,635,320	$ 35,030,835
Average Monthly Jurisdictional Revenues, Excluding Environmental Surcharge and Fuel, for 12 Months Ending Current Expense Month.							$ 64,161,882	$ 36,744,733
Average Kentucky Jurisdictional Revenues excluding Environmental Surcharge for 12-months ending with Current Month =							$ 105,145,369	
GROUP 2 Revenues as a Percentage of Total Revenues for 12-months ending with the Current Month							61.02%	

Reference Schedule

1.06

Louisville Gas & Electric and Kentucky Utilities Companies
Revenue Component Variances
12 Months Ending March 2012 vs. Budget
(in whole dollars, except for price per unit data)

KU (Electric) (KY and TN only)

BILLED REVENUES

	KWH	Cust. Charge Revenue	Demand Revenue	Demand Rev. (Demand ECR)	Energy Rev. (excl. fuel)	Energy Rev. (Base ECR)	Energy Rev. (Base Fuel)	FAC Revenue	DSM Revenue	ECR Revenue	MSR Revenue	STOD, ESM & VDT Revenue	Total Revenue	$/MWH
TOTAL Ultimate Consumers:														
Actual	18,162,036,245	$ 70,758,063	$ 156,058,466	$ 71,813,896	$ 376,454,798	$ 61,644,458	$ 488,302,320	$ 9,303,675	$ 15,401,724	$ 38,638,066	$ 628	$ 12	$ 1,288,376,108	$ 70.94
Budget	18,178,093,659	$ 76,697,098	$ 176,446,554	$ 65,073,242	$ 379,917,158	$ 60,100,503	$ 497,198,237	$ 25,005,822	$ 22,080,952	$ 63,298,875	$ -	$ -	$ 1,365,818,441	$ 75.14
Variance	(16,057,414)	$ (5,939,035)	$ (20,388,088)	$ 6,740,654	$ (3,462,360)	$ 1,543,955	$ (8,895,917)	$ (15,702,147)	$ (6,679,228)	$ (24,660,809)	$ 628	$ 12	$ (77,442,333)	$ (4.20)
Dollars per MWH - Actual		$ 3.90	$ 8.59	$ 3.95	$ 20.73	$ 3.39	$ 26.89	$ 0.51	$ 0.85	$ 2.13	$ -	$ -	$ 70.94	
Dollars per MWH - Budget		$ 4.22	$ 9.71	$ 3.58	$ 20.90	$ 3.31	$ 27.35	$ 1.38	$ 1.21	$ 3.48	$ -	$ -	$ 75.14	
Wholesale-Municipals:														
Actual	1,888,524,565	$ 380,667	$ 41,664,328	$ -	$ 7,537,318	$ -	$ 46,325,508	$ 5,117,553	$ -	$ -	$ -	$ -	$ 101,025,373	$ 53.49
Budget	2,014,899,358	$ -	$ 47,485,032	$ -	$ 8,007,275	$ -	$ 49,425,482	$ 2,733,044	$ -	$ -	$ -	$ -	$ 107,650,833	$ 53.43
Variance	(126,374,793)	$ 380,667	$ (5,820,704)	$ -	$ (469,957)	$ -	$ (3,099,974)	$ 2,384,509	$ -	$ -	$ -	$ -	$ (6,625,460)	$ 0.07
Dollars per MWH - Actual		$ 0.20	$ 22.06	$ -	$ 3.99	$ -	$ 24.53	$ 2.71	$ -	$ -	$ -	$ -	$ 53.49	
Dollars per MWH - Budget		$ -	$ 23.57	$ -	$ 3.97	$ -	$ 24.53	$ 1.36	$ -	$ -	$ -	$ -	$ 53.43	
TOTAL Internal Sales:														
Actual	20,050,560,810	$ 71,138,730	$ 197,722,794	$ 71,813,896	$ 383,992,116	$ 61,644,458	$ 534,627,827	$ 14,421,229	$ 15,401,724	$ 38,638,066	$ 628	$ 12	$ 1,389,401,481	$ 69.29
Budget	20,192,993,017	$ 76,697,098	$ 223,931,586	$ 65,073,242	$ 387,924,433	$ 60,100,503	$ 546,623,719	$ 27,738,866	$ 22,080,952	$ 63,298,875	$ -	$ -	$ 1,473,469,274	$ 72.97
Variance	(142,432,207)	$ (5,558,368)	$ (26,208,792)	$ 6,740,654	$ (3,932,317)	$ 1,543,955	$ (11,995,892)	$ (13,317,637)	$ (6,679,228)	$ (24,660,809)	$ 628	$ 12	$ (84,067,793)	$ (3.67)
Dollars per MWH - Actual		$ 3.55	$ 9.86	$ 3.58	$ 19.15	$ 3.07	$ 26.66	$ 0.72	$ 0.77	$ 1.93	$ -	$ -	$ 69.29	
Dollars per MWH - Budget		$ 3.80	$ 11.09	$ 3.22	$ 19.21	$ 2.98	$ 27.07	$ 1.37	$ 1.09	$ 3.13	$ -	$ -	$ 72.97	

ACCRUED REVENUES

	KWH	Cust. Charge Revenue	Demand Revenue	Demand Rev. (Demand ECR)	Energy Rev. (excl. fuel)	Energy Rev. (Base ECR)	Energy Rev. (Base Fuel)	FAC Revenue	DSM Revenue	ECR Revenue	MSR Revenue	STOD, ESM & VDT Revenue	Total Revenue	$/MWH
TOTAL Ultimate Consumers:														
Actual: Unbilled Accrual	754,816,000	$ 3,214,000	$ 7,772,000	$ 3,481,000	$ 15,852,000	$ 3,197,000	$ 20,127,000	$ 346,000	$ 663,000	$ 1,875,000	$ -	$ -	$ 56,527,000	$ 74.89
Actual: Unbilled Reversal	(864,399,000)	$ (3,131,000)	$ (7,790,000)	$ (3,379,000)	$ (18,482,000)	$ (2,772,000)	$ (23,800,000)	$ 92,000	$ (851,000)	$ (1,521,000)	$ -	$ -	$ (61,634,000)	$ 71.30
Actual: Other Accrued Revenues	-	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,254,000	$ 5,283,177	$ 900,841	$ -	$ -	$ 8,438,018	$ -
Actual: Net Accrued Revenues	(109,583,000)	$ 83,000	$ (18,000)	$ 102,000	$ (2,630,000)	$ 425,000	$ (3,673,000)	$ 2,692,000	$ 5,095,177	$ 1,254,841	$ -	$ -	$ 3,331,018	$ (30.40)
Budget: Unbilled Accrual	893,691,785	$ -	$ -	$ -	$ 18,906,344	$ 2,895,902	$ 23,843,697	$ 2,528,349	$ 866,805	$ 2,560,815	$ -	$ -	$ 51,601,912	$ 57.74
Budget: Unbilled Reversal	(901,162,870)	$ -	$ -	$ -	$ (18,151,177)	$ (3,066,524)	$ (24,818,025)	$ (2,565,471)	$ (1,105,248)	$ (2,485,436)	$ -	$ -	$ (52,191,881)	$ 57.92
Budget: Other Accrued Revs.	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Budget: Net Accrued Revs.	(7,471,085)	$ -	$ -	$ -	$ 755,167	$ (170,622)	$ (974,328)	$ (37,122)	$ (238,443)	$ 75,379	$ -	$ -	$ (589,969)	$ 78.97
Wholesale-Municipals:														
Actual: Unbilled Accrual	142,281,194	$ 27,869	$ 2,871,383	$ -	$ 570,198	$ -	$ 3,490,158	$ 330,997	$ -	$ -	$ -	$ -	$ 7,290,606	$ 51.24
Actual: Unbilled Reversal	(150,590,000)	$ -	$ (2,550,132)	$ -	$ (596,000)	$ -	$ (3,694,000)	$ (264,000)	$ -	$ -	$ -	$ -	$ (7,104,132)	$ 47.18
Actual: Other Accrued Revenues	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Actual: Net Accrued Revenues	(8,308,806)	$ 27,869	$ 321,252	$ -	$ (25,802)	$ -	$ (203,842)	$ 66,997	$ -	$ -	$ -	$ -	$ 186,474	$ (22.44)
Budget: Unbilled Accrual	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Budget: Unbilled Reversal	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Budget: Other Accrued Revs.	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Budget: Net Accrued Revs.	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

OPERATING REVENUES

	KWH	Cust. Charge Revenue	Demand Revenue	Demand Rev. (Demand ECR)	Energy Rev. (excl. fuel)	Energy Rev. (Base ECR)	Energy Rev. (Base Fuel)	FAC Revenue	DSM Revenue	ECR Revenue	MSR Revenue	STOD, ESM & VDT Revenue	Total Revenue	$/MWH
TOTAL Ultimate Consumers:														
Actual	18,052,453,245	$ 70,841,063	$ 156,040,466	$ 71,915,896	$ 373,824,798	$ 62,069,458	$ 484,629,320	$ 11,995,675	$ 20,496,901	$ 39,892,907	$ 628	$ 12	$ 1,291,707,126	$ 71.55
Budget	18,170,622,574	$ 76,697,098	$ 176,446,554	$ 65,073,242	$ 380,672,325	$ 59,929,881	$ 496,223,909	$ 24,968,700	$ 21,842,509	$ 63,374,254	$ -	$ -	$ 1,365,228,472	$ 75.13
Variance	(118,169,329)	$ (5,856,035)	$ (20,406,088)	$ 6,842,654	$ (6,847,527)	$ 2,139,577	$ (11,594,589)	$ (12,973,025)	$ (1,345,608)	$ (23,481,347)	$ 628	$ 12	$ (73,521,346)	$ (3.58)
Dollars per MWH - Actual		$ 3.92	$ 8.64	$ 3.98	$ 20.71	$ 3.44	$ 26.85	$ 0.66	$ 1.14	$ 2.21	$ -	$ -	$ 71.55	
Dollars per MWH - Budget		$ 4.22	$ 9.71	$ 3.58	$ 20.95	$ 3.30	$ 27.31	$ 1.37	$ 1.20	$ 3.49	$ -	$ -	$ 75.13	
Wholesale-Municipals:														
Actual	1,880,215,759	$ 408,536	$ 41,985,579	$ -	$ 7,511,516	$ -	$ 46,121,665	$ 5,184,551	$ -	$ -	$ -	$ -	$ 101,211,847	$ 53.83
Budget	2,014,899,358	$ -	$ 47,485,032	$ -	$ 8,007,275	$ -	$ 49,425,482	$ 2,733,044	$ -	$ -	$ -	$ -	$ 107,650,833	$ 53.43
Variance	(134,683,599)	$ 408,536	$ (5,499,453)	$ -	$ (495,759)	$ -	$ (3,303,817)	$ 2,451,507	$ -	$ -	$ -	$ -	$ (6,438,986)	$ 0.40
Dollars per MWH - Actual		$ 0.22	$ 22.33	$ -	$ 4.00	$ -	$ 24.53	$ 2.76	$ -	$ -	$ -	$ -	$ 53.83	
Dollars per MWH - Budget		$ -	$ 23.57	$ -	$ 3.97	$ -	$ 24.53	$ 1.36	$ -	$ -	$ -	$ -	$ 53.43	
TOTAL Internal Sales:														
Actual	19,932,669,004	$ 71,249,599	$ 198,026,046	$ 71,915,896	$ 381,336,314	$ 62,069,458	$ 530,750,985	$ 17,180,226	$ 20,496,901	$ 39,892,907	$ 628	$ 12	$ 1,392,918,974	$ 69.88
Budget	20,185,521,932	$ 76,697,098	$ 223,931,586	$ 65,073,242	$ 388,679,600	$ 59,929,881	$ 545,649,391	$ 27,701,744	$ 21,842,509	$ 63,374,254	$ -	$ -	$ 1,472,879,305	$ 72.97
Variance	(252,852,928)	$ (5,447,499)	$ (25,905,540)	$ 6,842,654	$ (7,343,286)	$ 2,139,577	$ (14,898,406)	$ (10,521,518)	$ (1,345,608)	$ (23,481,347)	$ 628	$ 12	$ (79,960,331)	$ (3.09)
Dollars per MWH - Actual		$ 3.57	$ 9.93	$ 3.61	$ 19.13	$ 3.11	$ 26.63	$ 0.86	$ 1.03	$ 2.00	$ -	$ -	$ 69.88	
Dollars per MWH - Budget		$ 3.80	$ 11.09	$ 3.22	$ 19.26	$ 2.97	$ 27.03	$ 1.37	$ 1.08	$ 3.14	$ -	$ -	$ 72.97	

Reference Schedule

1.14

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220 West Main Street
Louisville, KY 40202

March 2, 2012

Subject: 2012 Accounting Expense for Retirement Plans

Dear Kelli:

Enclosed are exhibits illustrating the 2012 accounting expense for regulatory and financial accounting purposes for the retirement plans of LG&E and KU Energy LLC.

Compared to the 2012 projections prepared on April 28, 2011, the net periodic pension cost for financial accounting purposes decreases from $25.2 million to $16.7 million, the regulatory accounting expense decreases from $59.5 million to $50.8 million and the consolidated financial statement accounting expense decreased from $50.3 million to $43.1 million. Please see the attached analysis for the change in net periodic pension cost relative to the estimate provided on April 28, 2011.

A measurement date of December 31, 2011 was used in these calculations. Plan liabilities were based on census data collected as of September 30, 2011. The revised market values of assets as of December 31, 2011 were provided by you on February 3, 2012. All other methods, assumptions and plan provisions used in calculating the 2012 accounting expense are the same as those used in the December 31, 2011 disclosures, dated January 13, 2012.

Lastly, we reflected the following contributions, which were made on January 13, 2012:

Plan	Amount (In Millions)
LG&E Union	$12.6
Non-Union	
LG&E Utility	8.7
ServCo	15.6
KU	14.8
WKE	[redacted]
WKE Union	[redacted]
Total	[redacted]

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If you have any questions, please call me.

Mercer has prepared this report exclusively for LG&E and KU Energy LLC; subject to this limitation, LG&E and KU Energy LLC may direct that this report be provided to its auditors in connection with the audit of its financial statements. Mercer is not responsible for use of this report by any other party.

The only purpose of this report is to provide an actuarial estimate of the accounting expense for defined benefit plans of LG&E and KU Energy LLC for the fiscal year ending December 31, 2012.

This report may not be used for any other purpose. Mercer is not responsible for the consequences of any unauthorized use. Its content may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's permission.

All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents, no part may be taken out of context, used or relied upon without reference to the report as a whole.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

To prepare this report Mercer has used and relied on participant data as provided by LG&E and KU Energy LLC to Mercer Outsourcing as summarized on the attached exhibits. LG&E and KU Energy LLC is responsible for ensuring that such participant data provides an accurate description of all persons who are participants under the terms of the plan or otherwise entitled to benefits that is sufficiently comprehensive and accurate for the purposes of this report. If the data supplied are not sufficiently comprehensive and accurate for the purposes of this report, the valuation results may differ significantly from the results that would be obtained with such data; this may require a later revision of this report. Although Mercer has reviewed the data in accordance with Actuarial Standards of Practice No. 23, Mercer has not verified or audited any of the data or information provided.

Mercer has used and relied on the plan documents, including amendments, and interpretations of plan provisions, as summarized in the Plan Provisions section of the 2011 accounting valuation

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report, dated November, 2011 with the exception that for the LG&E Union Plan, the negotiated increases in the benefit multipliers were incorporated. Specifically, the multipliers increase to $72/$85/$91 on January 1, 2012, $74/$87/$94 on January 1, 2013 and $76/$90/$97 on January 1, 2014. LG&E and KU Energy LLC is solely responsible for the validity, accuracy and comprehensiveness of this information. If any data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and that the different interpretations could lead to different valuation results.

This report is based on our understanding of applicable law and regulations as of the valuation date. Mercer is not an accountant or auditor and is not responsible for the interpretation of, or compliance with, accounting standards; citations to,.and descriptions of accounting standards provided in this report are for reference purposes only. Mercer is not engaged in the practice of law. This report does not constitute and is not a substitute for legal advice.

The plan sponsor is ultimately responsible for selecting the plan's accounting policies, methods and assumptions. The policies, methods, and assumptions used in this valuation are described in the December 31, 2011 year end disclosure report, dated January 13, 2012. The plan sponsor is solely responsible for communicating to Mercer any changes required to those policies, methods and assumptions.

A valuation report is only a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict the plan's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the plan. Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the period of time over which benefits are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that, if used, in our judgment, would not have significantly affected our results. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

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Valuations do not affect the ultimate cost of the plan, only the timing of when benefit costs are recognized. Cost recognition occurs over time. If the costs recognized over a period of years are lower or higher than necessary, for whatever reason, normal and expected practice is to adjust future expense levels with a view to recognizing the entire cost of the plan over time.

To prepare the valuation report, assumptions are used in a forward looking financial and demographic model to present a single scenario from a wide range of possibilities; the results based on that single scenario are included in the valuation. The future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. A "sensitivity analysis" shows the degree to which results would be different if you substitute alternative assumptions within the range of possibilities for those utilized in this report. We have not been engaged to perform such a sensitivity analysis and thus the results of such an analysis are not included in this report. At LG&E and KU Energy LLC's request, Mercer is available to perform such a sensitivity analysis.

Assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. A change in assumptions is not an indication that prior assumptions were unreasonable when made.

This report was prepared in accordance with generally accepted actuarial principles and procedures. Based on the information provided to us, we believe that the actuarial assumptions are reasonable for the purposes described in this report.

LG&E and KU Energy LLC should notify Mercer promptly after receipt of the report if LG&E and KU Energy LLC disagrees with anything contained in the report or is aware of any information that would affect the results of the report that has not been communicated to Mercer or incorporated therein. The report will be deemed final and acceptable to LG&E and KU Energy LLC unless LG&E and KU Energy LLC promptly provides such notice to Mercer.

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I am available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. I am not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of my work.

Linda C. Myers

Linda C. Myers, F.S.A. **Enrolled Actuary (No. 11-04846)**	3/2/2012 **Date**

Copy: Dan Arbough, Kent Blake, Chris Garrett, Elliott Horne, Heather Metts, Ron Miller, Vaneeca Mottley, Ken Mudd, Lesley Pienaar, Valerie Scott, Cathy Shultz, Jeanne Wright, Henry Erk, Eric Geissler, Patrick Baker, Marcie Gunnell

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

Enclosures

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2012 Net Periodic Pension Cost for Qualified Plans

Regulatory Accounting Purposes

		NonUnion Retirement Plan					
	LG&E Union	LG&E	ServCo	KU	WKE	Total	WKE-Union
1. Service cost	$ 1,843,972	$ 1,895,083	$ 11,013,002	$ 7,075,655	$ [redacted]		
2. Interest cost	14,461,112	10,339,722	16,861,449	18,053,285			
3. Expected return on assets	(18,818,406)	(11,648,470)	(17,328,582)	(20,559,409)			
4. Amortizations:							
a. Transition	0	0	0	0			
b. Prior service cost	2,485,200	2,011,714	2,505,928	691,710			
c. Gain/loss	10,667,520	3,819,343	3,547,219	7,533,540			
5. Net periodic pension cost	**$ 10,639,398**	**$ 6,417,392**	**$ 16,599,016**	**$ 12,794,781**	**$**		

Financial Accounting Purposes

		NonUnion Retirement Plan					
	LG&E Union	LG&E	ServCo	KU	WKE	Total	WKE-Union
1. Service cost	$ 1,843,972	$ 1,895,083	$ 11,013,002	$ 7,075,655	$ [redacted]		
2. Interest cost	14,461,112	10,339,722	16,861,449	18,053,285			
3. Expected return on assets	(18,818,406)	(11,648,470)	(17,328,582)	(20,559,409)			
4. Amortizations:							
a. Transition	0	0	0	0			
b. Prior service cost	778,382	0	0	0			
c. Gain/loss	0	0	0	0			
5. Net periodic pension cost	**$ (1,734,940)**	**$ 586,335**	**$ 10,545,869**	**$ 4,569,531**	**$**		

2012 Net Periodic Pension Cost for Non-Qualified Plans

Regulatory Accounting Purposes

		Officer SERP			Restoration Plan					Qualified and Non-Qualified Plans
	[redacted] SERP	LG&E	ServCo	Total	LG&E	ServCo	KU	WKE	Total	Grand Total
1. Service cost	[redacted]									
2. Interest cost										
3. Expected return on assets										
4. Amortizations:										
a. Transition										
b. Prior service cost										
c. Gain/loss										
5. Net periodic pension cost										

Financial Accounting Purposes

		Officer SERP			Restoration Plan					
	[redacted] SERP	LG&E	ServCo	Total	LG&E	ServCo	KU	WKE	Total	
1. Service cost	[redacted]									
2. Interest cost										
3. Expected return on assets										
4. Amortizations:										
a. Transition										
b. Prior service cost										
c. Gain/loss										
5. Net periodic pension cost										

LG&E and KU ENERGY LLC RETIREMENT PLANS

COMPARISON OF PROJECTED 2012 EXPENSE CALCULATED ON APRIL 28, 2011 TO ACTUAL 2012 EXPENSE (In Millions)

	Financial Accounting Purposes	Regulatory Accounting Purposes	Consolidated Financial Statement Purposes*
2012 Projected Expense calculated on April 28, 2011	$25.2	$59.5	$50.3
Decrease due to reduction in salary increase assumption, taxable wage base increase assumption and COLA increase assumption	(5.8)	(9.4)	(7.9)
Decrease due to change in age 60 and age 62 retirement rates	(0.8)	(1.7)	(1.7)
Increase due to updating of mortality table	0.1	0.4	0.3
Increase due to reduction in discount rates	1.2	7.4	5.8
Increase due to unfavorable investment experience for 2011	0.1	0.2	0.2
Decrease due to net liability gains**	(3.3)	(5.6)	(3.9)
2012 Actual Expense	$16.7	$50.8	$43.1

* Consolidated Financial Statement Purposes is Regulatory accounting expense for LG&E Union Plan, LG&E division of Non-Union Plan and KU division of Non-Union Plan and Financial accounting expense for all else.

** Liability gains are mainly attributable to salaries being less than expected for 2010 when compared to 2009 which included 27 pay periods for participants in the LG&E and ServCo divisions.

LG&E AND KU ENERGY LLC RETIREMENT PLANS

SUMMARY OF PARTICIPANT DATA AS OF SEPTEMBER 30, 2011

	Qualified Plans		
	LG&E Union	Non-Union	WKE Union
Participants included in valuation			[redacted]
• Active	542	1,899	
• Inactive with deferred benefits	688	1,127	
• Inactive with immediate benefits	1,567	2,285	
• Total	2,797	5,311	
Active Statistics			
• Average age	50.3	51.0	
• Average years of service	24.9	23.4	
Inactive deferred statistics			
• Average age	54.4	52.0	
• Total annual benefits	$7,509,908	$11,159,445	
• Average annual benefits	$10,916	$9,902	
Inactive immediate statistics			
• Average age	67.5	71.1	
• Total annual benefits	$14,255,590	$30,781,226	
• Average annual benefits	$9,097	$13,471	

LG&E AND KU ENERGY LLC RETIREMENT PLANS

SUMMARY OF PARTICIPANT DATA AS OF SEPTEMBER 30, 2011

	Non-Qualified Plans		
	Officer's SERP	Restoration Plan	[redacted] SERP
Participants included in valuation	[redacted]	[redacted]	[redacted]
• Active	[redacted]	[redacted]	[redacted]
• Inactive with deferred benefits	[redacted]	[redacted]	[redacted]
• Inactive with immediate benefits	[redacted]	[redacted]	[redacted]
• Total	[redacted]	[redacted]	[redacted]
Active Statistics	[redacted]	[redacted]	[redacted]
• Average age	[redacted]	[redacted]	[redacted]
• Average years of service	[redacted]	[redacted]	[redacted]
Inactive deferred statistics	[redacted]	[redacted]	[redacted]
• Average age	[redacted]	[redacted]	[redacted]
• Total annual benefits	[redacted]	[redacted]	[redacted]
• Average annual benefits	[redacted]	[redacted]	[redacted]
Inactive immediate statistics	[redacted]	[redacted]	[redacted]
• Average age	[redacted]	[redacted]	[redacted]
• Total annual benefits	[redacted]	[redacted]	[redacted]
• Average annual benefits	[redacted]	[redacted]	[redacted]

Reference Schedule

1.14

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April 28, 2011

Subject: Post Employment Benefits Projections for 2011 – 2015

Dear Kelli:

Enclosed are exhibits illustrating the estimated FAS 112 liability and projected cash flow for the post employment benefits for disabled employees of LG&E and KU Energy LLC for the 2011 – 2015 fiscal years. The FAS 112 liability estimates reflect a 4.55% discount rate.

As discussed previously, the post employment benefit liability includes the actuarial present value of continued medical benefits and life insurance for each disabled employee and their dependents until the disabled's age 65 (benefits beyond age 65 are accounted for under FAS 106).

Future employees were projected to become disabled based on the same assumptions used on the determination of the 2011 FAS 106 expense. All other methods, plan provisions and assumptions are the same as those used in the determination of the December 31, 2010 FAS 112 liability, including a reduction in liability for Medicare-eligible disableds associated with the Medicare Modernization Act of 2003.

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Mercer has prepared this material exclusively for LG&E and KU Energy LLC to provide projected liabilities and cash flows under FAS 112 for the post employment benefits for disabled employees of LG&E and KU Energy LLC for the fiscal years ending 2011 - 2015. We make no representations regarding either the amount or existence of other liabilities that might be reportable.

This valuation report may not be used or relied upon by any other party or for any other purpose. Mercer is not responsible for the consequences of any unauthorized use.

This report material includes or is derived from projections of future funding and/or accounting costs and/or benefit related results. To prepare these projections or results, various actuarial assumptions, as described in the letter and exhibits were used to project a limited number of scenarios from a range of possibilities. However, the future is uncertain, and the plan's actual experience will likely differ from the assumptions utilized and the scenarios presented; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. This report has been created for a limited purpose, is presented at a particular point in time and should not be viewed as a prediction of the plan's future financial condition. To prepare the results shown in this report, various actuarial methods, as described in the letter and exhibits were used.

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios and not solely on the basis of a valuation report or reports.

To prepare this report, Mercer has used and relied upon financial data provided by LG&E and KU Energy LLC as well as participant data supplied by the plan sponsor. We have reviewed the financial and participant data for internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. We have also used and relied upon the plan documents, including amendments, supplied by the plan sponsor and summarized in the letter and exhibits. LG&E and KU Energy LLC is solely responsible for the validity, accuracy and comprehensiveness of this information; if the data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report.

MERCER

I am available to answer any questions on this material contained in the report, or to provide explanations or further details as may be appropriate. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. I am not aware of any relationship, including investments or other services that could create a conflict of interest, that would impair my objectivity

If you have any questions, please call me at 502-561-4622 or Patrick Baker at 502 561 4504.

Sincerely,

Marcie S Gunnell

Marcie S. Gunnell, A.S.A., M.A.A.A.
Principal

Copy:
Dan Arbough, Chris Garrett, Elliott Horne, Heather Metts, Ron Miller, Vaneeca Mottley, Ken Mudd, Lesley Pienaar, Brad Rives, Valerie Scott, Cathy Shultz, Jeanne Wright, Henry Erk, Linda Myers, Patrick Baker, Ryan Sloat, Eric Geissler

Enclosure

g:\hwg\c\lent\g\wp\2011 projections for 2011-2015 - fas 112.doc

LG&E & KU Energy. LLC

Estimated Year End FAS 112 Liability For Post-Employment Benefits For Disabled Employees

Liability Date	LG&E	KU	ServCo	International	WKE	Total
12/31/2011	4,311,798	5,422,837	2,186,069	[redacted]	[redacted]	[redacted]
12/31/2012	4,991,769	5,536,024	2,651,585			
12/31/2013	[redacted]					
12/31/2014						
12/31/2015						

Notes

1. Plan costs have been based on census data as of November 2010.
2. Future employees were projected to become disabled based on the assumptions used in the determination of the 2011 FAS 106 expense.
3. All other data, methods, plan provisions and assumptions (including 4.55% discount rate) are the same as those used in the determination of the December 31, 2010 FAS 112 liability, including a reduction in liability for Medicare-eligible disableds associated with the Medicare Modernization Act of 2003.

LG&E & KU Energy. LLC

Projected Cash Flow For Post-Employment Benefits For Disabled Employees

Calendar Year	LG&E	KU	ServCo	International	WKE	Total
2011	735,313	807,351	391,059	[redacted]	[redacted]	[redacted]
2012	973,609	949,840	506,396	[redacted]	[redacted]	[redacted]
2013	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2014	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
2015	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Notes

1. Plan costs have been based on census data as of November 2010.
2. Future employees were projected to become disabled based on the assumptions used in the determination of the 2011 FAS 106 expense.
3. All other data, methods, plan provisions and assumptions (including 4.55% discount rate) are the same as those used in the determination of the December 31, 2010 FAS 112 liability, including a reduction in liability for Medicare-eligible disableds associated with the Medicare Modernization Act of 2003.

Reference Schedule

1.15

Consumer Price Index - All Urban Consumers
Original Data Value

Series Id: CUUR0000SA0
Not Seasonally Adjusted
Area: U.S. city average
Item: All items
Base Period: 1982-84=100
Years: 2002 to 2012

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181.0	181.3	181.3	180.9	179.9	178.9	180.9
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185.0	184.5	184.3	184.0	183.3	184.6
2004	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9	191.0	190.3	188.9	187.6	190.2
2005	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4	198.8	199.2	197.6	196.8	195.3	193.2	197.4
2006	198.3	198.7	199.8	201.5	202.5	202.9	203.5	203.9	202.9	201.8	201.5	201.8	201.6	200.6	202.6
2007	202.416	203.499	205.352	206.686	207.949	208.352	208.299	207.917	208.490	208.936	210.177	210.036	207.342	205.709	208.976
2008	211.080	211.693	213.528	214.823	216.632	218.815	219.964	219.086	218.783	216.573	212.425	210.228	215.303	214.429	216.177
2009	211.143	212.193	212.709	213.240	213.856	215.693	215.351	215.834	215.969	216.177	216.330	215.949	214.537	213.139	215.935
2010	216.687	216.741	217.631	218.009	218.178	217.965	218.011	218.312	218.439	218.711	218.803	219.179	218.056	217.535	218.576
2011	220.223	221.309	223.467	224.906	225.964	225.722	225.922	226.545	226.889	226.421	226.230	225.672	224.939	223.598	226.280
2012	226.665	227.663	229.392												

Total Company Storm costs -- Opex

Company	Project	2004	2005	2006	2007	2008	2009	2010	2011	Apr-Dec 2011	Jan-Mar 2012	Total trailing (12 mos ending Mar 31, 2012)
KUTL	111424 Norton-Storm Restoration	31,124.11	49,967.47	86,099.49	112,093.95	79,342.96	58.99	0.00	0.00	0.00	0.00	0.00
	111425 Pineville-Storm Restoration	89,818.45	117,014.89	152,959.39	86,198.65	250,794.70	1,578.98	0.00	0.00	0.00	0.00	0.00
	111426 London-Storm Restoration	37,444.21	8,609.70	15,395.37	15,290.11	55,333.96	22.39	0.00	0.00	0.00	0.00	0.00
	111427 Earlington-Storm Restoration	99,458.85	85,582.38	293,998.40	212,295.62	178,144.73	2,011.46	0.00	0.00	0.00	0.00	0.00
	111429 Danville-Storm Restoration	21,583.12	6,796.77	35,996.12	58,075.53	55,341.46	-296.25	0.00	0.00	0.00	0.00	0.00
	111430 Etown-Storm Restoration	20,373.98	12,693.56	4,025.30	32,605.83	6,761.15	0.90	0.00	0.00	0.00	0.00	0.00
	111431 Shelbyville-Storm Restoration	22,094.70	3,339.68	19,742.71	52,453.56	94,926.65	17.79	0.00	0.00	0.00	0.00	0.00
	111432 Maysville-Storm Restoration	81,198.77	46,275.50	42,976.95	78,044.63	108,672.81	0	0.00	0.00	0.00	0.00	0.00
	111433 Lexington-Storm Restoration	114,783.09	105,555.88	189,755.56	270,006.26	289,785.61	5,479.13	0.00	0.00	0.00	0.00	0.00
	111434 Richmond-Storm Restoration	33,829.76	14,376.31	21,889.60	28,424.80	26,330.13	0.00	0.00	0.00	0.00	0.00	0.00
	113493 Storm Damage III	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115715 KU ICE STORM 2/15/03	-466,245.76	0.00	756.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	116467 KU STORMS 7/23/03	0.00	0.00	203.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	116828 KU STORMS 8/22/03	0.00	0.00	894.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	116840 EARLINGTON STORM 8/27/03	102.45	0.00	447.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117216 KU STORMS - 1/25/04	93,394.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117548 KU Storm 5/19/04	91,932.10	6,172.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117628 KU/ODP STORMS 5/26-27/04	1,135,000.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117639 KU/ODP Storms 5/30/04	768,826.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117695 KU Storms 6/12/04	53,048.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118161 Storm 7/5/04	244,525.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118233 KU STORMS 7/13/04	809,126.62	-932.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118265 KU STORMS 7/22/04	141,080.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118408 KU - Storm 8/28 & 29/04	42,055.48	16.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118409 KU - STORMS 9/17/04	112,339.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119254 KU - Florida Storm 9/04	-3,388.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119287 KU - Alabama Storm	691.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119288 Florida Power & Light Storm	2,627.62	3,750.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119521 Florida Power & Light Storm II	1,708.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119786 KU Storms 11/24/04	39,206.59	377.66	7,002.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119827 KU Storms 12/07/04	109,998.55	6,432.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119866 KU ICE STORM 12-23-04	392,744.01	484,679.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119933 KU Storms 1/13/05	0.00	55,497.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120163 KU Storms 4/22/2005	0.00	77,783.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120164 KU Storms 5/19 &20/2005	0.00	116,999.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120188 KU Storms 6/14/2005	0.00	111,032.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120250 PSRT TRAINING	0.00	35,026.89	46,710.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120738 KU Storms - August 5, 2005	0.00	49,927.11	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120739 KU Storms - August 20, 2005	0.00	9,370.11	17.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120954 Storm Trailer Stocking KU	0.00	1,710.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121126 KU Storms - August 30, 2005	0.00	105,893.90	-903.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121205 STORM BONUS	0.00	88,000.00	3,748.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121323 KU Storms - November 6, 2005	0.00	138,542.67	4,572.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121329 KU Storms - November 15, 2005	0.00	737,377.02	952,842.99	137.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121361 KU Storms - November 28, 2005	0.00	61,508.94	5,189.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121511 KU Storms - March 9, 2006	0.00	0.00	272,532.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121512 KU Storms - April 2, 2006	0.00	0.00	331,412.41	2,501.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121513 KU Storms - May 25, 2006	0.00	0.00	140,066.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121674 KU Storms - May 31, 2006	0.00	0.00	130,959.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121675 KU Storms - June 10 & 11, 2006	0.00	0.00	103,627.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total Company Storm costs -- Opex

Company	Project	2004	2005	2006	2007	2008	2009	2010	2011	Apr-Dec 2011	Jan-Mar 2012	Total trailing (12 mos ending Mar 31, 2012)
	121687 KU Storms - June 23, 2006	0.00	0.00	205,083.85	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121706 KU Storms - July 21, 2006	0.00	0.00	231,686.75	-4,501.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122185 KU Storms-August 3, 2006	0.00	0.00	19,306.15	396.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122186 KU Storms - August 10, 2006	0.00	0.00	294,101.43	-1,004.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122204 KU Storms - Sept. 22, 2006	0.00	0.00	217,553.68	204.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122205 KU Storms - Dec. 1, 2006	0.00	0.00	282,798.23	2,614.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122635 KU Storms - April 3, 2007	0.00	0.00	76.62	496,260.62	0.22	0.00	0.00	0.00	0.00	0.00	0.00
	122786 KU Storms - July 4 & 5, 2007	0.00	0.00	0.00	112,252.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	123126 KU STORMS July 17, 2007	0.00	0.00	0.00	62,634.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	123127 KU storms July 19, 2007	0.00	0.00	0.00	101,978.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	123174 KU Storms - August 16, 2007	0.00	0.00	0.00	193,317.40	24.46	0.00	0.00	0.00	0.00	0.00	0.00
	123175 KU Storms - Oct 18 & 19, 2007	0.00	0.00	0.00	119,964.67	2,775.06	0.00	0.00	0.00	0.00	0.00	0.00
	123324 KU Storms - January 29, 2008	0.00	0.00	0.00	3,026.85	390,762.73	-245.86	0.00	0.00	0.00	0.00	0.00
	123757 KU Storm - Feb 5 & 6, 2008	0.00	0.00	0.00	0.00	1,946,556.88	0.00	0.00	0.00	0.00	0.00	0.00
	123772 KU Storms - Feb 11, 2008	0.00	0.00	0.00	0.00	1,458,430.47	-10.42	0.00	0.00	0.00	0.00	0.00
	123773 KU Storms Feb. 21-22, 2008	0.00	0.00	0.00	0.00	151,983.54	1,081.39	0.00	0.00	0.00	0.00	0.00
	123813 KU/ODP Storm - March 4, 2008	0.00	0.00	0.00	0.00	139,623.36	0.00	0.00	0.00	0.00	0.00	0.00
	123814 KU Storms - May 11, 2008	0.00	0.00	0.00	0.00	231,286.31	0.00	0.00	0.00	0.00	0.00	0.00
	123815 KU Storms - June 3, 2008	0.00	0.00	0.00	0.00	188,858.35	0.00	0.00	0.00	0.00	0.00	0.00
	124599 KU Storms - June 9 - 10, 2008	0.00	0.00	0.00	0.00	279,744.68	0.00	0.00	0.00	0.00	0.00	0.00
	124600 KU - WINDSTORM 9/14/08	0.00	0.00	0.00	0.00	1,016,319.00	0.00	0.00	0.00	0.00	0.00	0.00
	KMS013010 KU Major Storm - 01/30/10	0.00	0.00	0.00	0.00	0.00	0.00	471.60	0.00	0.00	0.00	0.00
	KMS062110 062110 KU Major Storm	0.00	0.00	0.00	0.00	0.00	0.00	205,902.35	0.00	0.00	0.00	0.00
	KMS080510 KU Major Storm 08-05-2010	0.00	0.00	0.00	0.00	0.00	0.00	267,304.87	1,063.66	1,061.67	0.00	1,061.67
	STRM11560 KU Minor Storm Earlington	0.00	0.00	0.00	0.00	0.00	0.00	151,715.56	271,477.51	243,576.33	30,749.32	274,325.65
	STRM12160 KU Minor Storms Danville	0.00	0.00	0.00	0.00	0.00	0.00	97,866.51	128,966.99	122,055.93	8,913.47	130,969.40
	STRM12360 KU Minor Storms Richmond	0.00	0.00	0.00	0.00	0.00	0.00	89,396.94	90,459.00	82,823.63	6,441.22	89,264.85
	STRM12460 KU Minor Storms Elizabethtown	0.00	0.00	0.00	0.00	0.00	0.00	24,761.83	73,149.18	64,655.92	8,795.85	73,451.77
	STRM12560 KU Minor Storms Shelbyville	0.00	0.00	0.00	0.00	0.00	0.00	146,687.10	134,745.90	110,312.60	10,180.60	120,493.20
	STRM13150 KU Minor Storms Lexington	0.00	0.00	0.00	0.00	0.00	0.00	349,708.27	649,530.72	585,444.95	70,102.88	655,547.83
	STRM13660 KU Minor Storm Maysville	0.00	0.00	0.00	0.00	0.00	0.00	227,419.14	197,886.25	168,332.83	38,058.06	206,390.89
	STRM14160 KU Minor Storms Pineville	0.00	0.00	0.00	0.00	0.00	0.00	147,647.33	354,517.70	302,553.44	26,699.39	329,252.83
	STRM14260 KU Minor Storms London	0.00	0.00	0.00	0.00	0.00	0.00	57,370.35	176,549.28	165,856.28	0.00	165,856.28
	STRM17660 KU Minor Storms Norton	0.00	0.00	0.00	0.00	0.00	0.00	81,781.86	269,048.83	251,584.20	11,989.03	263,573.23
	STRMDANOC Minor Storm Event Danville	0.00	0.00	0.00	0.00	0.00	51,855.45	0.00	0.00	0.00	0.00	0.00
	STRMEAROC Minor Storm Event Earlington	0.00	0.00	0.00	0.00	0.00	145,681.23	18.86	0.00	0.00	0.00	0.00
	STRMELIOC Minor Storm Event Elizbtwn	0.00	0.00	0.00	0.00	0.00	29,639.57	1,091.91	0.00	0.00	0.00	0.00
	STRMKU KU Major Storm Event	0.00	0.00	0.00	0.00	0.00	4,567,625.20	776,262.28	1,010.48	0.00	0.00	0.00
	STRMLEXOC Minor Storm Event Lexington	0.00	0.00	0.00	0.00	0.00	68,214.36	402.97	0.00	0.00	0.00	0.00
	STRMLONOC Minor Storm Event London	0.00	0.00	0.00	0.00	0.00	56,464.60	722.11	0.00	0.00	0.00	0.00
	STRMMAYOC Minor Storm Event Maysville	0.00	0.00	0.00	0.00	0.00	50,499.22	0.00	0.00	0.00	0.00	0.00
	STRMNOROC Minor Storm Event Norton	0.00	0.00	0.00	0.00	0.00	36,160.82	12.18	0.00	0.00	0.00	0.00
	STRMPINOC Minor Storm Event Pineville	0.00	0.00	0.00	0.00	0.00	139,365.19	0.00	0.00	0.00	0.00	0.00
	STRMRICOC Minor Storm Event Richmond	0.00	0.00	0.00	0.00	0.00	33,611.19	53.35	0.00	0.00	0.00	0.00
	STRMSHEOC Minor Storm Event Shelbyville	0.00	0.00	0.00	0.00	0.00	36,433.14	0.00	0.00	0.00	0.00	0.00
	STRM13085 STORM 013085	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	KMS040411 KU MAJOR STORM 040411	0.00	0.00	0.00	0.00	0.00	0.00	0.00	287,921.01	287,921.01	0.00	287,921.01
	KMS042011 KU MAJOR STORM 042011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49,905.72	49,905.72	0.00	49,905.72
	KMS042211 KU MAJOR STORM 042211	0.00	0.00	0.00	0.00	0.00	0.00	0.00	712,794.17	712,794.17	0.00	712,794.17
	KMS052511 KU MAJOR STORM 052511	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54,266.36	54,266.36	0.00	54,266.36

Total Company Storm costs -- Opex

Company	Project	2004	2005	2006	2007	2008	2009	2010	2011	Apr-Dec 2011	Jan-Mar 2012	Total trailing (12 mos ending Mar 31, 2012)
	KMS062110 062110 KU Major Storm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,222.91	10,222.04	0.00	10,222.04
	KMS081311 KU MAJOR STORM 081311	0.00	0.00	0.00	0.00	0.00	0.00	0.00	534,887.63	534,887.63	0.00	534,887.63
	KMS021912 KU MAJOR STORM 021912	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	263,665.58	263,665.58
	KMS022912 KU MAJOR STORM 02292012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	161,538.49	161,538.49
	KMS030212 KU MAJOR STORM 030212	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	608,817.72	608,817.72
	TOTAL KU	4,120,482.25	2,539,379.20	4,113,533.55	2,035,290.97	6,951,799.22	5,225,248.47	2,626,597.37	3,998,403.30	3,748,254.71	1,245,951.61	4,994,206.32

Total Company Storm costs -- Opex

Company	Project	2004	2005	2006	2007	2008	2009	2010	2011	Apr-Dec 2011	Jan-Mar 2012	Total trailing (12 mos ending Mar 31, 2012)
LUTL	108162 MOCK STORM 4-5-00	0.00	0.00	0.00	297.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	113458 Capital/Indirect Storm II	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	114689 STORM 07-29-02	-52.12	0.00	-1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115208 STORM 09-20-02	-109.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115255 STORM 10-04-02	-107.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115667 STORM 01-28-03	0.00	13,431.43	5,572.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115679 STORM 02-04-2003	0.00	4,650.55	1,808.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115716 STORM 02-15-03	0.00	31,547.92	8,704.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115877 STORM 05-01-03	0.00	11,022.67	3,036.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	116343 STORM 07-21-03	0.00	1,802.83	1,730.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	116678 STORM 08-02-03	713.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117042 STORM 11-12-03	755.85	6,998.17	5,080.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117215 STORM 01-25-04	85,405.25	4,151.95	967.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117312 STORM 03-05-04	53,345.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117313 STORM 03-07-04	42,552.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117547 STORM 05-19-04	51,369.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117621 STORM 05-25-04	187,557.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117634 STORM 05-27-04	871,207.39	2,353.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117636 STORM 05-31-04	3,004,748.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	117691 STORM 06-12-04	23,621.86	1,710.76	977.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118151 Storm July 5, 2004	428,681.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118205 STORM 07-09-04	173,117.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118234 Storm 7/13/04	8,341,872.02	56,207.99	47.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118264 STORM 07-22-04	150,581.40	12,541.63	5,018.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	118280 STORM 7-30-04	217,263.51	29,288.40	9,127.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119008 Florida Power & Light	192.11	0.00	151.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119010 Progress Energy	1,252.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119284 GULF POWER ASSISTANCE	1,082.17	0.00	37.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119519 Progress Energy - Jeanne	2,205.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119598 STORM 10-12-04	17,745.56	8,602.35	2,817.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119632 WIND STORM 10-16-04	14,071.14	2,073.05	666.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119690 Wind Storm 10/30/04	53,265.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119745 May_July Storm Settlements	4,583.57	2,546.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119785 STORM 11-24-04	34,585.95	443.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119824 STORM 12-7-04	56,064.45	27,599.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119867 Storm 12-23-04	49,018.64	130,243.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	119921 01-13-05 STORM	0.00	103,612.26	0.00	33,577.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120187 Storm 04-22-05	0.00	184,303.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120245 Storm May 13, 2005	0.00	11,238.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120251 PSRT TRAINING LOU	0.00	2,419.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120260 Storm 05-19-05	0.00	158,309.89	0.00	119,436.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120327 Storm 06-08-05	0.00	45,720.65	6,731.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120700 Storm 07-01-05	0.00	58,746.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120844 Storm 07/22/05	0.00	174,337.92	65,529.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	120935 Storm 08-05-05	0.00	50,578.92	7,181.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121073 Storm 08-13-05	0.00	68,646.96	-3,166.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121099 Storm 08-20-05	0.00	48,967.29	2,354.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121119 Storm 08-28-05	0.00	184,758.78	-1,690.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121124 Storm 08-30-05	0.00	286,574.68	4,172.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total Company Storm costs -- Opex

Company	Project	2004	2005	2006	2007	2008	2009	2010	2011	Apr-Dec 2011	Jan-Mar 2012	Total trailing (12 mos ending Mar 31, 2012)
	121131 LGE - Storm Bonus	0.00	33,855.06	4,804.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121321 Storm 11-06-05	0.00	49,042.59	6,026.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121328 Storm 11-15-05	0.00	116,635.82	9,485.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121360 Storm 11/28/2005	0.00	57,857.11	18,941.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121400 Storm 01-02-06	0.00	0.00	87,599.82	-232.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121486 Storm 02-16-06	0.00	0.00	29,953.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121510 Storm 03-09-06	0.00	0.00	506,907.03	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121539 Storm 04-02-2006	0.00	0.00	1,915,754.96	4.07	570.64	0.00	0.00	0.00	0.00	0.00	0.00
	121547 Storm 04-07-06	0.00	0.00	63,287.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121552 Storm 04-16-06	0.00	0.00	34,030.08	216.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121556 Storm 04-19-06	0.00	0.00	80,159.90	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121673 Storm 05-25-06	0.00	0.00	1,055,973.82	-9,172.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121688 Storm 06-01-06	0.00	0.00	50,198.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121890 Storm 06-19-06	0.00	0.00	146,162.57	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121969 Storm 06-29-06	0.00	0.00	77,011.34	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	121993 Storm 07-04-06	0.00	0.00	91,016.05	-260.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122120 Storm 07-14-06	0.00	0.00	141,910.40	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122184 Storm 07-21-06	0.00	0.00	227,236.83	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122203 Storm 08-10-06	0.00	0.00	233,524.52	0.26	63,679.12	0.00	0.00	0.00	0.00	0.00	0.00
	122226 Storm 08-20-06	0.00	0.00	159,393.50	-78.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122431 Storm 09-22-06	0.00	0.00	346,888.35	-1,096.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122622 Storm 12-01-06	0.00	0.00	196,461.22	37,430.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122785 Storm 04-03-07	0.00	0.00	0.00	212,130.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122793 Storm 04-11-07	0.00	0.00	0.00	74,102.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122846 Storm 05-16-07	0.00	0.00	0.00	118,319.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	122866 Storm 06-05-07	0.00	0.00	0.00	57,090.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	123129 Storm 07-04-2007	0.00	0.00	0.00	63,791.71	25,315.54	0.00	0.00	0.00	0.00	0.00	0.00
	123148 Storm 07-17-07	0.00	0.00	0.00	45,362.99	9,775.82	0.00	0.00	0.00	0.00	0.00	0.00
	123172 Storm 07-19-07	0.00	0.00	0.00	326,509.23	-9,542.60	0.00	0.00	0.00	0.00	0.00	0.00
	123323 Storm 08-16-07	0.00	0.00	0.00	596,559.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	123487 Storm 09-27-07	0.00	0.00	0.00	10,919.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	123585 Storm 10-18-07	0.00	0.00	0.00	198,023.61	38,813.80	0.00	0.00	0.00	0.00	0.00	0.00
	123708 Wind Storm 12-22-07	0.00	0.00	0.00	32,909.38	3,480.52	31,866.16	0.00	0.00	0.00	0.00	0.00
	123756 Storm 01-29-08	0.00	0.00	0.00	0.00	1,845,223.12	86.04	0.00	0.00	0.00	0.00	0.00
	123765 Storm 02-05-08	0.00	0.00	0.00	0.00	973,893.28	40.42	0.00	0.00	0.00	0.00	0.00
	123775 Storm 02-12-08	0.00	0.00	0.00	0.00	383,311.83	-8,860.21	0.00	0.00	0.00	0.00	0.00
	123783 Storm 02-17-08	0.00	0.00	0.00	0.00	85,285.82	0.00	0.00	0.00	0.00	0.00	0.00
	123793 Storm 02-21-08	0.00	0.00	0.00	0.00	238,315.10	16,714.65	0.00	0.00	0.00	0.00	0.00
	124310 Storm 05-11-08	0.00	0.00	0.00	0.00	171,618.59	32,598.79	0.00	0.00	0.00	0.00	0.00
	124634 Storm 06-19-08	0.00	0.00	0.00	0.00	93,696.46	22,341.48	0.00	0.00	0.00	0.00	0.00
	124641 Storm 06-26-08	0.00	0.00	0.00	0.00	374,577.36	2.55	0.00	0.00	0.00	0.00	0.00
	124744 Storm 07-08-08	0.00	0.00	0.00	0.00	180,622.86	-4,973.99	0.00	0.00	0.00	0.00	0.00
	125722 Storm 09-14-08	0.00	0.00	0.00	0.00	1,171,914.00	0.00	0.00	0.00	0.00	0.00	0.00
	STRMLGE LGE Major Storm Event	0.00	0.00	0.00	0.00	0.00	4,868,538.07	-15,397.23	52.13	50.30	0.00	50.30
	STRMLOUOC Minor Storm Event Louisville	0.00	0.00	0.00	0.00	0.00	432,197.96	7,059.31	1,452.49	1,275.47	82.10	1,357.57
	STRM03230 LGE Minor Storm Event	0.00	0.00	0.00	0.00	0.00	0.00	1,543,930.88	1,510,792.65	1,111,293.43	329,157.37	1,440,450.80
	STRM323 STORMS 003230	0.00	0.00	116,389.52	256,389.68	456,771.96	14,522.87	0.00	0.00	0.00	0.00	0.00
	LMS040911 LGE MAJOR STORM 040911	0.00	0.00	0.00	0.00	0.00	0.00	0.00	233,581.00	233,581.00	0.05	233,581.05
	LMS042011 LGE MAJOR STORM 042011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	505,380.55	505,380.55	0.66	505,381.21
	LMS042211 LGE MAJOR STORM 042211	0.00	0.00	0.00	0.00	0.00	0.00	0.00	867,100.88	867,100.88	4.87	867,105.75

Total Company Storm costs -- Opex

Company	Project	2004	2005	2006	2007	2008	2009	2010	2011	Apr-Dec 2011	Jan-Mar 2012	Total trailing (12 mos ending Mar 31, 2012)
	LMS052311 LGE MAJOR STORM 052311	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,935,487.58	1,935,487.58	1.56	1,935,489.14
	LMS061911 LGE MAJOR STORM 061911	0.00	0.00	0.00	0.00	0.00	0.00	0.00	861,310.29	861,310.29	0.80	861,311.09
	LMS071911 LGE MAJOR STORM 071911	0.00	0.00	0.00	0.00	0.00	0.00	0.00	516,536.71	516,536.71	33,174.82	549,711.53
	LMS081311 LG&E MAJOR STORM 081311	0.00	0.00	0.00	0.00	0.00	0.00	0.00	382,595.38	382,595.35	-1,228.79	381,366.56
	LMS011712 LGE MAJOR STORM 011712	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	666,440.72	666,440.72
	LMS030212 LG&E MAJOR STORM 030212	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	243,345.38	243,345.38
	TOTAL LG&E	13,866,592.47	1,982,820.42	5,725,973.78	2,172,237.44	6,107,323.22	5,405,074.79	1,535,592.96	6,814,289.66	6,414,611.56	1,270,979.54	7,685,591.10
												0.00
Report Total	Total KU and LG&E	**17,987,074.72**	**4,522,199.62**	**9,839,507.33**	**4,207,528.41**	**13,059,122.44**	**10,630,323.26**	**4,162,190.33**	**10,812,692.96**	**10,162,866.27**	**2,516,931.15**	**12,679,797.42**

NOTE 1>	Operations costs reclassed to regulatory assets for Sept. 2008 IKE Windstorm	**25,719,165**	**16,684**
NOTE 2>	Operations costs reclassed to regulatory assets for Jan/Feb. 2009 Winter Storms	**0**	**100,271,229**
NOTE 3>	Operations costs reclassed to regulatory assets for Dec 2009 Snowstorm		**9,397,372**

Reference Schedule

1.16

KU and LG&E FERC 913, 925, and 930.1 GL Totals GL Start Date : '01-APR-11' , GL End Date : '31-MAR-12'

			Period Net		
			Electric	Gas	Sum
Company	FERC				
0100	913		19,133.99	6,347.45	**25,481.44**
	925		2,448,359.89	621,606.66	**3,069,966.55**
	930.1		520,853.64	205,863.59	**726,717.23**
LG&E	**Sum**		**2,988,347.52**	**833,817.70**	**3,822,165.22**
0110	913		23,966.44	NULL	**23,966.44**
	925		3,560,504.20	NULL	**3,560,504.20**
	930.1		827,233.97	NULL	**827,233.97**
KU	**Sum**		**4,411,704.61**		**4,411,704.61**

GL Period Account Activity Detail Period Name : TWELVE MONTHS ENDED MAR-2012
KENTUCKY UTILITIES COMPANY

Period:<All>	Company:0110

		Net Amount							
		C. Payables	D. Labor	E1. Burden Charges	E2. Burden Clearings	G. Accounting Entries	H. Mass Allocations	Other	Account Totals
Account	**Account Description**								
925001	**PUBLIC LIABILITY**	165,966.88				1,958,688.32		70.00	**2,124,725.20**
925002	**WORKERS COMP EXPENSE - BURDENS**			327,175.42	126,994.25	385,705.56	-31,066.48		**808,808.75**
925003	**AUTO LIABILITY**	97,680.49				83,508.55			**181,189.04**
925004	**SAFETY AND INDUSTRIAL HEALTH**	5,590.21	58,318.45	15,770.07		81.20		6,930.48	**86,690.41**
925100	**OTHER INJURIES AND DAMAGES**	389,147.00				-45,000.00			**344,147.00**
925902	**WORKERS COMP EXPENSE - BURDENS INDIRECT**						11,475.15		**11,475.15**
925904	**SAFETY & INDUSTRIAL HEALTH - INDIRECT**	3,468.65							**3,468.65**
	TOTALS	661,853.23	58,318.45	342,945.49	126,994.25	2,382,983.63	-19,591.33	7,000.48	3,560,504.20

Consumer Price Index - All Urban Consumers
Original Data Value

Series Id: CUUR0000SA0
Not Seasonally Adjusted
Area: U.S. city average
Item: All items
Base Period: 1982-84=100
Years: 2002 to 2012

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181.0	181.3	181.3	180.9	179.9	178.9	180.9
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185.0	184.5	184.3	184.0	183.3	184.6
2004	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9	191.0	190.3	188.9	187.6	190.2
2005	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4	198.8	199.2	197.6	196.8	195.3	193.2	197.4
2006	198.3	198.7	199.8	201.5	202.5	202.9	203.5	203.9	202.9	201.8	201.5	201.8	201.6	200.6	202.6
2007	202.416	203.499	205.352	206.686	207.949	208.352	208.299	207.917	208.490	208.936	210.177	210.036	207.342	205.709	208.976
2008	211.080	211.693	213.528	214.823	216.632	218.815	219.964	219.086	218.783	216.573	212.425	210.228	215.303	214.429	216.177
2009	211.143	212.193	212.709	213.240	213.856	215.693	215.351	215.834	215.969	216.177	216.330	215.949	214.537	213.139	215.935
2010	216.687	216.741	217.631	218.009	218.178	217.965	218.011	218.312	218.439	218.711	218.803	219.179	218.056	217.535	218.576
2011	220.223	221.309	223.467	224.906	225.964	225.722	225.922	226.545	226.889	226.421	226.230	225.672	224.939	223.598	226.280
2012	226.665	227.663	229.392												

Reference Schedule

1.17

Account Balance Month/s : 'APR-2011, MAY-2011, JUN-2011, JUL-2011, AUG-2011, SEP-2011, OCT-2011, NOV-2011, DEC-2011, JAN-2012, FEB-2012, MAR-2012' , Account : '913000, 913001, 913002, 913003, 913004, 913005, 913006, 913008, 913009, 913011, 913012'

Company:0110	KENTUCKY UTILITIES

			Period Net SUM
		E/G/C	Electric
Account	Account		
913006	CLOSED 04/10 - MEDIA RELATIONS		0
913012	OTH ADVER-SALES		23966
Sum			23966

Account Balance Month/s : 'APR-2011, MAY-2011, JUN-2011, JUL-2011, AUG-2011, SEP-2011, OCT-2011, NOV-2011, DEC-2011, JAN-2012, FEB-2012, MAR-2012' , Account : '930100, 930101, 930191'

Company:0110	KENTUCKY UTILITIES

			Period Net SUM
		E/G/C	Electric
Account	Account		
930101	GEN PUBLIC INFO EXP		793,146.67
930191	GEN PUBLIC INFO EXP - INDIRECT		34,087.30
Sum			827,233.97

Reference Schedule

1.19

CREDIT SLIP

(Credit Account Number)

Specify Company:

x LG&E and KU Services Company (Servco)
___ LG&E and KU Capital Corp.
___ Kentucky Utilities Company
___ Louisville Gas & Electric Company (Utility)

Date: 9/20/2011	Payment Received From:	Marsh USA Inc.	
Employee Name (printed):	Daniel K. Arbough	Employee#	E006322
Employee Signature:			

BUSINESS PURPOSE FOR PAYMENT	ACCOUNTING DISTRIBUTION (CREDITED) * PROJECT	TASK	EXP TYPE	EXP ORG	AMOUNT
Premium Check	118418	PREPDINS	0674	026350	63,820.50
for TC2	118419	PREPDINS	0674	026350	14,975.50
				TOTAL	$ 78,796.00

* For LG&E and KU (utility) employees only, Account number is NOT required for an unused cash advance

Revised 2010

Marsh USA Inc. Two Logan Square Philadelphia, PA 19103

Disb. No.	*	Payee No.	Amount	Description
264190	A	003113	U'S DOLLARS *****78,796.00	R/P FR I#314829

*C = Client, E = Employee, V = Vendor, P = Insurance Payee

No. 337393

LG&E and KU Energy LLC
ATTN: John Diacogiannis
Two North Ninth Street
GENTW14
Allentown
PA 18101-1179

MARSH
An MMC Company

LG&E and KU Energy LLC
John Diacogiannis
Two North Ninth Street
GENTW14
Allentown PA 18101-1179

Marsh USA Inc.
Two Logan Square
Philadelphia
PA 19103

CHECK DATE : 8/31/11
PAGE NUMBER : 1

CHECK NUMBER : 337393
DISBURSEMENT NUMBER : 264190

ALTERNATE BILLING NUMBER : 003113

215-246-1000

ACCOUNTS RECEIVABLE REMITTANCE ADVICE

INVOICE NUMBER	INVOICE DATE	F/P STAT	APPLIED AMOUNT	NAMED INSURED	DESCRIPTION
CLIENT NUMBER : S27324 PPL Corporation					
314829	8/12/11	C	78,796.00	PPL CORP	Property/All Risk
TOTAL IN UNITED STATES DOLLARS			78,796.00		

Arbough, Dan

From: Harold Mattingly [hmattingly@rmsc.com]
Sent: Tuesday, September 20, 2011 12:11 PM
To: Arbough, Dan; Rausch, Jeff (RMSC)
Subject: RE: Return premium check

Dan....the codes we have for both the 11/1/10 renewal and the 4/1/11 renewal w/ PPL is:

Project	Task	Exp Type	Exp Org	
118418	PREPDINS	0674	026350	~~51%~~ 81%
118419	PREPDINS	0674	026350	~~49%~~ 19%

The overall values review I did a couple months ago showed values of: LG&E 49% and KU 51%

The TC2 ownership is: KU 81% and LGE 19%

Since the refund apparently is for TC2 engineering recommendations completions, did not know if you wanted to credit back based on TC2s ownership.

I am still awaiting an answer from FM on how exactly they figured the refund.

Harold

Harold Mattingly | Risk Management Services Co. | Executive Director - Claims | P 502 708 3116 | F 502 326 5909 | 2211 River Road, Louisville, KY 40206 / *hmattingly@rmsc.com* / www.RMSC.com

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www.nationalclaimspro.com

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From: Arbough, Dan [mailto:Dan.Arbough@lge-ku.com]
Sent: Tuesday, September 20, 2011 10:02 AM
To: Harold Mattingly; Jeff Rausch
Subject: RE: Return premium check

I now have the check and would like to deposit it even if it is not an amount we agree with. Can you provide me with the coding?

From: Harold Mattingly [mailto:hmattingly@rmsc.com]
Sent: Monday, September 19, 2011 3:31 PM
To: Arbough, Dan; Rausch, Jeff (RMSC)
Subject: RE: Return premium check

Dan...I am confirming w/ FM on exactly how this was calculated and will let you know once we can confirm. I am unable to match it up w/ any calculations I have.

Harold Mattingly | *Risk Management Services Co.* | Executive Director - Claims | P 502 708 3116 | F 502 326 5909 | 2211 River Road, Louisville, KY 40206 / *hmattingly@rmsc.com* / www.RMSC.com

an NCP Member Company
www.nationalclaimspro.com

From: Arbough, Dan [mailto:Dan.Arbough@lge-ku.com]
Sent: Sunday, September 18, 2011 8:11 PM
To: Jeff Rausch; Harold Mattingly
Subject: FW: Return premium check

Please confirm that you agree with this amount. Also, please provide me with the distribution for the check.

Dan

From: Diacogiannis, John N [mailto:jndiacogiannis@pplweb.com]
Sent: Sunday, September 18, 2011 2:36 PM
To: Arbough, Dan
Cc: Novatnack, Terry; Rausch, Jeff (RMSC)
Subject: Return premium check

Dan,

By USPS I am mailing you a check that we received in the amount of $78,798.00 representing return premium for LG&E and KU Energy LLC. I understand that this pertains to credits for completing the recommendations at the TC2 project. This credit was developed by the FM Cleveland office. I have confirmed with the current underwriter, Dave O'Donnell, that the computations for current premium already included the completed work.

Thanks, John

John N. Diacogiannis, *CPCU*
Corporate Risk & Insurance Manager
PPL Services Corporation
610-774-4961
610-248-4463 (mobile)

Reference Schedule

1.19

LGE and KU Services LLC

J200-0020-1111

Balance Type	Actual
Database	DBORA91.OFMSPROD
Set of Books	LGE ENERGY LLC

Category	*List - Text	Adjustment
Source	*List - Text	Spreadsheet
Currency	*List - Text	USD
Accounting Date	*List - Date	30-Nov-2011
Group ID	Number	10965
Batch Name	Text	KAA
Journal Name	Text	J200-0020-1111
Journal Description	Text	Insurance Premium Return From PPL
Reverse Journal	List - Text	
Reversal Period	List - Text	

Upl	CO *List - Text	Prod	Org	Exp Org	Account	Inter Co	Exp Type	Location	Debit *Number	Credit *Number	Line Description Text	Am mb	Line DFF List - Text
	0020	703	000020	000020	234052	0000	0699	0000	55,051.44		Insurance Premium Return From PPL		
	0100	703	008990	026350	165001	0000	0674	0000		10,459.77	Insurance Premium Return From PPL		Yes.118418.PREPDINS
	0110	303	018990	026350	165001	0000	0674	0000		44,591.67	Insurance Premium Return From PPL		Yes.118419.PREPDINS
Totals:									55,051.44	55,051.44		##	

Description: Insurance Premium Refund

Prepared By: KAmmerer 12/2/11

Upload/concurrent ID: 25384280

Approved By: N. Strange 12/2/11

Posted By: N. Strange 12/2/11

Posted/Concurrent ID: 25388093

Amlung, Kim

From: Arbough, Dan
Sent: Thursday, December 01, 2011 9:14 AM
To: 'hmattingly@rmsc.com'; Boyd, Delicia; Amlung, Kim
Cc: Rausch, Jeff (RMSC); 'sphelps@rmsc.com'
Subject: Re: LKE Return premium

We should use the TC2 allocations

From: Harold Mattingly [mailto:hmattingly@rmsc.com]
Sent: Thursday, December 01, 2011 09:00 AM
To: Arbough, Dan; Boyd, Delicia; Amlung, Kim
Cc: Rausch, Jeff (RMSC); Stephanie Phelps <sphelps@rmsc.com>
Subject: FW: LKE Return premium

Dan....the codes we have for the 4/1/11 renewal w/ PPL is:

Project	Task	Exp Type	Exp Org	
118418	PREPDINS	0674	026350	51%
118419	PREPDINS	0674	026350	49%

The overall values review I did a couple months ago showed values of: LG&E 49% and KU 51%

The TC2 ownership is: KU 81% and LGE 19%

Since the refund is for TC2 engineering recommendations completions, did not know if you wanted to credit back based on TC2s ownership. The return premium breakdown for the attached is: AEGIS: $29,548.00 + EIM: $22,982.00 = 52,530 Credit PLUS SL TAXES (2,521.44) Total: $55,051.44

Let me know of any questions.

Harold

Harold Mattingly | *Risk Management Services Co.* | Executive Director - Claims | P 502 708 3116 | F 502 326 5909 | 2211 River Road, Louisville, KY 40206 / *hmattingly@rmsc.com* / www.RMSC.com

NCP

an NCP Member Company
www.nationalclaimspro.com

From: Diacogiannis, John N [mailto:jndiacogiannis@pplweb.com]
Sent: Tuesday, November 29, 2011 4:44 PM
To: Cole, Scott A
Cc: Arbough, Daniel K; Jeff Rausch; Harold Mattingly; Frey, Stacy A
Subject: LKE Return premium

Scott,

Attached is a copy of the $55,051.44 return premium check that we have just sent to cash receipts. Please see that LKE receives the funds.

Thanks, John

John N. Diacogiannis, CPCU
Corporate Risk & Insurance Manager
PPL Services Corporation
610-774-4961
610-248-4463 (mobile)

From: Seemuller, Amy P [mailto:Amy.P.Seemuller@marsh.com]
Sent: Monday, November 28, 2011 3:32 PM
To: Diacogiannis, John N
Cc: Sweeney, Robert G
Subject: RE: Return premium

Hi, John!

It is AEGIS' and EIM's portion of the Kentucky credit - Trimble 2 Risk Improvement. FM was sent separately, previously.

To summarize:
FM: $78,796.00 Credit sent to PPL on or around 8/30/2011 (asked accting to provide check# and exact date; can forward once I receive)
AEGIS: $29,548.00 + EIM: $22,982.00 = 52,530 Credit PLUS SL TAXES (2,521.44 see below) Total sent to PPL on 11/21/2011: $55,051.44
Total Credit Premium (All 3 Carriers): $131,326.00
Total Credit SL Tax: $2,521.44
Total Credit (All 3 Carriers) Inclusive of SL Taxes: $133,847.44

EIM CREDIT PREMIUM 310540-11GP	-$22,982.00
EIM SL TAXES 310540-11GP	-$689.46
EIM SL TAXES 310540-11GP	-$413.68
AEGIS CREDIT PREM L0117A1A11	-$29,548.00
AEGIS SL TAXES L0117A1A11	-$886.44
AEGIS SL TAXES L0117A1A11	-$531.86

Please let me know if any questions come up.

Thank you,

Amy

Amy Seemuller
Marsh USA, Inc.

Property Practice
Two Logan Square, 22nd Floor
Philadelphia, PA 19103
215-246-1441 phone
215-246-1399 fax
amy.p.seemuller@marsh.com

From: Diacogiannis, John N [mailto:jndiacogiannis@pplweb.com]
Sent: Monday, November 28, 2011 2:58 PM
To: Sweeney, Robert G
Cc: Seemuller, Amy P
Subject: Return premium

Bob,

Just got a check for $55,051.44 with no description. It's invoice # 316620 dated 10/17/11.

Can you tell me what this is for. It doesn't add up to the Kentucky return numbers.

Thanks, John

John N. Diacogiannis, CPCU
Corporate Risk & Insurance Manager
PPL Services Corporation
610-774-4961
610-248-4463 (mobile)

Amlung, Kim

From:	Cole, Scott A [SACole@pplweb.com]
Sent:	Tuesday, November 29, 2011 8:47 PM
To:	Strange, Vicki; Amlung, Kim; Callahan, Karen
Subject:	FW: LKE Return premium
Attachments:	2011 Kentucky return premium.pdf

Vicki and Karen,

Here's the insurance refund info, as discussed.

Scott

From: Diacogiannis, John N
Sent: Tuesday, November 29, 2011 4:43 PM
To: Cole, Scott A
Cc: Arbough, Daniel K; 'Jeff Rausch'; 'Harold Mattingly'; Frey, Stacy A
Subject: LKE Return premium

Scott,

Attached is a copy of the $55,051.44 return premium check that we have just sent to cash receipts. Please see that LKE receives the funds.

Thanks, John

John N. Diacogiannis, CPCU
Corporate Risk & Insurance Manager
PPL Services Corporation
610-774-4961
610-248-4463 (mobile)

From: Seemuller, Amy P [mailto:Amy.P.Seemuller@marsh.com]
Sent: Monday, November 28, 2011 3:32 PM
To: Diacogiannis, John N
Cc: Sweeney, Robert G
Subject: RE: Return premium

Hi, John!

It is AEGIS' and EIM's portion of the Kentucky credit - Trimble 2 Risk Improvement. FM was sent separately, previously.

To summarize:
FM: $78,796.00 Credit sent to PPL on or around 8/30/2011 (asked accting to provide check# and exact date; can forward once I receive)
AEGIS: $29,548.00 + EIM: $22,982.00 = 52,530 Credit PLUS SL TAXES (2,521.44 see below) Total sent to PPL on 11/21/2011: $55,051.44
Total Credit Premium (All 3 Carriers): $131,326.00
Total Credit SL Tax: $2,521.44
Total Credit (All 3 Carriers) inclusive of SL Taxes: $133,847.44

EIM CREDIT PREMIUM

310540-11GP
-$22,982.00
EIM SL TAXES 310540-11GP -$689.46
EIM SL TAXES 310540-11GP -$413.68
AEGIS CREDIT PREM L0117A1A11 -$29,548.00
AEGIS SL TAXES L0117A1A11 -$886.44
AEGIS SL TAXES L0117A1A11 -$531.86

Please let me know if any questions come up.

Thank you,

Amy

Amy Seemuller
Marsh USA, Inc.
Property Practice
Two Logan Square, 22nd Floor
Philadelphia, PA 19103
215-246-1441 phone
215-246-1399 fax
amy.p.seemuller@marsh.com

From: Diacogiannis, John N [mailto:jndiacogiannis@pplweb.com]
Sent: Monday, November 28, 2011 2:58 PM
To: Sweeney, Robert G
Cc: Seemuller, Amy P
Subject: Return premium

Bob,

Just got a check for $55,051.44 with no description. It's invoice # 316620 dated 10/17/11.

Can you tell me what this is for. It doesn't add up to the Kentucky return numbers.

Thanks, John

John N. Diacogiannis, CPCU
Corporate Risk & Insurance Manager
PPL Services Corporation
610-774-4961
610-248-4463 (mobile)

WARNING: DO NOT CASH UNLESS PINK PADLOCK SECURITY SYMBOL CHANGES TO WHITE WHEN TOUCHED

70-2328/0719

Marsh USA Inc.
Two Logan Square
Philadelphia, PA 19103

MARSH
An MMC Company

No. 338085

PREMIUM FUND TRUST ACCOUNT
Bank of America Commercial Disbursement Account Northbrook, IL

IN THE SUM OF U S DOLLARS 55,051 AND 44/100*********

Date: 11/22/11

Amount: US $*****55,051.44****

Pay to the order of:

PPL CORPORATION
Two North Ninth Street
GENTW14
Allentown
PA 18101-1179

Marsh USA Inc.

By: ______ Authorized Signature

By: MARSH Authorized Signature

⑈338085⑈ ⑆071923284⑆ 8765546154⑈

Marsh USA Inc. Two Logan Square Philadelphia, PA 19103

Disb. No.	*	Payee No.	Amount	Description
266016	C	S27324	U S DOLLARS *****55,051.44	CREDIT INVOICE 316620

No. 338085

*C = Client, E = Employee, V = Vendor, P = Insurance Payee

Terry Novatnack, CPCU, ARM
Manager, Corp. Risk & Insur.
PPL Corporation
Two North Ninth Street
GENTW14
Allentown PA 18101-1179

McRae, Callie [6:04 PM]:
I believe we are okay to post the entry related to prepaid insurance. Thank you!
Strange, Vicki [6:22 PM]:
Ok, thanks
Is the entry to be split between LGE and KU as Kim had it?
McRae, Callie [6:28 PM]:
Yes. Delicia verified that KU should be receiving a piece of the entry. Thank you again!
Strange, Vicki [6:28 PM]:
ok, thx

Reference Schedule

1.19

7/295
RWire

DISBURSEMENT REQUEST

(Corporate Policy & Procedures are on Intranet)

RECEIVED
APR 27 2011
ACCOUNTS PAYABLE

Specify Company:
____ Louisville Gas & Electric Company (Utility)
_X_ Servco

SEND CHECK TO: Please wire to the instructions below

DUE DATE: ~~26~~ 29-Apr-11

ACCOUNTING DISTRIBUTION						
CO. PRODUCT	RC	HC	ACCOUNT	EXP. TYPE	LOCATION	
PROJECT		TASK		EXP. TYPE	EXP. ORG	AMOUNT
118418	PREPDINS			0674	026350	$3,494,360.05
118419	PREPDINS			0674	026350	$3,357,326.32
					TOTAL.	$6,851,686.37

Form SO 71-A
Rev. 7/08

Supplier Name	Marsh USA Inc.
Address:	Wiring Instructions
	Marsh Inc. Philadelphia
	Bank of NY Mellon
	ABA# 043-000-261
	Account# 186-8914
	Invoice #311107 LG&E and KU Energy LLC
Business Purpose:	LG&E and KU Energy LLC Master Property
	Renewal 04/01/2011 - 04/01/2012
Prepared by signature: C.J. Rausch	Date: 4/21/2011
Certified by signature:	Date: 4/21/2011
Approved by signature:	Date: 4/21/2011
Approver title: Treasurer CFO	

MasterPropertyrenewal LGE-KU 4-1-11-12.xlsx

4/21/2011

MARSH

RECEIVED
APR 27 2011
ACCOUNTS PAYABLE

Marsh USA Inc.
Philadelphia, PA - 205
215-246-1000

Invoice No.
311107

ORIGINAL INVOICE Date: 4/18/11

John Diacogiannis
LG&E and KU Energy LLC
Two North Ninth Street
GENTW14
Allentown, PA 18101-1179

Effective Date	Expiration Date	Client No.
4/01/11	4/01/12	827324

Policyholder: PPL CORP

ORIGINAL Billing Effective Date: 4/01/11

Insurer	Policy No.	Type of Coverage / Item	Amount
ENERGY	310540-11GP	PROP/ALL RISK PREMIUM	966,644.00
		PROP/ALL RISK PREMIUM	57,999.00
		PROP/ALL RISK SURPLUS LN TAX	31,695.83
		PROP/ALL RISK FIRE MARSH TAX	19,017.50
		PROP/ALL RISK MUNICIPAL TAX	119.28
		PROP/ALL RISK MUNICIPAL TAX	3,355.31
		PROP/ALL RISK MUNICIPAL TAX	17,628.89
		PROP/ALL RISK MUNICIPAL TAX	15.06
		PROP/ALL RISK MUNICIPAL TAX	170.34
		PROP/ALL RISK MUNICIPAL TAX	346.85
		PROP/ALL RISK MUNICIPAL TAX	53.78
		PROP/ALL RISK MUNICIPAL TAX	1,103.48
		PROP/ALL RISK MUNICIPAL TAX	50.30
FACTORY MUTUAL	LR911	PROP/ALL RISK PREMIUM	3,314,207.00
		PROP/ALL RISK PREMIUM	308,590.00
		PROP/ALL RISK POLICY FEE	139,000.00
		PROP/ALL RISK PREMIUM	1,015,137.00
		PROP/ALL RISK PREMIUM TAX	133,125.00
		PROP/ALL RISK PREMIUM	573,820.00CR

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

MARSH

RECEIVED
APR 27 2011
ACCOUNTS PAYABLE

PAGE 2

Marsh USA Inc.
Philadelphia, PA - 205
215-246-1000

Invoice No.
311107

ORIGINAL INVOICE

Date: 4/18/11

John Diacogiannis

Effective Date	Expiration Date	Client No.
4/01/11	4/01/12	827324

Policyholder: PPL CORP

ORIGINAL Billing Effective Date: 4/01/11

Insurer	Policy No.	Type of Coverage / Item	Amount
AEGIS	L0117A1A11	PROP/ALL RISK PREMIUM	1,242,828.00
		PROP/ALL RISK SURPLUS LN TAX	40,821.57
		PROP/ALL RISK FIRE MARSH TAX	24,492.94
		PROP/ALL RISK MUNICIPAL TAX	153.62
		PROP/ALL RISK MUNICIPAL TAX	4,321.36
		PROP/ALL RISK MUNICIPAL TAX	22,704.53
		PROP/ALL RISK MUNICIPAL TAX	19.40
		PROP/ALL RISK MUNICIPAL TAX	219.38
		PROP/ALL RISK MUNICIPAL TAX	446.71
		PROP/ALL RISK MUNICIPAL TAX	69.27
		PROP/ALL RISK MUNICIPAL TAX	1,421.19
		PROP/ALL RISK MUNICIPAL TAX	64.78
		PROP/ALL RISK PREMIUM	79,685.00

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

MARSH

RECEIVED
APR 27 2011
ACCOUNTS PAYABLE

PAGE 3

Marsh USA Inc.
Philadelphia, PA - 205
215-246-1000

Invoice No.
311107

ORIGINAL INVOICE

Date: 4/18/11

John Diacogiannis

Effective Date	Expiration Date	Client No.
4/01/11	4/01/12	S27324

Policyholder: PPL CORP

ORIGINAL Billing Effective Date: 4/01/11

Insurer	Policy No.	Type of Coverage / Item	Amount
		REMIT IN: UNITED STATES DOLLARS	
	LG&E Premiums		
		TOTAL:	6,851,686.37

Please indicate Invoice # 311107
on your remittance to:

Marsh USA Inc.
P. O. Box 371237
Pittsburgh, PA 15251-7237

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

RECEIVED
APR 27 2011
ACCOUNTS PAYABLE

Proposal

PPL CORPORATION
EFF. APRIL 1, 2011

FM Global

FM Global

Proposal

Overview

Working in conjunction with PPL and Marsh, we remain committed to protecting your operating reliability with strong engineering support and a stable insurance program. Sensible loss prevention protects the deductible, keeping cash from being spent out of pocket. A stable insurance program commits meaningful capacity to PPL's property risks. This should be a very exciting year with the acquisition of LG&E Kentucky Utilities.

Client Service Plan

At FM Global, we are mindful that the strategies we pursue and decisions we make must ultimately be for the benefit of our mutual policyholders.

Our aim is always to mobilize our range of value added services in support of mutually agreed objectives.

Based upon our discussions to date, we have a client service plan in place however with the acquisition of LG&E Kentucky Utilities the plan now needs to be revised. We would like get together to review the plan and get your input and agreement.

The FM Global Difference

We are proud to have a relationship with PPL and Marsh. As you are aware, we are a different kind of company. We have put together our thoughts on some of the FM Global differences and more specifically why they might be important to you.

- FM Global has the ability to underwrite and engineer your risk on a 100% basis. This promotes pricing stability and capacity dedicated to the PPL account.
- FM Global engineering has given support to PPL and is seen as being a credible source for solutions.
- Membership Credits -- 5 times since 2001, totaling over USD1,700,000,000
    - PPL's Membership Credit for 2010 will be USD1,285,187. Bringing your total to USD4,155,442

We have included some additional information about FM Global as an organization in Appendix B, to answer common questions.

FM Global

Proposal

Insurance Proposal

First we would like to thank Terry Novatnack, John Diacogiannis, Stacey Frey, Rick Schartel, Matt Simmons and Paul Farr for the continued partnership with FM Global.

We would also like to thank the people at Marsh for their continued support on the PPL account.

Attached please find FM Global's property insurance renewal proposal. This proposal contemplates combining the PPL and LG&E, Kentucky Utilities program into one. If the programs are not combined this proposal will be revised. This proposal is being presented as a "draft" policy. Experience has shown that clients appreciate a clear articulation and understanding of their coverage, particularly relative to contemporary issues of risk management. This in part is how the FM Global Policy has become the contract of choice for many of the largest companies in the world.

Our pricing is based on the updated Property Damage values of USD28,183,590,907. PPL value is USD15,328,902,302 and LG&E, KU value is USD12,854,688,605.

One of the items that we have been concerned with on the PPL portion is the reported values at the Dams. Working with John Diacogiannis and Marsh, we have had desk appraisals done at all but 3 dams/hydros. You will see in our proposal that we are going to increase the limits at the Dams/hydros to provide higher limits, reflecting the appraisal values.

We have also discussed that there are value concerns at some of the LG&E, KU locations. As we agreed, we will wait until after the April 1, 2011 renewal to work with all parties to sort this issue out.

Please note the following highlights:

Premium

The proposed FM Global premium (net of taxes and fees) for the PPL portion is:

Layer 1 (USD180,000,000 p/o USD300,000,000)	USD4,452,404
Layer 2 (USD3,700,000,000 x/s of USD300,000,000)	USD1,093,420
Service Fee	USD200,000

Proposal

FM Global

Please note the premium above has not been adjusted for FM Global's Membership Credit of USD1,285,187
(20% of the premium of record for all PPL policies on 12/31/10) available to PPL upon renewal.)

The premiums above do not include Certified Terrorism charges.

Please note that we are required to provide a quote for Certified Terrorism in the US. This is optional coverage however the insured is required to sign and return the Policyholder Disclosure form indicating their decision.

- Certified Terrorism Coverage: *(See endorsement and disclosure form.)*
- Annual premium: USD 488,395
- Limits: Policy Limit
  If this coverage is not purchased the Terrorism limit will be USD5,000,000 in the aggregate for all policies issued to PPL Corporation.

The proposed FM Global premium (net of taxes and fees) for the LG&E, KU portion is:

Layer 1 (USD180,000,000 p/o USD300,000,000)	USD3,314,207
Layer 2 (USD3,700,000,000 x/s of USD300,000,000)	USD1,015,137
Service Fee	USD139,000

Please note the premium above has not been adjusted for FM Global's Membership Credit.
LG&E, KU received a Membership Credit of USD978,712 at their November 1,2010 renewal. As of April 1, 2011, USD404,892 of this has been earned. When their current policy is cancelled, the return premium will be reduced by the balance of the credit which is USD573,820.

You will receive a Membership Credit of USD573,820 for this renewal.
(Equivalent to the unearned portion of the original credit issued)

The premiums above do not include Certified Terrorism charges.

FM Global

Proposal

Please note that we are required to provide a quote for Certified Terrorism in the US. This is optional coverage however <u>the insured is required to sign and return the Policyholder Disclosure form</u> indicating their decision.

- Certified Terrorism Coverage: *(See endorsement and disclosure form.)*
- Annual premium: USD 308,590
- Limits: Policy Limit

  If this coverage <u>is not</u> purchased the Terrorism limit will be USD5,000,000 in the aggregate for all policies issued to PPL Corporation.

Changes to Terms and Conditions

There are many changes to the limits provided throughout the policy.
Please see attached specimen policy to view all of them.
Highlights include:
Policy deductible reduced to from USD5,000,000 to USD2,500,000
Policy limit increased from USD2,000,000,000 to USD4,000,000,000
Flood and Earth Movement limits increased USD400,000,000
Limits of Liability on dams and hydros are being increased per the schedule attached to the policy.

Conditions of Coverage

a. Premium is payable upon receipt of invoice paid directly to FM Global by PPL Corporation through Marsh, Inc.

b. FM Global will provide engineering services including jurisdictional inspections.

c. FM Global will conduct all loss investigations.

d. FM Global will issue Certificates of Insurance for our participation.

Program Structure

Policy 1 -- The United States of America

Proposal Expiration

Please note this proposal expires April 1, 2011.

PM Global

Proposal

Please review the attached and contact me with any questions that you might have. As we have discussed, we look forward to meeting with you and the people at PPL to review this proposal..

We look forward to hearing from you.

RECEIVED
APR 27 2011
ACCOUNTS PAYABLE

Sincerely,

Dave O'Donnell

Dave O'Donnell
Senior Account Manager

Reference Schedule

1.19

DISBURSEMENT REQUEST

(Corporate Policy & Procedures are on Intranet)

Specify Company:

_____ Louisville Gas & Electric Company (Utility)

__X__ Servco

SEND CHECK TO: Please wire to the instructions below

DUE DATE: ~~ASAP~~ 4-23-12

ACCOUNTING DISTRIBUTION					
CO. PRODUCT	RC / HC / ACCOUNT	EXP. TYPE	LOCATION		
PROJECT	TASK	EXP TYPE	EXP ORG	AMOUNT	
118418	PREPDINS	0674	026350	$4,188,045.65	
118419	PREPDINS	0674	026350	$4,537,049.45	
			TOTAL	$8,725,095.10	

Form SD 71-A
Rev. 7/98

Supplier Name	Marsh USA Inc.
	Wiring Instructions
Address:	Marsh Inc. Philadelphia
	Bank of NY Mellon
	ABA# 043-000-261
	Account# 185-8914
	Invoice #322191 LG&E and KU Energy LLC
Business Purpose:	LG&E and KU Energy LLC Master Property
	Renewal 04/01/2012 - 04/01/2013
	Prepared by signature: Date: Jeff Rausch 4/13/2012
	Certified by signature: Date: 4/13/2012 Treasurer
	Approved by signature: Date: 4/13/12
	Approver title: CFO ~~Treasurer~~

Attachment to KU KIUC-1 Question No. 1
Page 1 of 2
Arbough
For Reference Schedule 1.19

MARSH

Marsh USA Inc.
Philadelphia, PA - 205
215-246-1000

Invoice No.
322191

ORIGINAL INVOICE

Date: 4/11/12

John Diacogiannis
LG&E and KU Energy LLC
c/o PPL Corp. Risk & Insurance
Two North Ninth St. (GENTW8)
Allentown, PA 18101-1179

Effective Date	Expiration Date	Client No.
4/01/12	4/01/13	S27324

Policyholder: PPL CORP

ORIGINAL Billing Effective Date: 4/01/12

Insurer	Policy No.	Type of Coverage / Item	Amount
FACTORY MUTUAL	LS014	PROP/ALL RISK PREMIUM	3,940,186.00
		PROP/ALL RISK POLICY FEE	150,000.00
		PROP/ALL RISK PREMIUM	1,047,391.00
		PROP/ALL RISK PREMIUM TAX	198,068.00
AEGIS	L0117A1A12	PROP/ALL RISK PREMIUM	1,477,570.00
		PROP/ALL RISK SURPLUS LN TAX	48,227.88
ENERGY	310608-12GP	PROP/ALL RISK PREMIUM	1,149,221.00
		PROP/ALL RISK SURPLUS LN TAX	36,545.22
FACTORY MUTUAL	LS014	TER & POL VIOL PREMIUM	438,907.00
AEGIS	L0117A1A12	TER & POL VIOL PREMIUM	130,026.00
ENERGY	310608- 12GP	TER & POL VIOL PREMIUM	68,953.00
FEE BILLING	PROPERTY CONSULTIN	PROP CONSULTG FEE	40,000.00
		REMIT IN: UNITED STATES DOLLARS	
		L 48% 4,188,045.65	
		KS2% 4,537,049.45	

Please indicate Invoice # 322191 on your remittance to:

Marsh USA Inc.
P. O. Box 371237
Pittsburgh, PA 15251-7237

TOTAL: 8,725,095.10

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

Reference Schedule

1.21

Kentucky Utilities Company
Acct: 182321 - MISO Exit Fee

Company: 0110
USD
As of March 31, 2012

This account shall include the amounts of regulatory-created assets, resulting from the ratemaking actions of regulatory agencies, that can not be included in other accounts.

			86.537%	4.366%	0.419%	8.677%	0.001%		Ending Balance				
	Activity Description	GL Activity	KU - Kentucky	KU - Virgina	KU - Virgina Non-Juris.	KU - FERC	KU - TN	Ending Balance per G/L	KU - Kentucky	KU - Virgina	KU - FERC	KU - Tennessee	GAAP GL Balance
Apr-11	MISO Exit Fee Amortization-Apr-11	(115,535.25)	(102,006.42)	(13,528.83)					2,422,856.29	595,268.67	1,640,590.35	0.00	4,658,715.31
May-11	MISO Exit Fee Amortization-May-11	(115,535.25)	(102,006.42)	(13,528.83)					2,320,849.87	581,739.84	1,640,590.35	0.00	4,543,180.06
Jun-11	MISO Exit Fee Amortization-June-11	(115,535.25)	(102,006.42)	(13,528.83)					2,218,843.45	568,211.01	1,640,590.35	0.00	4,427,644.81
Jul-11	MISO Exit Fee Amortization-July-11	(142,592.91)	(102,006.42)	(40,586.49)					2,116,837.03	527,624.52	1,640,590.35	0.00	4,285,051.90
Aug-11	MISO Exit Fee Amortization-August-11	(115,535.25)	(102,006.42)	(13,528.83)					2,014,830.61	514,095.69	1,640,590.35	0.00	4,169,516.65
Sep-11	MISO Exit Fee Amortization-September-11	(115,535.25)	(102,006.42)	(13,528.83)					1,912,824.19	500,566.86	1,640,590.35	0.00	4,053,981.40
Oct-11	MISO Exit Fee Amortization-October-11	(115,535.25)	(102,006.42)	(13,528.83)					1,810,817.77	487,038.03	1,640,590.35	0.00	3,938,446.15
Nov-11	MISO Exit Fee Amortization-November-11	(115,535.25)	(102,006.42)	(13,528.83)					1,708,811.35	473,509.20	1,640,590.35	0.00	3,822,910.90
Nov-11	Reclass MISO Exit Reg Liab to Reg Asset	(61,794.48)		(61,794.48)					1,708,811.35	411,714.72	1,640,590.35	0.00	3,761,116.42
Dec-11	MISO Exit Fee Amortization-December-11	(115,535.25)	(102,006.42)	(13,528.83)					1,606,804.93	398,185.89	1,640,590.35	0.00	3,645,581.17
Dec-11	Reclass MISO Exit Reg Liab to Reg Asset	(1,631.54)		(1,631.54)					1,606,804.93	396,554.35	1,640,590.35	0.00	3,643,949.63
Jan-12	MISO Exit Fee Amortization-January-12	(112,595.50)	(102,006.42)	(10,589.08)					1,504,798.51	385,965.27	1,640,590.35	0.00	3,531,354.13
Jan-12	Reclass MISO Exit Reg Liab to Reg Asset	2,939.75		2,939.75					1,504,798.51	388,905.02	1,640,590.35	0.00	3,534,293.88
Jan-12	Reclass MISO Exit Reg Liab to Reg Asset	2,939.75		2,939.75					1,504,798.51	391,844.77	1,640,590.35	0.00	3,537,233.63
Feb-12	MISO Exit Fee Amortization-February-12	(112,595.50)	(102,006.42)	(10,589.08)					1,402,792.09	381,255.69	1,640,590.35	0.00	3,424,638.13
Mar-12	MISO Exit Fee Amortization-March-12	(112,595.50)	(102,006.42)	(10,589.08)					1,300,785.67	370,666.61	1,640,590.35	0.00	3,312,042.63
	Ending Balance per G/L	3,312,042.63	1,300,785.67	370,666.61	(0.00)	1,640,590.35	0.00	3,312,042.63					3,312,042.63
	Ending Balance S/B	3,312,042.63	1,300,785.67	370,666.61	-	1,640,590.35	-						
	Difference	0.00	-	(0.00)	0.00	(0.00)	0.00						

Kentucky Utilities Company
Acct: 254321 - MISO Exit Fee Refund

Company: 0110
USD
As of March 31, 2012

This account shall include the amounts of regulatory-created assets, resulting from the ratemaking actions of regulatory agencies, that can not be included in other accounts.

	Activity Description	Activity	KU - Kentucky 86.537%	KU - Virgina (91.238% of VA) 4.785%	VA Non-Juris (8.762% of VA)	KU - FERC 8.677%	KU - Tennessee 0.001%	Ending Balance per G/L
Apr-11	MISO Exit Refund Accrual - 4/11	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(789,047.45)
Apr-11	W/O VA Non-Juris & TN Exit Refund	157.06			156.69		0.37	(788,890.39)
May-11	MISO Exit Refund Accrual - 5/11	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(826,261.80)
May-11	W/O VA Non-Juris & TN Exit Refund	157.06			156.69		0.37	(826,104.74)
Jun-11	MISO Exit Refund Accrual -6/11	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(863,476.15)
Jun-11	W/O VA Non-Juris & TN Exit Refund	157.06			156.69		0.37	(863,319.09)
Jul-11	MISO Exit Refund Accrual -7/11	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(900,690.50)
Jul-11	W/O VA Non-Juris & TN Exit Refund	157.06			156.69		0.37	(900,533.44)
Aug-11	MISO Exit Refund Accrual -8/11	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(937,904.85)
Aug-11	W/O VA Non-Juris & TN Exit Refund	157.06			156.69		0.37	(937,747.79)
Sep-11	MISO Exit Refund Accrual -9/11	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(975,119.20)
Sep-11	W/O VA Non-Juris & TN Exit Refund	157.05			156.68		0.37	(974,962.15)
Oct-11	MISO Exit Refund Accrual -10/11	(37,371.40)	(32,340.09)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(1,012,333.55)
Oct-11	W/O VA Non-Juris & TN Exit Refund	157.05			156.68		0.37	(1,012,176.50)
Nov-11	MISO Exit Refund Accrual -11/11	(37,371.39)	(32,340.08)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(1,049,547.89)
Nov-11	W/O VA Non-Juris & TN Exit Refund	157.05			156.68		0.37	(1,049,390.84)
Nov-11	Reclass MISO Exit Reg Liab to Reg Asset	61,794.48		61,794.48				(987,596.36)
Dec-11	MISO Exit Refund Accrual -12/11	(37,371.39)	(32,340.08)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(1,086,762.23)
Dec-11	W/O VA Non-Juris & TN Exit Refund	157.05			156.68		0.37	(1,086,605.18)
Dec-11	Reclass MISO Exit Reg Liab to Reg Asset	1,631.54		1,631.54				(1,084,973.64)
Jan-12	MISO Exit Refund Accrual -01/12	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(1,122,345.05)
Jan-12	W/O VA Non-Juris & TN Exit Refund	157.05			156.68		0.37	(1,122,188.00)
Feb-12	MISO Exit Refund Accrual -02/12	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(1,159,559.41)
Feb-12	W/O VA Non-Juris & TN Exit Refund	157.05			156.68		0.37	(1,159,402.36)
Feb-12	True up MISO Exit Fee payment	20,314.88	17,579.89	886.89	85.17	1,762.72	0.20	(1,139,087.48)
Mar-12	MISO Exit Refund Accrual -03/12	(37,371.41)	(32,340.10)	(1,631.54)	(156.68)	(3,242.72)	(0.37)	(1,176,458.89)
Mar-12	W/O VA Non-Juris & TN Exit Refund	157.05			156.68		0.37	(1,176,301.84)
	Ending Balance per G/L	(1,114,507.36)	(949,289.47)	(4,007.71)	75.12	(161,285.39)	0.09	(55,904,438.00)
	Ending Balance S/B	(1,114,507.36)	(949,289.47)	(4,007.71)	75.12	(161,285.39)	0.09	
	Difference	-	-	-	-	-	-	

Reference Schedule

1.22

KENTUCKY UTILITIES COMPANY
TRIAL BALANCE - BALANCE SHEET ACCOUNTS
AS OF MARCH 31, 2012

Account	Description	Total Company Amount	Allocator(1)	KY Jurisdiction Balance
181184	UNAM EXP-PCB CC2002A $20.93M 2/32	81,318.34	0.87532	71,179.51
181185	UNAM EXP-PCB CC2002B $2.4M 2/32	56,515.62	0.87532	49,469.21
181186	UNAM EXP-PCB MERC2002A $7.4M 2/32	62,912.11	0.87532	55,068.18
181187	UNAM EXP-PCB MUHC2002A $2.4M 2/32	22,703.40	0.87532	19,872.72
181188	UNAM EXP-PCB CC2002C $96M 10/32	1,509,988.83	0.87532	1,321,722.37
181199	UNAM EXP-PCB CC2006B $54M 10/34	1,078,200.72	0.87532	943,769.90
182306	FUEL ADJUSTMENT CLAUSE	1,150,000.00	1.00000	1,150,000.00
182311	FERC JURISDICTIONAL PENSION EXPENSE	6,073,527.36	0.00000	-
182315	REGULATORY ASSET - FAS 158 PENSION	111,399,554.00	0.88938	99,076,404.56
182317	OTHER REGULATORY ASSETS ARO - GENERATION	8,922,473.85	0.86549	7,722,313.44
182318	OTHER REG ASSETS ARO - TRANSMISSION	19,986.56	0.86549	17,298.17
182320	WINTER STORM - ELECTRIC	41,973,623.06	1.00000	41,973,623.06
182321	MISO EXIT FEE	3,312,042.63	0.39274	1,300,785.67
182322	RATE CASE EXPENSES - ELECTRIC - PRE-PPL MERGER CURRENT PORTION	671,522.88	1.00000	671,522.88
182324	EKPC FERC TRANSMISSION COST - KY PORTION - PRE-PPL MERGER CURRENT PORTI(	334,697.04	1.00000	334,697.04
182325	OTHER REGULATORY ASSETS ARO - DISTRIBUTION	44,478.61	0.86549	38,495.80
182328	FASB 109 ADJ-FED	38,642,151.44	0.87544	33,828,936.15
182329	FASB 109 GR-UP-FED	24,601,958.94	0.87544	21,537,571.46
182330	FASB 109 ADJ-STATE	7,047,200.87	0.87544	6,169,410.85
182331	FASB 109 GR-UP-STATE	4,486,679.45	0.87544	3,927,824.59
182332	CMRG FUNDING (CARBON MGT RESEARCH GROUP)	34,146.56	1.00000	34,146.56
182333	KCCS FUNDING (KY CONSORTIUM FOR CARBON STORAGE)	307,320.18	1.00000	307,320.18
182334	WIND STORM REGULATORY ASSET	1,610,045.31	1.00000	1,610,045.31
182335	RATE CASE EXPENSES - ELECTRIC	253,775.72	1.00000	253,775.72
182337	EKPC FERC TRANSMISSION COSTS - KY PORTION	306,805.68	1.00000	306,805.68
182339	MOUNTAIN STORM - ELECTRIC	5,538,197.62	0.00000	-
182345	WINTER STORM - ELECTRIC - PRE-PPL MERGER CURRENT PORTION	5,723,675.76	1.00000	5,723,675.76
182347	WIND STORM - ELECTRIC - PRE-PPL MERGER CURRENT PORTION	219,551.64	1.00000	219,551.64
182348	CMRG FUNDING - PRE-PPL MERGER CURRENT PORTION	102,440.04	1.00000	102,440.04
182349	KCCS FUNDING - PRE-PPL MERGER CURRENT PORTION	230,490.12	1.00000	230,490.12
182356	REG ASSET - VA FUEL COMPONENT NON-CURRENT	4,552,000.00	0.00000	-
182359	GENERAL MANAGEMENT AUDIT - ELECTRIC	142,520.69	1.00000	142,520.69
183301	PRELIM SURV/INV-ELEC	1,994,471.59	0.87532	1,745,799.48
183302	PRELIMINARY SURV/INV ELEC - LT	2,135,017.59	0.87532	1,868,822.11
184010	HOLIDAY - BURDEN CLEARING	(707,536.63)	0.88938	(629,268.10)
184011	HOLIDAY PAY	417,159.04	0.88938	371,012.42
184020	SICK - BURDEN CLEARING	(567,221.43)	0.88938	(504,474.73)
184021	SICK PAY	779,960.43	0.88938	693,680.29
184030	OTHER OFF-DUTY - BURDEN CLEARING	(127,100.05)	0.88938	(113,040.09)
184031	OTHER OFF-DUTY PAY	282,983.20	0.88938	251,679.27
184040	TEAM INCENTIVE AWARD - BURDEN CLEARING	(1,294,410.68)	0.88938	(1,151,221.45)
184076	ADMINISTRATIVE AND GENERAL - BURDEN CLEARING	(244,103.70)	0.88938	(217,100.66)
184093	LONG TERM DISABILITY - BURDEN CLEARING	(1,639.21)	0.88938	(1,457.88)
184096	PENSIONS - BURDEN CLEARING	(1,142,382.25)	0.88938	(1,016,010.58)
184097	FASB 106 (OPEB) - BURDEN CLEARING	(783,890.75)	0.88938	(697,175.83)
184098	FASB 112 (OPEB) - BURDEN CLEARING	202,315.60	0.88938	179,935.21
184101	GROUP LIFE INSURANCE - BURDEN CLEARING	(29,342.03)	0.88938	(26,096.18)
184104	DENTAL INSURANCE - BURDEN CLEARING	(97,244.82)	0.88938	(86,487.48)
184105	MEDICAL INSURANCE - BURDEN CLEARING	(1,150,418.10)	0.88938	(1,023,157.50)
184108	401K - BURDEN CLEARING	135,708.91	0.88938	120,696.63
184109	RETIREMENT INCOME - BURDEN CLEARING	(81,608.27)	0.88938	(72,580.67)
184121	OTHER BENEFITS - BURDEN CLEARING	(19,782.38)	0.88938	(17,594.03)
184301	GASOLINE-TRANSP	6,827,179.15	0.88938	6,071,948.58
184304	VEHICLE REPR-TRANSP	14,470,080.78	0.88938	12,869,383.46
184307	ADMIN/OTH EXP-TRANSP	1,303,780.92	0.88938	1,159,555.14
184308	VALUE-ADD SVCSTR	1,127,454.85	0.88938	1,002,734.47
184309	DIESEL FUEL-TRANSP	6,891,429.18	0.88938	6,129,091.19
184312	RENT/STORAGE-TRANSP	37,397,763.55	0.88938	33,260,779.04
184313	TELECOM VEHICLE RADIO / COMPUTER EXPENSES	327,797.89	0.88938	291,536.50
184314	LICENSE/TAX-TRANSP	790,955.03	0.88938	703,458.66
184315	DEPRECIATION-TRANSP	543,779.20	0.88938	483,625.71
184319	FUEL ADMINISTRATION VEHICLES	327.91	0.88938	291.64
184320	TRANSPORTATION EXPENSE ALLOCATION - CLEARING	(68,628,289.99)	0.88938	(61,036,547.98)
184450	CL ACC TO OTH DEF CR	2,111,087.96	0.88938	1,877,556.93
184600	ENGINEERING OVERHEADS - GENERATION	(255,889.76)	0.88938	(227,582.93)
184602	ENGINEERING OVERHEADS - DISTRIBUTION	(1,464,268.82)	0.88938	(1,302,289.68)
184605	ENGINEERING OVERHEADS - TRANSMISSION	1,116,640.80	0.88938	993,116.68
184612	ENGINEERING OVERHEADS - DISTRIBUTION	1,868,724.47	0.88938	1,662,003.98
186001	MISC DEFERRED DEBITS	409,326.83	0.88249	361,225.82
186035	KEY MAN LIFE INSURANCE	41,290,959.36	0.86549	35,736,919.57
186049	PRELIMINARY CELL SITE COSTS	27,622.17	0.88938	24,566.57
186576	CARROLLTON SALE/LEASEBACK	49,999.80	0.88938	44,468.76
189034	UNAM LOSS-FMB Series R 06/25	239,407.53	0.87532	209,558.03
189042	UNAM LOSS-PCB MERC2000A $12.9M 05/23	518,069.24	0.87532	453,476.01
189084	UNAM LOSS-PCB CC2002A $20.93M 2/32	719,902.84	0.87532	630,144.85
189085	UNAM LOSS-PCB CC2002B $2.4M 2/32	82,429.93	0.87532	72,152.51
189086	UNAM LOSS-PCB MERC2002A $7.4M 2/32	252,912.55	0.87532	221,379.24
189087	UNAM LOSS-PCB MUHC2002A $2.4M 2/32	255,912.96	0.87532	224,005.55
189088	UNAM LOSS-PCB CC2002C $96M 10/32	3,813,577.63	0.87532	3,338,098.11

(1) Jurisdictional Allocator is truncated from actual.

Reference Schedule

1.23

KENTUCKY UTILITIES
CASE NO. 2012-00221
Schedule of Ratecase Preparation Costs
Response to Commission's Order
Dated June 15, 2012
Question No. 55(b)
Responding Witness: Lonnie E. Bellar

LINE NO				
1	ESTIMATED EXPENSES			
2	VENDOR	RATE	TOTAL UNITS	TOTAL ESTIMATED
3	LEGAL	$ 238.00	1,681	$ 400,000.00
4	CONSULTANTS	200.00	575	115,000.00
5	NEWSPAPER ADVERTISING			1,500,000.00
6	PRINTING COSTS & OTHER SUPPLIES			15,000.00
7	TOTAL PROJECTED COST			$ 2,030,000.00

Note: Estimate of 2012 Rate Case expenses are based upon the recoverable 2009 Rate Case expense.

Recoverable 2009 Rate Case Expenses	
Legal	$ 376,082.42
Consultants	154,248.50
Newspaper Advertising	1,468,650.20
Printing Costs & other Supplies	15,521.88
Total	$ 2,014,503.00

2008 Ratecase Expenses Amortization
Kentucky Utilities

460,558.68 921,117.48

			Current - 460,558.68				Long-Term - 921,117.48	
	Ratecase Expenses	Balance to be Amortized - Total	Monthly Amortization - 182322	Monthly Reclassification from Long-term to Current - 182322	Net Impact to Account 182322	Balance in Account **182322**	Monthly Reclassification from Long-term to Current - 182335	Balance in Account **182335**
Balance	1,381,676.16							
Mar-09	(38,379.89)	1,343,296.27	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	882,737.59
Apr-09	(38,379.89)	1,304,916.38	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	844,357.70
May-09	(38,379.89)	1,266,536.49	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	805,977.81
Jun-09	(38,379.89)	1,228,156.60	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	767,597.92
Jul-09	(38,379.89)	1,189,776.71	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	729,218.03
Aug-09	(38,379.89)	1,151,396.82	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	690,838.14
Sep-09	(38,379.89)	1,113,016.93	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	652,458.25
Oct-09	(38,379.89)	1,074,637.04	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	614,078.36
Nov-09	(38,379.89)	1,036,257.15	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	575,698.47
Dec-09	(38,379.89)	997,877.26	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	537,318.58
Jan-10	(38,379.89)	959,497.37	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	498,938.69
Feb-10	(38,379.89)	921,117.48	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	460,558.80
Mar-10	(38,379.89)	882,737.59	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	422,178.91
Apr-10	(38,379.89)	844,357.70	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	383,799.02
May-10	(38,379.89)	805,977.81	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	345,419.13
Jun-10	(38,379.89)	767,597.92	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	307,039.24
Jul-10	(38,379.89)	729,218.03	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	268,659.35
Aug-10	(38,379.89)	690,838.14	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	230,279.46
Sep-10	(38,379.89)	652,458.25	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	191,899.57
Oct-10	(38,379.89)	614,078.36	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	153,519.68
Nov-10	(38,379.89)	575,698.47	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	115,139.79
Dec-10	(38,379.89)	537,318.58	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	76,759.90
Jan-11	(38,379.89)	498,938.69	(38,379.89)	38,379.89	-	460,558.68	(38,379.89)	38,380.01
Feb-11	(38,379.89)	460,558.80	(38,379.89)	38,380.01	0.12	460,558.80	(38,379.89)	0.12
Mar-11	(38,379.89)	422,178.91	(38,379.89)			422,178.91		
Apr-11	(38,379.89)	383,799.02	(38,379.89)			383,799.02		
May-11	(38,379.89)	345,419.13	(38,379.89)			345,419.13		
Jun-11	(38,379.89)	307,039.24	(38,379.89)			307,039.24		
Jul-11	(38,379.89)	268,659.35	(38,379.89)			268,659.35		
Aug-11	(38,379.89)	230,279.46	(38,379.89)			230,279.46		
Sep-11	(38,379.89)	191,899.57	(38,379.89)			191,899.57		
Oct-11	(38,379.89)	153,519.68	(38,379.89)			153,519.68		
Nov-11	(38,379.89)	115,139.79	(38,379.89)			115,139.79		
Dec-11	(38,379.89)	76,759.90	(38,379.89)			76,759.90		
Jan-12	(38,379.89)	38,380.01	(38,379.89)			38,380.01		
Feb-12	(38,380.01)	0.00	(38,380.01)			(0.00)		
	0.00							

2009 Ratecase Expenses Amortization 671,522.88 1,343,045.64
Kentucky Utilities

			Current -671,522.88				Long-Term - 1,343,045.64	
	Ratecase Expenses	Balance to be Amortized - Total	Monthly Amortization - 182322	Monthly Reclassification from Long-term to Current - 182322	Net Impact to Account 182322	Balance in Account **182322**	Monthly Reclassification from Long-term to Current - 182335	Balance in Account **182335**
Balance	2,014,568.52							
Aug-10	(55,960.24)	1,958,608.28	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	1,287,085.40
Sep-10	(55,960.24)	1,902,648.04	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	1,231,125.16
Oct-10	(55,960.24)	1,846,687.80	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	1,175,164.92
Nov-10	(55,960.24)	1,790,727.56	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	1,119,204.68
Dec-10	(55,960.24)	1,734,767.32	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	1,063,244.44
Jan-11	(55,960.24)	1,678,807.08	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	1,007,284.20
Feb-11	(55,960.24)	1,622,846.84	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	951,323.96
Mar-11	(55,960.24)	1,566,886.60	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	895,363.72
Apr-11	(55,960.24)	1,510,926.36	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	839,403.48
May-11	(55,960.24)	1,454,966.12	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	783,443.24
Jun-11	(55,960.24)	1,399,005.88	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	727,483.00
Jul-11	(55,960.24)	1,343,045.64	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	671,522.76
Aug-11	(55,960.24)	1,287,085.40	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	615,562.52
Sep-11	(55,960.24)	1,231,125.16	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	559,602.28
Oct-11	(55,960.24)	1,175,164.92	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	503,642.04
Nov-11	(55,960.24)	1,119,204.68	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	447,681.80
Dec-11	(55,960.24)	1,063,244.44	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	391,721.56
Jan-12	(55,960.24)	1,007,284.20	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	335,761.32
Feb-12	(55,960.24)	951,323.96	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	279,801.08
Mar-12	(55,960.24)	895,363.72	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	223,840.84
Apr-12	(55,960.24)	839,403.48	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	167,880.60
May-12	(55,960.24)	783,443.24	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	111,920.36
Jun-12	(55,960.24)	727,483.00	(55,960.24)	55,960.24	-	671,522.88	(55,960.24)	55,960.12
Jul-12	(55,960.24)	671,522.76	(55,960.24)	55,960.12	(0.12)	671,522.76	(55,960.24)	(0.12)
Aug-12	(55,960.24)	615,562.52	(55,960.24)			615,562.52		
Sep-12	(55,960.24)	559,602.28	(55,960.24)			559,602.28		
Oct-12	(55,960.24)	503,642.04	(55,960.24)			503,642.04		
Nov-12	(55,960.24)	447,681.80	(55,960.24)			447,681.80		
Dec-12	(55,960.24)	391,721.56	(55,960.24)			391,721.56		
Jan-13	(55,960.24)	335,761.32	(55,960.24)			335,761.32		
Feb-13	(55,960.24)	279,801.08	(55,960.24)			279,801.08		
Mar-13	(55,960.24)	223,840.84	(55,960.24)			223,840.84		
Apr-13	(55,960.24)	167,880.60	(55,960.24)			167,880.60		
May-13	(55,960.24)	111,920.36	(55,960.24)			111,920.36		
Jun-13	(55,960.24)	55,960.12	(55,960.24)			55,960.12		
Jul-13	(55,960.12)	0.00	(55,960.12)			0.00		
	0.00							

Reference Schedule

1.30

Kentucky Utilities Company
Analysis of Interest Charges
March 31, 2012

	Current Month		Year to Date		Year Ended Current Month	
	This Year	Last Year	This Year	Last Year	This Year	Last Year
Interest on Long-Term Debt						
Loan Agreement - Pollution Control Bonds						
Mercer County 2000 Series A due 05/01/23 Var%..............	$ 1,624.84	$ 2,763.78	$ 4,035.65	$ 8,390.30	$ 19,921.68	$ 42,117.54
Carroll County 2002 Series A due 02/01/32 Var%..............	6,204.66	17,546.80	20,157.99	43,259.17	150,526.09	146,877.03
Carroll County 2002 Series B due 02/01/32 Var%..............	711.48	1,989.04	2,422.95	5,008.24	16,905.20	16,889.88
Carroll County 2002 Series C due 10/01/32 Var%..............	22,672.00	30,352.00	39,781.34	87,040.00	207,152.10	511,152.00
Mercer County 2002 Series A due 02/01/32 Var%..............	2,193.72	5,321.92	7,470.78	14,293.15	52,093.79	50,928.22
Muhlenburg County 2002 Series A due 02/01/32 Var%.......	711.48	1,726.03	2,422.95	4,635.62	16,895.31	16,517.26
Carroll County 2004 Series A due 10/01/34 Var%..............	6,571.04	11,753.42	16,297.83	37,616.44	81,941.60	157,630.14
Carroll County 2006 Series B due 10/01/34 Var%..............	7,037.70	13,048.77	17,749.17	41,439.45	89,147.52	170,092.60
Carroll County 2007 Series A due 02/01/26 5.75%.............	85,651.04	85,651.04	256,953.13	256,953.12	1,027,812.51	1,027,812.49
Trimble County 2007 Series A due 03/01/37 6.00%............	44,635.00	44,635.00	133,905.00	133,905.00	535,620.00	535,620.00
Carroll County 2008 Series A due 02/01/32 Var%..............	10,222.61	18,429.76	25,769.50	58,642.08	128,318.36	244,413.16
Loan Agreement - First Mortgage Bonds						
First Mortgage Bond due 11/01/15 1.625%.........................	338,541.66	338,541.67	1,015,625.00	1,015,625.01	4,062,499.98	1,523,437.52
First Mortgage Bond due 11/01/20 3.250%.........................	1,354,166.66	1,354,166.67	4,062,500.00	4,062,500.01	16,249,999.98	6,093,750.02
First Mortgage Bond due 11/01/40 5.125%.........................	3,203,125.00	3,203,125.00	9,609,375.00	9,609,375.00	38,437,500.00	14,414,062.50
Fidelia/PPL..	-	-	-	-	-	45,725,765.28
Total..	5,084,068.89	5,129,050.90	15,214,466.29	15,378,682.59	61,076,334.12	70,677,065.64
Amortization of Debt Expense - Net						
Amortization of Debt/Discount Expense.................................	255,443.25	241,061.64	766,329.75	720,597.25	3,168,966.21	1,250,684.55
Amortization of Loss on Reacquired Debt...............................	50,414.39	50,414.39	151,243.17	151,243.17	604,972.68	604,911.40
Total..	305,857.64	291,476.03	917,572.92	871,840.42	3,773,938.89	1,855,595.95
Other Interest Charges						
Customers' Deposits..	111,902.51	110,557.01	328,563.51	319,130.60	1,373,105.57	1,300,429.27
Other Tax Deficiencies..	67,194.00	5,544.00	67,194.00	(84,914.00)	170,466.75	2,155.07
Interest on DSM Cost Recovery...	(558.36)	(4,009.18)	(11,395.79)	(1,501.88)	1,801.12	7,066.48
Interest on Debt to Associated Companies..............................	-	970.73	1,181.62	3,926.90	3,576.07	107,135.83
AFUDC Borrowed Funds..	(866.43)	(549.45)	(2,432.58)	(1,495.57)	(13,892.09)	(731,782.42)
Other Interest Expense..	254,907.24	411,481.04	777,394.99	1,196,697.55	3,558,432.13	3,079,505.39
Total..	432,578.96	523,994.15	1,160,505.75	1,431,843.60	5,093,489.55	3,764,509.62
Total Interest..	$ 5,822,505.49	$ 5,944,521.08	$ 17,292,544.96	$ 17,682,366.61	$ 69,943,762.56	$ 76,297,171.21

April 26, 2012

Reference Schedule

1.31

KENTUCKY UTILITIES COMPANY

	12ME 3/31/2012	12ME 3/31/2012
Development of Income Taxes	FEDERAL	STATE
Operating Income Before Tax		
Operating Income	224,355,338	224,355,338
Add Back: Income Taxes	98,561,045	98,561,045
SUBTOTAL	322,916,383	322,916,383
Interest expense including AFUDC Debt	(69,943,763)	(69,943,763)
Customer deposits	1,373,106	1,373,106
Other interest expense taxed below the line	172,268	172,268
State income tax	(12,996,823)	
Sec. 199 Manufacturing Deduction	29,860	(3,773,628)
Meals	137,097	137,097
AFUDC Equity Depreciation	1,004,463	1,004,463
OPERATING TAXABLE INCOME	242,692,591	251,885,926
Income Tax	84,942,407	15,113,156
Adjustments:		
Tax return prior year true-up	398,377	(358,052)
203(E) Excess deferred taxes prior year true-up	409,205	182,941
203(E) Excess deferred taxes	(924,700)	(331,857)
TC2 depreciation basis adjustment	955,154	163,740
R&E Credit	(214,221)	
Hire Credit	(2,000)	
Coal Credit	-	(1,773,105)
Total Operating Income Tax	85,564,222	12,996,823
	85,564,223	12,996,822
Difference	(1)	1

for Reference Schedule 1.31 which removes prior year income tax true ups and adjustments.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-2

Responding Witness: Robert M. Conroy

Q1-2. Please provide the electronic spreadsheets, with formulas intact, used to develop each of Mr. Conroy's exhibits in this case (P1 to P7, C1 to C7, R1 to R6, and M1 to M8). Please include a working version (with all formulas intact) of the class cost of service model, including all functionalization, classification and allocation calculations.

A1-2. See the response to PSC 2-75.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-3

Responding Witness: Robert M. Conroy

Q1-3. To the extent not included in the response to the previous question, please provide all supporting workpapers, including electronic spreadsheets with formulas intact, used to develop the requested exhibits of Mr. Conroy.

A1-3. See the response to PSC 2-75.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-4

Responding Witness: Robert M. Conroy

Q1-4. Please provide all workpapers supporting the development of the each demand and energy allocation factor used in the class cost of service study. Include all electronic spreadsheets with formulas intact.

A1-4. See the response to PSC 2-75.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-5

Responding Witness: Robert M. Conroy

Q1-5. Please provide all workpapers and a detailed explanation of the methodology used to adjust each demand and energy allocation factor (used in the class cost of service study) to reflect the annualizing of year-end customers. To the extent that the methodology differs by rate schedule, please provide an explanation for each rate schedule or group of similar rate schedules.

A1-5. See the response to PSC 2-75. Demand and energy allocation factors were not adjusted to reflect the annualizing of year-end customers.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-6

Responding Witness: Robert M. Conroy

Q1-6. Please provide all workpapers and a detailed explanation of the methodology used to adjust each demand and energy allocation factor (used in the class cost of service study) to reflect the rate switching adjustments made by the Company. To the extent that the methodology differs by rate schedule, please provide an explanation for each rate schedule or group of similar rate schedules.

A1-6. See the response to PSC 2-75. The adjustment for rate switching made in the KU cost of service study was based upon the demand and energy of the customers who switched rate schedules during the test year. For the customers who moved, their applicable demands (if known) and energy were removed from the rate schedule they moved from and to the rate schedule on which they are now served. Once the total energy and demand moving from and to each rate schedule where rate switching occurred were identified, the net difference was applied to the appropriate energy and demand allocator.

For the customers whose demands were not known due to not being billed under a demand rate, the average demand based upon their energy usage was calculated and removed from the rate schedule the customer moved from and to the rate schedule under which the customer is now taking service. The calculated average demand was then applied to each demand allocator (CP, NCP, etc) based upon a ratio calculated from the KU class load study. For customers with known demands, the monthly demand values were calculated and applied to the appropriate allocator based upon the same ratios from the KU class load study. Those ratios and the development of the rate switching adjustments used in the cost of service study can be seen in attached analysis.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-7

Responding Witness: Robert M. Conroy

Q1-7. Please provide all workpapers (including electronic spreadsheets with formulas intact) supporting the "revenue allocation," as discussed by Mr. Conroy on page 28 at lines 7 to 18 of his testimony.

A1-7. See the response to PSC 2-75.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-8

Responding Witness: Robert M. Conroy

Q1-8. Please provide monthly coincident peak demand for month of the test year, for each rate class (this requests seeks all twelve months of rate class CP demands corresponding to the summer and winter month CP demands used to develop allocation factors PPWDA and PPWSA).

A1-8. See attached.

KU Coincident Peaks by Rate Class					Residential	General Service	All Electric Schools	TOD Secondary
4/1/11 6:00 AM	2012	4	1	6	1,015,298.9	266,105.7	44,514.2	41,993.4
5/31/11 3:00 PM	2011	5	31	15	1,197,650.1	301,379.1	30,757.6	71,650.3
6/8/11 2:00 PM	2011	6	8	14	1,200,175.1	401,944.6	29,304.3	68,561.1
7/11/11 3:00 PM	2011	7	11	15	1,313,961.7	401,895.1	22,979.4	73,780.0
8/2/11 3:00 PM	2011	8	2	15	1,549,925.2	340,357.8	19,970.8	61,860.2
9/2/11 3:00 PM	2011	9	2	15	1,483,988.6	308,700.1	32,744.1	68,115.4
10/7/11 4:00 PM	2011	10	7	16	603,495.1	223,893.7	18,742.3	58,067.5
11/18/11 7:00 AM	2011	11	18	7	1,028,352.7	293,630.5	40,618.8	50,705.2
12/12/11 7:00 AM	2011	12	12	7	1,279,038.1	300,691.6	35,491.3	47,977.5
1/13/12 9:00 AM	2012	1	13	9	1,474,667.9	407,399.4	27,642.6	55,476.5
2/13/12 7:00 AM	2012	2	13	7	1,472,809.9	331,324.9	43,963.9	49,838.8
3/6/12 7:00 AM	2012	3	6	7	1,369,611.9	269,749.0	32,621.6	42,055.5

Coincident Peaks to the Combined System Peaks

KU Coincident Peaks by Rate Class					TOD Primary	PS Secondary	PS Primary	Large TOD
4/1/11 6:00 AM	2012	4	1	6	74,571.9	356,147.0	116,491.3	333,716.5
5/31/11 3:00 PM	2011	5	31	15	108,360.5	504,482.3	150,554.7	404,387.9
6/8/11 2:00 PM	2011	6	8	14	112,228.2	516,918.7	131,161.3	426,034.9
7/11/11 3:00 PM	2011	7	11	15	117,701.9	520,814.1	142,872.7	406,695.4
8/2/11 3:00 PM	2011	8	2	15	104,737.0	461,341.5	112,995.3	370,591.1
9/2/11 3:00 PM	2011	9	2	15	109,804.3	461,843.1	121,406.2	401,207.9
10/7/11 4:00 PM	2011	10	7	16	105,775.3	403,964.9	103,568.2	386,412.8
11/18/11 7:00 AM	2011	11	18	7	112,272.8	403,869.2	93,681.3	398,078.5
12/12/11 7:00 AM	2011	12	12	7	103,391.5	365,921.4	85,228.0	343,551.6
1/13/12 9:00 AM	2012	1	13	9	110,152.3	413,867.7	101,770.4	365,104.3
2/13/12 7:00 AM	2012	2	13	7	101,276.6	370,443.6	79,510.5	345,056.1
3/6/12 7:00 AM	2012	3	6	7	95,695.3	316,193.0	72,827.0	297,360.4

Coincident Peaks to the Combined System Peaks

KU Coincident Peaks by Rate Class					RTS	Ind. Service Trans.	Unmetered Lighting	Traffic Energy Service	Lighting Energy Service
4/1/11 6:00 AM	2012	4	1	6	161,379.4	43,054.9	-	125.7	-
5/31/11 3:00 PM	2011	5	31	15	242,518.8	84,081.8	-	125.7	-
6/8/11 2:00 PM	2011	6	8	14	232,243.6	57,130.2	-	125.7	-
7/11/11 3:00 PM	2011	7	11	15	226,867.0	70,222.8	-	125.7	-
8/2/11 3:00 PM	2011	8	2	15	197,683.7	48,757.8	-	125.7	-
9/2/11 3:00 PM	2011	9	2	15	207,143.3	51,808.1	-	125.7	-
10/7/11 4:00 PM	2011	10	7	16	206,584.9	157,510.4	-	125.7	-
11/18/11 7:00 AM	2011	11	18	7	210,421.0	52,121.3	-	125.7	-
12/12/11 7:00 AM	2011	12	12	7	176,490.1	53,131.6	28,111.6	125.7	9.1
1/13/12 9:00 AM	2012	1	13	9	217,477.8	53,174.2	-	125.7	-
2/13/12 7:00 AM	2012	2	13	7	178,983.9	40,009.4	28,111.6	125.7	9.1
3/6/12 7:00 AM	2012	3	6	7	154,724.2	44,478.6	-	125.7	-

Coincident Peaks to the Combined System Peaks

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-9

Responding Witness: Robert M. Conroy

Q1-9. Please provide all analyses and excel spreadsheets (with formulas intact), supporting the Company's proposed rate design, including proof of revenues by rate schedule.

A1-9. See the response to PSC 2-75.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-10

Responding Witness: Robert M. Conroy

Q1-10. With regard to Mr. Conroy's testimony on page 36 at lines 9 through 18, Mr. Conroy states that the proposed change in Rate FLS "minimum calculation for the test year has no impact on the customer served under Rate FLS". Please provide an analysis showing the impact of the proposed change in Rate FLS had it been in effect for each of the last five years in electronic format with all formulas intact.

A1-10. See attached for the requested analysis at the current rate structure, provided for the period August 2010 through March 2012, which shows the Rate FLS demand billings equaled measured demand readings; therefore, minimum bill conditions do not apply. Prior to 2010, billing determinates consisted of a 2-tier seasonal structure not consistent with the current rate structure; therefore, the requested analysis has not been done.

Billing Period	Billed KW/KVA Base Qty	Billed KW/KVA Int Qty	Billed KW/KVA Peak Qty	Measured KW/KVA Base Qty	Measured KW/KVA Int Qty	Measured KW/KVA Peak Qty
2010/08	154,828.400	149,724.300	90,148.900	154,828.400	149,724.300	90,148.900
2010/09	147,688.700	147,688.700	92,798.600	147,688.700	147,688.700	92,798.600
2010/10	143,806.100	143,806.100	89,178.600	143,806.100	143,806.100	89,178.600
2010/11	141,206.800	141,206.800	88,343.100	141,206.800	141,206.800	88,343.100
2010/12	159,637.400	159,637.400	91,599.300	159,637.400	159,637.400	91,599.300
2011/01	178,081.000	178,081.000	93,971.400	178,081.000	178,081.000	93,971.400
2011/02	175,400.900	175,400.900	91,549.900	175,400.900	175,400.900	91,549.900
2011/03	177,320.000	177,320.000	93,581.400	177,320.000	177,320.000	93,581.400
2011/04	177,499.100	177,499.100	92,930.500	177,499.100	177,499.100	92,930.500
2011/05	179,777.400	179,777.400	179,777.400	179,777.400	179,777.400	179,777.400
2011/06	176,297.900	176,297.900	140,229.100	176,297.900	176,297.900	140,229.100
2011/07	176,188.200	133,058.800	86,745.200	176,188.200	133,058.800	86,745.200
2011/08	180,474.000	180,474.000	93,990.700	180,474.000	180,474.000	93,990.700
2011/09	184,332.200	184,332.200	74,496.500	184,332.200	184,332.200	74,496.500
2011/10	183,009.200	183,009.200	78,465.500	183,009.200	183,009.200	78,465.500
2011/11	180,264.500	180,264.500	77,545.900	180,264.500	180,264.500	77,545.900
2011/12	180,833.900	180,833.900	77,097.100	180,833.900	180,833.900	77,097.100
2012/01	183,139.700	183,139.700	78,209.700	183,139.700	183,139.700	78,209.700
2012/02	185,657.600	185,657.600	77,339.000	185,657.600	185,657.600	77,339.000
2012/03	182,440.500	182,440.500	77,042.200	182,440.500	182,440.500	77,042.200

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-11

Responding Witness: William E. Avera

Q1-11. Please provide all work papers and supporting documents used by Dr. Avera in the preparation of his Direct Testimony and Exhibits. Please provide all spreadsheets in Excel format with cell formulas intact. Please include copies of all articles, Commission Orders, memoranda, and other supporting documents cited or referred to by Dr. Avera in his testimony.

A1-11. Dr. Avera's workpapers and supporting documents are attached, including all articles cited in his testimony. The Excel workbook in native format used to develop his exhibits is also attached. Regulatory and court decisions cited by Dr. Avera are publicly available, and can be obtained by the respective agency based on the citation provided in his testimony.

The attachment is being provided in a separate file in Excel format.

3 Files

The attachment is being provided in a separate file.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-12

Responding Witness: Daniel K. Arbough

Q1-12. Please provide all bond rating agency reports, including credit ratings and bond ratings, for Kentucky Utilities from 2008 through the most current date.

A1-12. See attached.

Kentucky Utilities Company

A Subsidiary of PPL Corporation
Full Rating Report

Ratings

Long-Term IDR	A–
Short-Term IDR	F2
Secured	A+

Rating Outlook

Long-Term IDR	Stable

IDR – Issuer default rating.

Financial Data

Kentucky Utilities Company

($ Mil.)	9/30/11	12/31/10
Revenue	1,556	1,511
Gross Margin	929	841
Operating EBITDA	543	495
Net Income	190	175
Cash from Operations	424	372
Total Adjusted Debt	1,841	1,851
Total Capitalization	4,588	4,542
Capex/Depreciation (x)	1.8	2.6

Related Research

Louisville Gas and Electric Company, Dec. 16, 2011

LG&E and KU Energy LLC, Dec. 16, 2011

PPL Corporation, Dec. 16, 2011

PPL Energy Supply, LLC, Dec. 16, 2011

PPL Electric Utilities Corporation, Dec. 16, 2011

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Key Rating Drivers

Solid Credit Metrics: The ratings of Kentucky Utilities Company (KU) reflect solid credit metrics and constructive regulatory policies that limit cash flow volatility and business risk. Interest coverage measures are particularly robust, and Fitch Ratings expects EBITDA to interest and FFO to interest to remain above 7.0x and 6.0x, respectively, over the next several years. FFO to debt is expected to approximate 20% over the same period, and debt to EBITDA, on average, about 3.6x.

Constructive Regulatory Mechanisms: An environmental cost recovery (ECR) mechanism In Kentucky mitigates the construction risk of KU's large capital budget. The ECR provides for recovery of and a return on environmental investments. Approved costs are recovered in rates two months after incurred. The mechanism is particularly important given the company's reliance on coal-fired electric generation and the substantial investment required to meet the Environmental Protection Agency's (EPA) newest regulations.

Rising Capex: Capex is expected to rise substantially over the next four years (2012–2015). The higher capex is primarily to install pollution-control equipment, and to replace older units that are not cost-effective to retrofit and will be retired. The four-year capital budget (2012–2015) aggregates approximately $2.9 billion. Capex peaks in 2013 and 2014. Approximately 68% of capex ($2.0 billion) is environmental costs.

Base Rate Freeze: KU is prohibited from seeking a base rate adjustment to be effective prior to Jan. 1, 2013 (excluding fuel and ECR adjustments), which will require the company to absorb cost increases in the interim. The provision was imposed by the Kentucky Public Service Commission (KPSC) as part of its approval of PPL Corporation's (PPL) acquisition of LG&E and KU Energy, LLC (LKE). KU retains the right to seek deferral of extraordinary costs.

Environmental Cost Recovery Plan: KU filed an ECR plan requesting recovery of $1.1 billion of environmental compliance costs and operating expenses as incurred in June 2011. The estimated rate effect is 2.3% annually. KU reached a settlement agreement with interveners in November, supporting approval of $850 million. Remaining costs are deferred, and KU may seek recovery in a future proceeding. The KPSC approved the settlement on Dec. 15, 2011.

Certificate of Public Convenience and Necessity (CPCN): KU and affiliate Louisville Gas and Electric Co. (LG&E) filed a CPCN plan in September 2011, requesting approval to build a 640-MW natural gas combined-cycle (NGCC) generating unit, and to purchase three simple-cycle natural gas combustion turbines, aggregating 495 MW from Blue Grass Generation Co. The NGCC plant is estimated to cost $583 million and the peaking units $110 million.

What Could Trigger a Rating Action

Regulatory Changes: Fitch expects a balanced regulatory environment for KU. Any unexpected adverse ruling in future rate proceedings could adversely affect ratings..

Parent Risk Profile: An increase in parent PPL's leverage or in its risk appetite could adversely affect KU's ratings.

Liquidity and Debt Structure

Liquidity Is Adequate

To support its working capital needs, KU has a $400 million syndicated bank credit facility that expires in October 2016. KU also has a separate $198 million letter of credit (LOC) facility to support outstanding variable-rate tax-exempt debt. There were no borrowings under the syndicated credit facility as of Sept. 30, 2011. The LOC facility is fully drawn.

KU Credit Facilities

($ Mil., As of Sept. 30, 2011)

Type	Amount	Expiration Date	Borrowed	LOC Issued	Available
Syndicated Credit Facility	400	October 2016	0	0	400
Letter of Credit Facility	198	April 2014	N.A.	198	0

N.A. – Not applicable. LOC – Letter of credit.
Source: PPL Corp.

Both credit agreements contain a financial covenant requiring debt to total capitalization to not exceed 70%. The actual leverage ratio is well within the requirements of the debt covenant. Cash and equivalents at Sept. 30, 2011, were $94 million. Short-term funds of up to $400 million are also available through an intercompany money pool agreement with LKE and LG&E. LKE participates as a lender, but cannot borrow from the utilities. There are no debt maturities before 2015.

KU will need to supplement its internal cash flows with external financings to fund its large capex program. Fitch anticipates the company will use a balanced mix of debt and equity to supplement internally generated cash. Equity is invested by KU's corporate parent PPL.

Capex

Capex is expected to rise substantially over the next four years (2012–2015). The higher capex is primarily to meet environmental compliance standards. The four-year capital budget aggregates approximately $2.9 billion, as shown in the table below. Capex begins to ramp up in 2012, and peak in 2013 and 2014 at $787 million and $789 million, respectively. Approximately 68% of capex ($2.0 billion) is environmental costs.

The company's environmental compliance plan includes the installation of pollution-control equipment, and the construction of replacement generation for plants that are not economic to retrofit and will be retired. To meet the new EPA regulations, KU and affiliate LG&E announced plans to retire three coal units and add new natural gas-fired generating capacity, as described below. The three units to be retired aggregate 797 MW, including Cane Run (563 MW), Tyrone (71 MW), and Green River (163 MW).

Related Criteria

Corporate Rating Methodology, Aug. 12, 2011

Recovery Ratings and Notching Criteria for Utilities, Aug. 12, 2011

Rating North American Utilities, Power, Gas, and Water Companies, May 16, 2011

Capex

($ Mil.)	2011	2012	2013	2014	2015
Generating Facilities	67	72	60	61	79
Transmission and Distribution	105	119	150	143	139
Environmental	139	440	554	564	428
Other	19	26	23	21	33
Total	**330**	**657**	**787**	**789**	**679**

Source: Sept. 30, 2011 10-Q.

Environmental Cost Recovery Plan

KU filed an ECR plan in June 2011 requesting recovery of the estimated $1.1 billion cost of installing pollution-control equipment and operating expenses as incurred. The environmental upgrades include bag houses on units at the E.W. Brown and Ghent generating stations and conversion of a wet storage facility to a dry landfill at E.W. Brown. The bag houses are estimated to cost $343 million and $712 million, respectively, and the landfill $59 million. The estimated rate effect is 2.3% annually over the 2011–2016 period.

KU reached a settlement agreement with interveners in November 2011. The parties agreed to support approval of $850 million of environmental compliance costs. The remaining $250 million are deferred, and KU may seek recovery in a future proceeding. The KSPC approved the settlement on Dec. 15, 2011.

Certificate of Public Convenience and Necessity (CPCN)

KU and LG&E filed a CPCN with the KPSC in September 2011 requesting approval to build a 640-MW NGCC generating plant. KU will own 78% of the new NGCC and LG&E 22%. The two companies also requested approval to purchase three simple-cycle natural gas combustion turbines, aggregating 495 MW of peaking generation, from Blue Grass Generation Co.

The NGCC construction and Bluegrass Plant acquisition will cost an estimated $800 million, composed of $500 million for KU and $300 million for LG&E. Recovery of these costs were not included in the CPCN filing, but are expected to be included in a future rate case filing.

Company Background

KU is a regulated utility engaged in the generation, transmission, and distribution of electricity in Kentucky, Virginia, and Tennessee. Approximately 98% of electric generation is derived from the company's four coal-fired generating stations, and the remainder from natural gas oil and a hydroelectric plant. In 2010, residential customers accounted for approximately 36% of electric revenue, industrial customers 47%, municipals 7%, other retail 9%, and wholesale sales 1%.

KU became an indirect subsidiary of PPL on Nov. 1, 2010, when PPL acquired KU's direct parent LKE from E.ON AG.

Financial Summary — Kentucky Utilities Company

($ Mil., Years Ending Dec. 31)	2007	2008	2009	2010	LTM 9/30/11
Fundamental Ratios (x)					
FFO/Interest Expense	6.59	5.19	5.53	5.49	6.66
CFO/Interest Expense	6.39	5.06	4.37	5.77	6.97
FFO/Debt (%)	24.33	19.49	19.69	18.90	21.83
Operating EBIT/Interest Expense	4.79	3.61	3.59	4.49	5.14
Operating EBITDA/Interest Expense	6.95	5.50	5.36	6.35	7.65
Operating EBITDAR/(Interest Expense + Rent)	6.95	5.50	5.36	6.35	7.65
Debt/Operating EBITDA	3.31	3.91	4.30	3.74	3.39
Common Dividend Payout (%)	—	—	—	28.57	46.32
Internal Cash/Capital Expenses (%)	40.70	42.57	49.03	84.96	104.35
Capital Expenses/Depreciation (%)	613.22	504.41	387.97	261.38	180.90
Profitability					
Adjusted Revenues	1,273.00	1,405.00	1,355.00	1,511.00	1,556.00
Net Revenues	644.00	671.00	722.00	841.00	929.00
Operating and Maintenance Expense	255.00	275.00	320.00	346.00	374.00
Operating EBITDA	389.00	396.00	402.00	495.00	543.00
Depreciation and Amortization Expense	121.00	136.00	133.00	145.00	178.00
Operating EBIT	268.00	260.00	269.00	350.00	365.00
Gross Interest Expense	56.00	72.00	75.00	78.00	71.00
Net Income for Common	167.00	158.00	133.00	175.00	190.00
Operating Maintenance Expense as % of Net Revenue	39.60	40.98	44.32	41.14	40.39
Operating EBIT as % of Net Revenues	41.61	38.75	37.26	41.62	39.42
Cash Flow					
Cash Flow from Operations	302.00	292.00	253.00	372.00	424.00
Change in Working Capital	(11.00)	(10.00)	(87.00)	22.00	22.00
Funds from Operations	313.00	302.00	340.00	350.00	402.00
Dividends	—	—	—	(50.00)	(88.00)
Capital Expenditures	(742.00)	(686.00)	(516.00)	(379.00)	(322.00)
FCF	(440.00)	(394.00)	(263.00)	(57.00)	14.00
Net Other Investment Cash Flow	12.00	1.00	9.00	—	—
Net Change in Debt	347.00	260.00	179.00	123.00	97.00
Net Equity Proceeds	75.00	145.00	75.00	—	—
Capital Structure					
Short-Term Debt	23.00	16.00	45.00	10.00	—
Long-Term Debt	1,264.00	1,532.00	1,682.00	1,841.00	1,841.00
Total Debt	**1,287.00**	**1,548.00**	**1,727.00**	**1,851.00**	**1,841.00**
Total Hybrid Equity and Minority Interest	—	—	—	—	—
Common Equity	1,435.00	1,744.00	1,952.00	2,691.00	2,747.00
Total Capital	**2,722.00**	**3,292.00**	**3,679.00**	**4,542.00**	**4,588.00**
Total Debt/Total Capital (%)	47.28	47.02	46.94	40.75	40.13
Total Hybrid Equity and Minority Interest/Total Capital (%)	—	—	—	—	—
Common Equity/Total Capital (%)	52.72	52.98	53.06	59.25	59.87

Source: Fitch Ratings.

The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.

Moody's Investors Service

Global Credit Research
Credit Opinion
16 MAY 2008

Credit Opinion: Kentucky Utilities Co.

Kentucky Utilities Co.

Lexington, Kentucky, United States

Ratings

Category	Moody's Rating
Outlook	Stable
Issuer Rating	A2
Senior Secured Shelf	(P)A1
Ult Parent: E.ON AG	
Outlook	Stable
Bkd Sr Unsec Bank Credit Facility -Dom Curr	A2
Senior Unsecured -Dom Curr	A2
Commercial Paper -Dom Curr	P-1
Parent: E. ON U.S. LLC	
Outlook	Stable
Issuer Rating	A3

Contacts

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Opinion

Company Profile

Kentucky Utilities (KU) is a regulated public utility engaged in the generation, transmission and distribution of electricity. It provides electricity to approximately 506,000 customers in 77 counties in central, southeastern and western Kentucky and to approximately 30,000 customers in 5 counties in southwestern Virginia. KU's coal-fired electric generating plants produce most of its electricity. In Virginia, KU operates under the name Old Dominion Power Company.

KU is a wholly-owned subsidiary of E.ON U.S. LLC (A3 Issuer Rating). E.ON U.S. is an indirect wholly-owned subsidiary of E.ON AG (A2 senior unsecured). KU's affiliate Louisville Gas and Electric Company (LG&E: A2 Issuer Rating), is a regulated public utility also operating in Kentucky. Although LG&E and KU are separate legal entities, they are operated as a single, fully integrated system and provide the majority of the consolidated earnings and cash flow of E.ON U.S. LLC.

For the twelve months ended December 31, 2007, KU reported approximately $1.3 billion in revenue and $3.8 billion of assets.

KU's A2 Issuer Rating is based on the utility's strong financial profile, favorable cost positions and balanced regulatory environments. Core financial metrics (incorporating Moody's standard analytical adjustments) remain positioned within the ranges outlined in our Rating Methodology for A-rated utilities with medium business risk profiles.

STRONG FINANCIAL PROFILE AND CONSERVATIVE FINANCIAL POLICY

While down slightly from prior levels due to debt incurred to fund its environmental spending requirements and construction of its Trimble 2 generating facility, KU's key financial metrics remain consistent with its A2-rating category. Specifically, KU's ratio of FFO to debt and FFO interest coverage for the twelve months ended December 31, 2007 were approximately 24% and 6.5 times respectively.

Kentucky Utilities Co.

KU's rating also takes into account the size and financial flexibility of E.ON AG, who has not required a dividend payment since KU's capital spending requirements began to ramp up in 2005 (KU's capital spending has increased from $140 million in 2005 compared to $347 million in 2006 and $742 million in 2007). This trend is expected to continue over the near-term as KU nears completion of its capital spending program...

LARGE CAPITAL EXPENDITURE PROGRAM

The challenges ahead for KU include supporting the level of demand in its service territory and maintaining an adequate reserve margin in light of its aging fleet of coal-fired generating facilities. To that end, it has begun construction of a 750-megawatt Trimble 2 coal-fired generating station of which KU and LG&E own undivided 60.75% and 14.25% interests respectively. The remaining 25% interest is owned by regional municipal power entities. The generating station is expected to begin commercial operation in 2010 at a total cost to KU and LG&E of approximately $900 million.

CONSTRUCTIVE REGULATORY ENVIRONMENT

KU has an environmental cost recovery mechanism in its electric rates that allow for the recovery of environmental costs required to meet federal and state statutes. This is important given that KU and LG&E environmental capital spending will exceed $1 billion in aggregate. The utility also benefits from a fuel adjustment clause that eliminates supply cost volatility.

INTERCOMPANY FUNDING SUPPORT

Our credit analysis of KU considers intercompany funding support in the form of loans from other subsidiaries of E.ON AG. Intercompany debt accounted for more than 70% of KU's long-term debt at December 31, 2007. Due to the magnitude of on-going intercompany funding the ratings and outlook of KU could be affected if E.ON AG's senior unsecured rating were to be downgraded from its current level.

LIQUIDITY

KU's external sources for liquidity includes a $35 million of bilateral line of credit with a third party lender due 2012 and an intercompany money pool agreement where E.ON U.S. and/or LG&E make up to $400 million of funds available to KU. KU's borrowings under the intercompany money pool at March 31, 2008 were $50 million. There were no borrowings under the bilateral line of credit.

E.ON U.S. maintains a revolving credit facility totaling $311 million at March 31, 2008 with an affiliated company to ensure funding availability for the money pool.

Rating Outlook

The stable rating outlook reflects Moody's expectation that KU will continue to show strong fundamentals.

What Could Change the Rating - Up

In light of KU's sizeable expenditure program limited prospects exist for the rating to be upgraded over the next several years. Longer-term, core financial metrics would need to improve considerably, such as FFO to debt greater than 35%, for Moody's to consider an upgrade.

What Could Change the Rating - Down

Moody's would consider a rating downgrade if E. ON AG's senior unsecured rating was downgraded from its current level or significant changes were made to the environmental cost recovery mechanism.

Moody's Investors Service

Global Credit Research
Credit Opinion
1 MAY 2009

Credit Opinion: Kentucky Utilities Co.

Kentucky Utilities Co.

Lexington, Kentucky, United States

Ratings

Category	Moody's Rating
Outlook	Stable
Issuer Rating	A2
Senior Secured Shelf	(P)A1
Ult Parent: E.ON AG	
Outlook	Stable
Bkd Sr Unsec Bank Credit Facility -Dom Curr	A2
Senior Unsecured -Dom Curr	A2
Commercial Paper	P-1
Parent: E. ON U.S. LLC	
Outlook	Stable
Issuer Rating	A3

Contacts

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Opinion

Rating Drivers

E.ON AG ownership strengthens utility's financial position

Regulatory compact allows for the timely recovery of costs

Maintenance of an adequate reserve margin in light of its aging fleet of coal-fired generating facilities

Ability to manage a successful outcome for a rate case that is expected to be filed near when the Trimble 2 coal plant enters commercial operation

Corporate Profile

Kentucky Utilities (KU) is a regulated public utility engaged in the generation, transmission and distribution of electricity. It provides electricity to approximately 508,000 customers in 77 counties in central, southeastern and western Kentucky and to approximately 30,000 customers in 5 counties in southwestern Virginia. KU's coal-fired electric generating plants produce most of its electricity. In Virginia, KU operates under the name Old Dominion Power Company.

KU is a wholly-owned subsidiary of E.ON U.S. LLC (A3 Issuer Rating). E.ON U.S. is an indirect wholly-owned subsidiary of E.ON AG (A2 senior unsecured). KU's affiliate Louisville Gas and Electric Company (LG&E: A2 Issuer Rating), is a regulated public utility also operating in Kentucky. Although LG&E and KU are separate legal entities, they are operated as a single, fully integrated system and provide the majority of the consolidated earnings and cash flow of E.ON U.S. LLC.

SUMMARY RATING RATIONALE

KU's historical financial metrics combined with regulatory supportiveness provided by the Kentucky Public Service Commission and its ability to recover costs in a timely manner are, in Moody's view, indicative of a senior unsecured credit rating in the strong-Baa1 to weak-A3 range. KU, however, receives a one-to-two notch rating lift from its ownership by E.ON AG. Specifically, E.ON AG's size, scale and credit profile has historically provided KU considerable liquidity and financial flexibility primarily in the form of intercompany funding and a fairly liberal dividend policy that in our opinion considerably strengthens KU's financial position. The ratings and outlook of KU could be affected if E.ON AG's senior unsecured rating were to be downgraded from its current level.

STRONG FINANCIAL PROFILE AND CONSERVATIVE FINANCIAL POLICY

While down slightly from prior levels due primarily to intercompany debt incurred to fund its environmental spending requirements and construction of its Trimble 2 generating facility, KU's key financial metrics remain within a notch of its current rating. Specifically, KU's ratio of consolidated cash flow before changes in working capital (CFO pre W/C) to adjusted debt and CFO pre-W/C interest coverage for the twelve months ended December 31, 2008 were approximately 18% and 5.0 times, respectively.

KU's rating is notched upward to reflect the benefits associated with its ownership by E.ON AG. The benefits include intercompany funding support and a fairly liberal dividend policy that has not required KU to make any dividend payments since its capital spending requirements began to ramp up in 2005. Rather, KU received $220M of equity contributions during this timeframe in order to maintain an approximate 53% equity capitalization. Intercompany debt accounted for nearly 80% of KU's approximate $1.5 billion of long-term debt at December 31, 2008.

LARGE CAPITAL EXPENDITURE PROGRAM

The challenges ahead for KU include supporting the level of demand in its service territory and maintaining an adequate reserve margin in light of its aging fleet of coal-fired generating facilities. It is nearing construction completion of a 750-megawatt Trimble 2 coal-fired generating station of which KU and LG&E own undivided 60.75% and 14.25% interests, respectively. The remaining 25% interest is owned by regional municipal power entities. The generating station is expected to begin commercial operation in 2010 at a total cost to KU and LG&E of approximately $900 million.

KU's capital expenditures are expected to remain significant going forward, estimated at $1,325 million for the three year period ending December 31, 2011. Incremental intercompany funding is anticipated in order to finance in part these expenditures. KU's capital expenditures totaled $690 million during 2008 and $745 million in 2007.

CONSTRUCTIVE REGULATORY ENVIRONMENT

KU has an environmental cost recovery mechanism in its electric rates that allow for the recovery of environmental costs, including a 10.63% return on equity. This is an important factor given that KU and LG&E's combined environmental capital spending will exceed $1 billion [$778 million from '09 to `11] in aggregate. The utilities also benefit from a fuel adjustment clause that eliminates supply cost volatility.

On February 5, 2009, the Kentucky Public Service Commission approved a settlement in KU and LG&E's electric and gas base rate proceedings. Specifically, the February settlement resulted in an approximate $9 million reduction in KU's electric rates. The reduction in electric rates, however, is offset by the VDT surcredit that terminated in August 2008 and the termination of a merger surcredit that terminated with the implementation of the new rates. The termination of the VDT and merger surcredit results in an approximate $21 million increase in revenues, and when balanced with the approved rate settlement, electric rates are expected to increase by approximately $12M.

In January 2009, a significant winter ice storm passed through KU's service territory causing approximately 199,000 customer outages, followed closely by a severe wind storm in February 2009, causing approximately 44,000 customer outages. KU currently estimates $66 million of incurred expenses and $28 million of capital expenditures related to the restoration following the two storms. Historically, the KPSC has allowed the utilities to recognize these types of storm costs as a regulatory asset and providing recovery in future rate cases.

We expect KU to file another rate case in 2010 when the Trimble 2 coal plant enters commercial operation. The requested revenue increase for this case is expected to be larger than it was in the recently settled case.

LIQUIDITY

KU's external sources for liquidity includes a $35 million bilateral line of credit with a third party lender due 2012 and an intercompany money pool agreement where E.ON U.S. and/or LG&E make up to $400 million of funds available to KU. KU's borrowing under the intercompany money pool at December 31, 2008 was $16 million. There were no borrowings under the bilateral line of credit.

E.ON U.S. maintains revolving credit facilities totaling $313 million at December 31, 2008 with an affiliated company to ensure funding availability for the money pool.

Rating Outlook

The stable rating outlook reflects Moody's expectation that KU will continue to show strong fundamentals and that intercompany funding support will continue to be provided by E.ON AG.

What Could Change the Rating - Up

In light of KU's sizeable expenditure program, limited prospects exist for the rating to be upgraded over the next several years. Longer-term, core financial metrics would need to improve considerably, such as CFO pre W/C to adjusted debt greater than 27%, for Moody's to consider an upgrade.

What Could Change the Rating - Down

Moody's would consider a rating downgrade if E. ON AG's senior unsecured rating was downgraded from its current A2 level, if intercompany funding support was discontinued or significant changes were made to the environmental cost recovery mechanism.

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INVESTORS SERVICE

7 World Trade Center
250 Greenwich Street
New York, NY 10007
www.moodys.com

April 27, 2011

Mr. Dan Arbough
Treasurer
Kentucky Utilities
One Quality Street
Lexington, Kentucky 40507

County of Mercer, Kentucky
Solid Waste Disposal Facility Revenue Bonds, 2000 Series A
(Kentucky Utilities Company Project)

County of Carroll, Kentucky
Environmental Facilities Revenue Bonds, 2004 Series A
(Kentucky Utilities Company Project)

County of Carroll, Kentucky
Environmental Facilities Revenue Refunding Bonds, 2006 Series B
(Kentucky Utilities Company Project)

County of Carroll, Kentucky
Environmental Facilities Revenue Bonds, 2008 Series A
(Kentucky Utilities Company Project)

Dear Mr. Arbough:

At your request, Moody's Investors Service has reviewed the draft documents submitted to us in connection with the letter of credit substitutions of the above-captioned issues.

On the substitution date, currently scheduled for May 2, 2011, Moody's Investors Service will affirm the Aa1/VMIG 1 rating on each series of bonds.

The long-term joint support ratings are based on the substitute letters of credit provided by Sumitomo Mitsui Banking Corporation (the Bank), the rating of Kentucky Utilities, and the default dependence level between the Bank and Kentucky Utilities. Any change in the long-term rating of either entity or any change in the default dependence between the two, as determined by Moody's, will result in the long-term ratings being reevaluated. The short-term rating of each series is based on the letter of credit and will be changed whenever the Bank's short-term rating is changed. The rating of each series expires upon the earliest to occur of: (i) the stated expiration date of the applicable letter of credit;; (ii) the mandatory tender in connection with such expiration; (iii) conversion of the bonds of such series to a rate mode other than the weekly rate; or (iv) any earlier termination of the letter of credit.

In assigning our rating, we relied upon the draft documents provided to us. In order to maintain the rating, we must be provided with a set of executed documents as soon as practicable. Additionally, in connection

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with the surveillance of our rating, please e-mail information concerning letter of credit substitutions, letter of credit extensions, redemptions, tenders or any amendments to the governing documents to MSPGSurveillance@moodys.com or faxed to Moody's Municipal Structured Products Surveillance Group at (212) 553-1066.

If you have any questions regarding this transaction, please call me directly at (212) 553-7436.

Sincerely,

Robert P. Azrin

Robert P. Azrin
Vice- President/Senior Analyst

MOODY'S
INVESTORS SERVICE

Credit Opinion: Kentucky Utilities Co.

Global Credit Research - 16 Nov 2011

Lexington, Kentucky, United States

Ratings

Category	Moody's Rating
Outlook	Stable
Issuer Rating	Baa1
First Mortgage Bonds	A2
Sr Unsec Bank Credit Facility	Baa1
Ult Parent: PPL Corporation	
Outlook	Stable
Issuer Rating	Baa3
Parent: LG&E and KU Energy LLC	
Outlook	Stable
Issuer Rating	Baa2
Senior Unsecured	Baa2

Contacts

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William L. Hess/New York City	212.553.3837

Opinion

Rating Drivers

Regulatory environment provides for timely recovery of costs

Constructive outcome of most recent rate case and recently announced settlement fortifies credit supportive regulatory environment

Elevated capital expenditure spending program due to environmental initiatives

Lack of fuel diversity relating to its electric generating portfolio

Healthy and stable financial metrics

PPL's acquisition strategy has reduced family-wide business risk

Corporate Profile

Kentucky Utilities (KU: Baa1 Issuer Rating) is a regulated public utility engaged in the generation, transmission and distribution of electricity. KU provides electric service to approximately 516,000 customers in Kentucky and 30,000 customers in Virginia. Its service territory covers approximately 6,600 square miles. KU's coal-fired electric generating plants produce most of its electricity.

KU is a wholly-owned subsidiary of LG&E and KU Energy LLC (LKE: Baa2 Issuer Rating). KU and its affiliate, Louisville Gas and Electric Company (LG&E: Baa1 Issuer Rating), are separate operating entities of LKE, wholly owned by PPL Corporation (PPL: Baa3 Issuer Rating), a diversified energy holding company headquartered in Allentown, PA.

SUMMARY RATING RATIONALE

KU's Baa1 Issuer Rating reflects its sound financial performance and the credit supportive regulatory environment offset in part by a lack of fuel diversity relating to its electric generating portfolio, a modestly sized service territory, and a large capital expenditure program.

DETAILED RATING CONSIDERATIONS

SUPPORTIVE REGULATION PROVIDES FOR TIMELY COST RECOVERY

In July 2010, the Kentucky Public Service Commission (KPSC) issued an order relating to KU and LG&E's January 2010 rate case filings with new rates effective August 1, 2010. Specifically, KU was granted a $98 million electric rate increase, or 73% of its requested $135 million increase. LG&E was granted a $74 million electric rate increase, or 78% of its requested $95 million increase and a $17 million gas rate increase (74% of the $23 million requested). The KPSC order was based on an ROE range of 10.0 to 10.5%.

Moody's considers the regulatory authorities in Kentucky as being generally supportive to long term credit quality and notes that the KPSC has approved various tracking mechanisms that provide for timely cost recovery outside of a rate case. As part of a settlement agreement relating to the PPL's acquisition and approved by the KPSC, KU and LG&E agreed to a moratorium on any base rate increase until January 2013. As such, the utilities may be challenged to control their respective operating expenses during this period; however, approved tracking mechanisms in KU's electric rates include a Fuel Adjustment Clause (FAC), an Environmental Cost Recovery Surcharge (ECR) and a Demand-Side Management Cost Recovery Mechanism (DSM) should help in managing the operating margin during the interim period. The FAC is adjusted monthly and allows the company to adjust rates for the difference between the fuel cost component of base rates and the actual fuel costs. Additional charges (or credits) to customers occur if actual fuel costs exceed (or are below) the embedded cost component. The KPSC requires public hearings at six-month intervals to examine past fuel adjustments.

The ECR provides KU recovery of costs associated with complying with the Clean Air Act as Amended and any other environmental requirement which applies to coal combustion wastes and byproducts. This is an important factor given that KU and LG&E continue to invest significantly in emission control devices. Proceedings are conducted every six-months to evaluate the operation of the ECR. LG&E's rates also include a DSM provision which includes a rate mechanism that provides for concurrent recovery of DSM costs and provides an incentive for implementing DSM programs.

In Virginia, KU filed an application in April 2011 with the Virginia Commission requesting an annual increase in base rates for its Virginia customers of $9.3 million or approximately 14%, which is equivalent to an 11% return on equity. In September 2011, a settlement stipulation was reached between KU and the Virginia Commission staff. In October 2011, the Virginia Commission approved the stipulation with two modifications that were accepted by KU. The approved annual revenue increase is $7 million with new base rates effective November 1, 2011.

SETTLEMENT WITH INTERVENORS LARGELY ADDRESSES MAJOR ENVIRONMENTAL OVERHANG

In June 2011, KU and LG&E filed a new ECR to request approval to install environmental upgrades for their coal-fired plants along with the recovery of the expected $2.5 billion in costs. The applications sought approval to install environmental upgrades at certain of the plants during 2012-2016, including recovery through the ECR surcharge mechanism of approximate capital costs of $1.1 billion at KU and $1.4 billion at LG&E, plus operating expenses. On November 9, 2011, KU and LG&E entered into a settlement agreement with the interveners in their proceedings before the KPSC relating to their proposed ECR plans. The settlement provides that the parties will favorably recommend to the KPSC for approval, or not oppose, approximately $2.25 billion of the $2.5 billion in capital projects for which approval was originally requested, constituting approximately $883 million and $1.4 billion at KU and LG&E, respectively. Under the settlement, the $217 million in remaining capital costs are deferred and may be the subject of future regulatory proceedings for approval to construct the deferred projects and recover the associated costs through the ECR surcharge mechanism. The deferred projects relate to certain proposed environmental upgrades at KU's E.W. Brown plant, for which KU retains the right to operate and dispatch in accordance with applicable environmental standards. The settlement confirms an existing 10.63% authorized return on equity for projects remaining from earlier ECR plans and provides for an authorized return on equity of 10.10% for this filing.

As part of the settlement agreement, provisions exist requiring both companies to increase funding levels for certain heating assistance programs for low-income customers. The settlement remains subject to approval by the KPSC which is expected in December 2011.

In light of the outcome of the company's 2010 rate case, the settlement reached with parties on the ECR proposal, and the menu of recovery mechanisms that exist in the state, we view the regulatory environment at the upper end of the Baa rating factor for Factor 1: Regulatory Framework within Moody's methodology, and at the lower end of the A category for Factor 2: Ability to Recover Costs and Earn Returns.

COAL-FIRED BASELOAD GENERATION, WHILE COST COMPETITIVE, EXPOSED TO FUTURE ENVIRONMENTAL REGULATION OR POLICES

Coal units account for approximately 60% of KU's owned capacity, and 98% of its generation. This significant amount of coal-fired generation exposes KU to impending legislative or regulatory policies aimed at reducing CO2 and other emissions. Our rating incorporates the view that this concentration and future exposure risk is mitigated by the ability to recover such costs under the ECR surcharge.

Moody's acknowledges that a core aspect of this concentration risk is the fact it continues to provide the modestly sized service territory with reliable, low-cost electric generation sourced in large measure by regional fuel sources.

That being said, some of LG&E's coal fleet will be shut down following existing and pending EPA regulations, which mandates reductions in NOx and SO2 emissions starting in 2012. On September 15th, LG&E and KU filed a certificate of public convenience (CPCN) for the construction of a 640-MW natural gas combined cycle facility at the Cane Run coal site. LG&E intends to shut down all three coal units at Cane Run by 2015. The companies filed their application with Louisville Metro Air Pollution Control District in June 2011 and expect the KPSC to rule on the CPCN by April 2012. Once approved, construction at Cane Run is expected to begin in 2012 and be completed by 2016, replacing all coal generation with natural gas.

Moody's observes that the EPA's revised National Ambient Air Quality Standards will further restrict NOx and SO2 emissions beginning in 2016 and 2017, which could further impact LG&E's and KU's coal generating units.

In light of this fuel concentration risk, we score KU a "B" for Factor 3: Sub-factor 2 , Generation and Fuel Diversification to reflect the lack of fuel diversification as substantially all its current generation is produced from coal-fired power plants.

EXPANDING CAPITAL EXPENDITURE PROGRAM

Capital expenditures for KU are expected to be $330 million for 2011, of which $139 million is earmarked for environmental related requirements. Capital expenditures over the next four years are expected to substantially increase to $657 million in 2012, $787 million in 2013, $789 million in 2014, and $679 million in 2015. Environmental capital expenditures represent the primary reason for the increase with such costs accounting for $440 million in 2012, $554 million in 2013, $564 million in 2014, and $428 million in 2015. The majority of these environmental capital costs are expected to be recovered under the company's ECR should the proposed settlement be approved by the KPSC.

HEALTHY FINANCIAL PROFILE

KU's financial metrics have remained relatively healthy, with a ratio of consolidated cash flow before changes in working capital (CFO pre W/C) to debt averaging nearly 19%, retained cash flow to debt averaging a healthy 18% and CFO pre-W/C interest coverage averaging 5.2 times over the past three years. While these standalone credit metrics strongly position KU in the current rating category, the rating also considers the incremental debt that exists at holding company LKE as well as the likely strain on the balance sheet given the substantial size of future capital spending. An important rating consideration will be the manner in which future capital investment is financed to include, when necessary, anticipated issuance of PPL common equity to help finance the very large amount of planned capital investment.

PPL'S ACQUISITIONS HAVE TRANSFORMED STRATEGY, LOWERING OVERALL BUSINESS RISK

PPL's acquisitions of LKE, which closed in November 2010, was followed in April 2011, with the acquisition of the Central Networks electricity distribution business (since renamed PPL WEM Holdings (PPL WEM, rated Baa3), for £3.6 billion ($5.7 billion) in cash, inclusive of certain permitted pre-closing adjustments, plus £500 million ($800 million) of existing public debt assumed through consolidation.

Completion of these two acquisitions have reduced PPL's overall business risk, making it less commodity sensitive, which we believe indirectly benefits the operations at KU. We estimate that at least 70% of consolidated results going forward will be provided by predictable, rate regulated businesses from three different jurisdictions, two of which have, in our opinion, an above-average regulatory profile. Together, we estimate that the UK and Kentucky operations alone will provide about 55% of the company's earnings and cash flow in most years.

Liquidity Profile

KU maintains a $400 million senior unsecured revolving credit facility, that expires in October 2016, of which the entire $400 million is available at September 30, 2011. The facility contains a financial covenant requiring KU's debt to total capitalization not to exceed 70%, as calculated in accordance with the credit facility. In addition, in April 2011, KU entered into an additional $198 letter of credit facility expiring in April 2014, which KU uses to support outstanding tax-exempt bonds. Additionally, KU participates in an intercompany money pool agreement whereby LKE and/or LG&E can make available to KU excess funds (up to $400 million) at market-based rates. At September 30, 2011, there was no balance outstanding under the money pool. As capital investment increases, Moody's anticipates KU being a more active short-term borrower with an eye towards permanently funding the short-term debt with periodic issuances of long-term debt and equity contributions.

At September 30, 2011, KU's tax-exempt revenue bonds that are in the form of auction rate securities and total $96 million continue to experience failed auctions. Therefore, the interest rate continues to be set by a formula pursuant to the relevant indentures. For the nine months ended September 30, 2011, the weighted-average rate on KU's auction rate bonds in total was 0.29%.

Rating Outlook

The stable outlook considers the continued above-average performance in KU's financial metrics over the near-term driven in part by credit supportive regulatory outcomes including a strong suite of recovery mechanisms. The stable outlook further considers our belief that the sizeable capital investment program will be financed in a credit benign manner to include the issuance of equity when needed.

What Could Change the Rating - Up

In light of a very large multi-year capital spending program, prospects for an upgrade may be challenging in the near-term. However, should the proposed ECR settlement be adopted and KU finances its material capital expenditures in a conservative fashion, KU's rating could be upgraded, particularly if its ratios of CFO pre-WC to debt and retained cash flow to debt exceed 22% and 17%, respectively, on a sustained basis.

What Could Change the Rating - Down

KU's ratings could be downgraded should the company encounter unexpected problems obtaining ECR cost recovery or if unanticipated changes were made to the regulatory compact that currently provides for timely recovery of costs leading to the company's ratios of CFO pre-WC to debt and retained cash flow to debt dropping below 16% and 11%, respectively.

Other Considerations

Moody's evaluates KU's consolidated financial performance relative to the Regulated Electric and Gas Utilities rating methodology published in August 2009 and as depicted in the grid below, KU's indicated rating under the grid is Baa1 on both a historical and projected basis consistent with KU's existing Baa1 Issuer Rating.

Rating Factors

Kentucky Utilities Co.

Regulated Electric and Gas Utilities Industry [1][2]	Current 12/31/2010		Moody's 12-18 month Forward View* As of June 2011	
Factor 1: Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Regulatory Framework		Baa		Baa
Factor 2: Ability To Recover Costs And Earn Returns (25%)				
a) Ability To Recover Costs And Earn Returns		A		A
Factor 3: Diversification (10%)				
a) Market Position (5%)		Baa		Baa
b) Generation and Fuel Diversity (5%)		Ba		Ba
Factor 4: Financial Strength, Liquidity And Key Financial Metrics (40%)				
a) Liquidity (10%)		A		A

b) CFO pre-WC + Interest/ Interest (3 Year Avg) (7.5%)	5.2x	A	5-6.5x	A
c) CFO pre-WC / Debt (3 Year Avg) (7.5%)	18.7%	Baa	18-22%	Baa
d) CFO pre-WC - Dividends / Debt (3 Year Avg) (7.5%)	17.9%	A	14-18%	A
e) Debt/Capitalization (3 Year Avg) (7.5%)	43.6%	A	40-45%	A
Rating:				
a) Indicated Rating from Grid		Baa1		Baa1
b) Actual Rating Assigned		Baa1		Baa1

* THIS REPRESENTS MOODY'S FORWARD VIEW; NOT THE VIEW OF THE ISSUER; AND UNLESS NOTED IN THE TEXT DOES NOT INCORPORATE SIGNIFICANT ACQUISITIONS OR DIVESTITURES

[1] All ratios are calculated using Moody's Standard Adjustments. [2] As of 12/31/2010(L); Source: Moody's Financial Metrics

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rendered by it fees ranging from $1,500 to approximately $2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Shareholder Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

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Notwithstanding the foregoing, credit ratings assigned on and after October 1, 2010 by Moody's Japan K.K. ("MJKK") are MJKK's current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities. In such a case, "MIS" in the foregoing statements shall be deemed to be replaced with "MJKK". MJKK is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO.

This credit rating is an opinion as to the creditworthiness or a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be dangerous for retail investors to make any investment decision based on this credit rating. If in doubt you should contact your financial or other professional adviser.

MOODY'S
INVESTORS SERVICE

Rating Action: Moody's assigns Prime-2 short-term rating to KU; affirms existing long term ratings

Global Credit Research - 05 Mar 2012

$250 million commercial paper program

New York, March 05, 2012 -- Moody's Investors Service assigned a Prime-2 short-term rating to Kentucky Utilities Company's (KU: Baa1 Issuer Rating) newly established $250 million commercial paper program. Separately, Moody's affirmed KU's long-term ratings of A2, First Mortgage Bonds and Baa1 Issuer Rating and bank loan rating. The rating outlook remains stable.

RATINGS RATIONALE

KU's Prime-2 rating and the affirmation of the company's long-term ratings reflects its sound financial performance and the credit supportive regulatory environment in which it operates, mitigated by the lack of fuel diversity relating to its electric generating portfolio, a modestly sized service territory, and a large capital expenditure program. The rating assignment and affirmation acknowledges the December 2011 unanimous approval by the Kentucky Public Service Commission of a settlement with KU and affiliate Louisville Gas and Electric Company (LG&E: Baa1 Issuer Rating) concerning cost recovery under the state's Environmental Cost Recovery (ECR) mechanism.

KU's $250 million commercial paper program is supported by a $400 million syndicated credit facility that expires in October 2016. At December 31, 2011, KU had no outstanding borrowings under the facility revolver and a cash balance of $31 million. KU's credit facility has a limitation on debt to capitalization at 70% and the company is comfortably in compliance with this financial covenant. Same day availability exists under the facility and borrowings are not subject to any conditionality, including the existence of a material adverse change (MAC) clause. KU also participates in an intercompany money pool agreement with parent company LG&E and KU Energy LLC (LKE: Baa2 Senior Unsecured) and affiliate LG&E, whereby LKE and/or LG&E can make available to KU excess funds (up to $400 million) at market-based rates. At year-end 2011, there was no balance outstanding under the money pool. The next debt maturity at KU will occur on November 15, 2015 when $250 million of first mortgage bonds mature. Moody's views KU's liquidity as sufficient to support its planned commercial paper program.

Under the ECR mechanism, KU is permitted to recover the costs associated with environmental-related investments, and earn a cash return on the related construction work in progress. The ECR calls for KU to invest $896 million in environmental upgrades to meet recent EPA regulations, and earn an ROE of 10.1% on these investments. KU will install baghouses at the Ghent generating station and scrubbers on unit 3 at the Brown station. In addition, KU and LG&E will earn a 10.63% ROE on about $370-$400 million of capital investments relating to previously approved projects, and have agreed to fund certain state assistance programs.

The stable rating outlook recognizes the expanding capital spending program KU is undertaking to address environmental compliance mitigated by a credit supportive regulatory framework in the state. Furthermore, the outlook incorporates the low-risk business strategy implemented by the ultimate parent, PPL Corporation (PPL: Baa3 Issuer Rating), and our belief that KU's financing requirements, which are substantial will continue to be supported by an appropriate level of equity capital over the next several years in order to maintain its credit quality.

In light of the sizeable capital investment program, it is unlikely that KU would be upgraded in the near-term. Longer-term, a rating upgrade could follow if the ratio of cash flow (CFO pre-WC) to debt and retained cash flow to debt exceeds 25% and 17%, respectively, on a sustainable basis.

KU's ratings could be downgraded if changes were made to the regulatory compact such the ratios of cash flow to debt dropped below 16%.

KU is a subsidiary of parent company of LKE, wholly owned by PPL, a diversified energy holding company headquartered in Allentown, PA.

The principal methodology used in this rating was Regulated Electric and Gas Utilities published in August 2009. Please see the Credit Policy page on www.moodys.com for a copy of this methodology.

REGULATORY DISCLOSURES

Although this credit rating has been issued in a non-EU country which has not been recognized as endorsable at this date, this credit rating is deemed "EU qualified by extension" and may still be used by financial institutions for regulatory purposes until 30 April 2012. Further information on the EU endorsement status and on the Moody's office that has issued a particular Credit

Rating is available on www.moodys.com.

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STANDARD &POOR'S

RATINGSDIRECT®

February 28, 2008

Summary:
Kentucky Utilities Co.

Primary Credit Analyst:
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Summary:
Kentucky Utilities Co.

Credit Rating: BBB+/Stable/A-2

Rationale

The rating on Kentucky Utilities Co. is based primarily on parent E.ON U.S. LLC's credit profile. The E.ON U.S. rating reflects the credit characteristics of the two operating utilities in Kentucky -- Kentucky Utilities and Louisville Gas & Electric Co. (BBB+/Stable/--) -- and the company's focus on operating the fully integrated utilities. Implicit support from E.ON U.S.' ultimate parent, Germany-based E.ON AG (A/Stable/A-1), is still factored into the analysis, but it has become less important to the rating as the stand-alone credit quality of the U.S. subsidiaries has improved. E.ON AG has prominently expressed its support for E.ON U.S. and its intent to maintain its U.S. presence.

The company's excellent business risk profile is supported by low-risk, regulated, and financially sound electric operations; efficient generation facilities that allow for competitive rates; and a supportive regulatory environment. The company's electric operations benefit from a fuel adjustment mechanism and an environmental cost-recovery mechanism. Together, these mechanisms reduce exposure to changing environmental requirements, weather, and volatility in natural gas prices, all of which normally raise credit-related concerns. Lexington, Ky.-based Kentucky Utilities serves about 515,000 electric customers in 77 Kentucky counties and five counties in Virginia.

A large industrial customer base and coal-fired generation facilities that require large environmental expenditures detract from the business risk profile. E.ON U.S. has reached an agreement to exit its involvement with Big Rivers Electric Corp. and would significantly reduce its unregulated operations if the agreement is finalized as planned, following review by the Kentucky Public Service Commission. Currently, E.ON U.S. leases and operates four of Big River's power plants.

Short-term credit factors

The short-term rating on Kentucky Utilities is 'A-2', and reflects the company's corporate credit rating, stable cash flow generation, and adequate available liquidity.

Standard & Poor's Ratings Services expects consolidated capital spending to exceed cash flow from operations primarily because of significant environmental expenditures. The steady internal cash flow generated by E.ON U.S.' regulated operations will not be enough to meet these obligations, thus creating a reliance on external financing.

Such funding is expected to be concentrated at parent E.ON AG, which should also provide support in the case of short-term liquidity needs. (A cross-default clause in E.ON's credit facility protects E.ON U.S., as long as it is a material subsidiary.) E.ON augments liquidity. An E.ON-related entity provides a $150 million credit facility to E.ON U.S., to ensure funding availability for its money pool.

Outlook

The stable outlook on E.ON U.S. is based on continued support from E.ON and a corporate strategy that maintains a primarily low-risk, utility-based business risk profile. The ratings and outlook on E.ON U.S. and its subsidiaries are linked to those on E.ON. The importance of E.ON AG's U.S. operations to its group strategy remains a factor in the rating on E.ON U.S. Any change in the parent's attitude toward its U.S. holdings or in Standard & Poor's perception of the parent's support could lead to a rating change. Completion of the Big Rivers transaction would lessen the company's exposure to unregulated activities and could lead to an improved business risk profile and a higher rating.

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August 20, 2008

Summary:
Kentucky Utilities Co.

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Summary:
Kentucky Utilities Co.

Credit Rating: BBB+/Stable/A-2

Rationale

The rating on Kentucky Utilities Co. (KU) is based primarily on parent E.ON U.S. LLC's credit profile. The E.ON U.S. rating reflects the credit characteristics of the two operating utilities in Kentucky--KU and Louisville Gas & Electric Co. (BBB+/Stable/A-2)--and the company's focus on operating the fully integrated utilities. Implicit support from E.ON U.S.'s ultimate parent, Germany-based E.ON AG (A/Stable/A-1), is still factored into the analysis, but it has become less important to the rating as the stand-alone credit quality of the U.S. subsidiaries has improved. E.ON AG has prominently expressed its support for E.ON U.S. and its intent to maintain its U.S. presence.

The excellent business risk profile is supported by low-risk, regulated, and financially sound gas distribution and electric operations, efficient generation facilities that allow for competitive rates, and a supportive regulatory environment. The company's electric operations benefit from a fuel adjustment mechanism and an environmental cost-recovery mechanism, while the company's smaller gas operations benefit from a weather normalization clause and a gas cost adjustment mechanism. These mechanisms reduce exposure to changing environmental requirements, weather, and volatility in natural gas prices.

A large industrial customer base and coal-fired generation facilities that require large environmental expenditures detract from the business risk profile. E.ON U.S. has reached an agreement to exit its involvement with Big Rivers Electric Corp. and would significantly reduce its unregulated operations if the agreement is finalized as planned, following review by the Kentucky Public Service Commission. Currently, E.ON U.S. leases and operates four of Big River's power plants.

Liquidity

Liquidity needs are managed primarily by E.ON U.S. Standard & Poor's Ratings Services expects consolidated capital spending to exceed cash flow from operations, primarily because of significant environmental expenditures. The steady internal cash flow generated by E.ON U.S.'s regulated operations will not be enough to meet these obligations, thus creating a reliance on external financing.

Such funding is expected to be concentrated at parent E.ON AG, which should also provide support in the case of short-term liquidity needs. (A cross-default clause in E.ON's credit facility covers E.ON U.S., as long as it is a material subsidiary.) E.ON augments liquidity. An E.ON-related entity provides a $150 million credit facility to E.ON U.S., to ensure funding availability for its money pool.

Outlook

The stable outlook on E.ON U.S. and subsidiaries is based on continued support from E.ON and a corporate strategy that maintains a primarily low-risk, utility-based business risk profile. The ratings and outlook on E.ON U.S. and its subsidiaries are loosely linked to those on E.ON. The importance of E.ON AG's U.S. operations to its group strategy remains a factor in the rating on E.ON U.S. Any change in the parent's attitude toward its U.S.

holdings or in Standard & Poor's perception of the parent's support could lead to a rating revision. Completion of the Big Rivers transaction would lessen the company's exposure to unregulated activities and could lead to an improved business risk profile and a higher rating.

STANDARD
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RATINGSDIRECT®

April 3, 2009

Kentucky Utilities Co.

Primary Credit Analyst:
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Kentucky Utilities Co.

Major Rating Factors

Corporate Credit Rating

BBB+/Stable/A-2

Strengths:

- The implicit credit support provided by ultimate parent E.ON AG;
- Stable and relatively predictable utility operations and associated cash flows;
- Constructive regulatory environment in Kentucky;
- Competitive rates; and
- Consistently high customer satisfaction ratings in region, which lessens regulatory risk.

Weaknesses:

- Little fuel diversity, virtually all coal-fired; and
- Heavy construction program to meet environmental requirements and new generating capacity.

Rationale

The ratings on Kentucky Utilities Co. (KU) are based primarily on parent E.ON U.S. LLC's credit profile. The ratings on E.ON U.S. are based primarily on the credit profile of its two operating utilities in Kentucky--Louisville Gas & Electric Co. (BBB+/Stable/--) and KU--and the company's focus on operating the fully integrated utilities. Implicit support from ultimate parent E.ON AG (A/Stable/A-1) is factored into the ratings analysis.

E.ON U.S.'s consolidated business risk profile is viewed as 'excellent' (business risk profiles are categorized as 'excellent' to 'vulnerable') and its financial profile is considered to be aggressive (financial profiles are ranked from 'minimal' to 'highly leveraged'). The company's business risk profile is supported by relatively low-risk, regulated vertically integrated electric and natural gas distribution operations, a stable and credit supportive regulatory environment in Kentucky, efficient generation facilities that allow for competitive rates, consistently high customer satisfaction rankings, and effective cost containment. The company's electric operations benefit from a fuel and purchased power (energy only) adjustment clause, an environmental cost recovery surcharge and other timely cost recovery mechanisms, while its smaller gas operations benefit from a gas supply clause. Construction outlays diminish significantly in 2010 following completion of the 750 MW Trimble County Unit 2 coal-fired facility, in which the company has a 75% ownership share. However, beginning in 2011, capital expenditures begin to accelerate for ongoing environmental requirements and other project betterments.

The pending termination of a power plant lease arrangement between E.ON U.S.'s subsidiary Western Kentucky Energy Corp. and Big Rivers Electric Corporation, if finalized as planned, would enhance the company's business risk profile within the "excellent category." In this regard, on March 13, 2009, E.ON U.S. accepted the Kentucky Public Service Commission's (KPSC) condition to pay an additional $60.9 million to unwind this commitment. While unwinding of the contract requires a large one-time cash payment of $666 million, it will significantly reduce dependence on riskier unregulated activities.

E.ON U.S.'s consolidated financial metrics have declined somewhat owing primarily to its heavy construction program. However, with well controlled operating and maintenance expenses, continued efficient operations, expectations for modest load growth, and ongoing responsive regulatory treatment by the (KPSC) and credit supportive actions by management, bondholder protection parameters should strengthen to levels more commensurate with the current rating level.

Liquidity

Standard & Poor's Ratings Services expects consolidated capital spending to exceed cash flow from operations primarily because of significant environmental expenditures and outlays to complete the Trimble County Unit 2 station. The steady internal cash flow generated by E.ON U.S.'s regulated operations will not be enough to meet these obligations, thus creating a reliance on external financing.

Such funding is expected to be concentrated at parent E.ON AG, which will also provide support in the case of short-term liquidity needs. (A cross-default clause in E.ON's credit facility protects E.ON U.S. as long as it is a "material subsidiary".) An E.ON-related entity provides a credit facility to E.ON U.S. to ensure funding availability for its money pool.

Outlook

The stable outlook on KU mirrors that of parent E.ON U.S. and is based on continued support from E.ON AG and a corporate strategy that maintains a primarily low-risk, utility-based business risk profile. The ratings and outlook on E.ON U.S. and its subsidiaries are loosely linked to those on E.ON AG. However, the significance of E.ON's U.S. operations to its group strategy remains a factor in the ratings on E.ON U.S. Any change in the parent's attitude toward its U.S. holdings or in Standard & Poor's perception of the parent's support could lead to a rating change.

Table 1.

Kentucky Utilities Co. -- Financial Summary*

Industry Sector: Electric	--Fiscal year ended Dec. 31--				
	2008	2007	2006	2005	2004
Rating history	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2
(Mil. $)					
Revenues	1,404.0	1,273.0	1,210.0	1,206.6	995.4
Net income from continuing operations	158.0	167.0	152.0	112.1	133.5
Funds from operations (FFO)	308.1	323.9	249.6	234.4	213.3
Capital expenditures	703.9	745.3	349.5	140.0	156.4
Cash and short-term investments	12.0	0	6.0	6.7	4.6
Debt	1,828.4	1,465.5	1,146.9	1,061.8	976.1
Preferred stock	0	0	0	0	39.7
Equity	1,744.0	1,435.0	1,193.0	974.9	965.0
Debt and equity	3,572.4	2,900.5	2,339.9	2,036.7	1,941.0
Adjusted ratios					
EBIT interest coverage (x)	3.8	4.9	6.1	5.8	7.8
FFO int. cov. (x)	4.5	5.8	6.3	7.0	7.8
FFO/debt (%)	16.9	22.1	21.8	22.1	21.9
Discretionary cash flow/debt (%)	(22.1)	(29.5)	(11.0)	2.7	(1.1)

Table 1.

Kentucky Utilities Co. -- Financial Summary* (cont.)					
Net Cash Flow / Capex (%)	43.8	43.5	71.4	130.4	94.6
Debt/debt and equity (%)	51.2	50.5	49.0	52.1	50.3
Return on common equity (%)	9.9	12.7	13.7	11.1	14.1
Common dividend payout ratio (un-adj.) (%)	0	0	0	45.3	48.9

*Fully adjusted (including postretirement obligations).

Table 2.

Reconciliation Of Kentucky Utilities Co. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)*

--Fiscal year ended Dec. 31, 2008--

Kentucky Utilities Co. reported amounts

	Debt	Operating income (before D&A)	Operating income (before D&A)	Operating income (after D&A)	Interest expense	Cash flow from operations	Cash flow from operations	Capital expenditures
Reported	1,548.0	395.0	395.0	259.0	72.0	297.0	297.0	690.0
Standard & Poor's adjustments								
Operating leases	26.5	7.5	1.2	1.2	1.2	6.3	6.3	13.9
Postretirement benefit obligations	120.9	3.0	3.0	3.0	1.0	(2.0)	(2.0)	--
Power purchase agreements	86.1	4.4	4.4	4.4	4.4	--	--	--
Asset retirement obligations	20.8	2.0	2.0	2.0	2.0	(1.3)	(1.3)	--
Reclassification of nonoperating income (expenses)	--	--	--	39.0	--	--	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	8.0	--
Other	26.1	--	--	--	1.6	--	--	--
Total adjustments	280.4	16.9	10.5	49.5	10.1	3.1	11.1	13.9

Standard & Poor's adjusted amounts

	Debt	Operating income (before D&A)	EBITDA	EBIT	Interest expense	Cash flow from operations	Funds from operations	Capital expenditures
Adjusted	1,828.4	411.9	405.5	308.5	82.1	300.1	308.1	703.9

*Kentucky Utilities Co. reported amounts shown are taken from the company's financial statements but might include adjustments made by data providers or reclassifications made by Standard & Poor's analysts. Please note that two reported amounts (operating income before D&A and cash flow from operations) are used to derive more than one Standard & Poor's-adjusted amount (operating income before D&A and EBITDA, and cash flow from operations and funds from operations, respectively). Consequently, the first section in some tables may feature duplicate descriptions and amounts.

Ratings Detail (As Of April 3, 2009)*

Kentucky Utilities Co.	
Corporate Credit Rating	BBB+/Stable/A-2
Senior Unsecured (1 Issue)	A
Senior Unsecured (0 Issues)	A/Negative
Senior Unsecured (4 Issues)	BBB+/A-2

Ratings Detail (As Of April 3, 2009) (cont.)

Corporate Credit Ratings History	
27-Mar-2009	BBB+/Stable/A-2
25-Mar-2009	BBB+/Stable/NR
04-Aug-2003	BBB+/Stable/A-2
Financial Risk Profile	Aggressive (Consolidated financial risk profile of parent E.ON U.S.)
Related Entities	
Central Networks East PLC	
Issuer Credit Rating	A/Stable/A-1
E.ON AG	
Issuer Credit Rating	A/Stable/A-1
Commercial Paper	A-1
Senior Unsecured (42 Issues)	A
Short-Term Debt (1 Issue)	A-1
E.ON Energy Ltd.	
Issuer Credit Rating	A/Stable/A-1
E.ON U.K. PLC	
Issuer Credit Rating	A/Stable/A-1
Senior Unsecured (2 Issues)	A
E.ON U.S. LLC	
Issuer Credit Rating	BBB+/Stable/--
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB+/Stable/NR
Senior Unsecured (5 Issues)	A
Senior Unsecured (3 Issues)	BBB+
Senior Unsecured (4 Issues)	BBB+/A-2
Powergen (East Midlands) Investments	
Issuer Credit Rating	A/Stable/--

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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August 18, 2009

Summary:
Kentucky Utilities Co.

Primary Credit Analyst:
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Summary:
Kentucky Utilities Co.

Credit Rating: BBB+/Stable/A-2

Rationale

The ratings on Kentucky Utilities Co. (KU) are based primarily on parent E.ON U.S. LLC's credit profile. The ratings on E.ON U.S. are based primarily on the credit profile of its two operating utilities in Kentucky--Louisville Gas & Electric Co. (BBB+/Stable/--) and KU--and the company's focus on operating the fully integrated utilities. Implicit support from ultimate parent E.ON AG (A/Stable/A-1) is factored into the ratings analysis.

E.ON U.S.'s consolidated business risk profile is viewed as 'excellent' (business risk profiles are categorized as 'excellent' to 'vulnerable') and its financial profile is considered to be 'aggressive' (financial profiles are ranked from 'minimal' to 'highly leveraged'). The company's business risk profile is supported by relatively low-risk, regulated vertically integrated electric and natural gas distribution operations, a stable and credit supportive regulatory environment in Kentucky, efficient generation facilities that allow for competitive rates, consistently high customer satisfaction rankings, and effective cost containment. The company's electric operations benefit from a fuel and purchased power (energy only) adjustment clause, an environmental cost recovery surcharge, and other timely cost recovery mechanisms, while its smaller gas operations benefit from a gas supply clause. Construction outlays diminish significantly in 2010 following completion of the 750 megawatt Trimble County Unit 2 coal-fired facility, of which the company owns 75%. However, beginning in 2011, capital expenditures begin to accelerate for ongoing environmental requirements and other project betterments.

On July 16, 2009, E.ON U.S.'s subsidiary Western Kentucky Energy Corp. and Big Rivers Electric Corp. completed termination of the power plant lease arrangement. While unwinding of the contract required a large one-time cash payment of about $575 million and other concessions, it significantly reduces E.ON U.S.'s dependence on riskier unregulated activities, and enhances the company's business risk profile within the 'excellent category'.

E.ON U.S.'s consolidated financial metrics have declined somewhat owing primarily to its heavy construction program. However, with well-controlled operating and maintenance expenses, continued efficient operations, responsive regulatory treatment, and credit supportive actions by management, bondholder protection parameters should strengthen to levels more commensurate with the current rating level.

Liquidity

Standard & Poor's expects consolidated capital spending to exceed cash flow from operations primarily because of significant environmental expenditures and outlays to complete the Trimble County Unit 2 station. The steady internal cash flow generated by E.ON U.S.'s regulated operations will not be enough to meet these obligations, thus creating a reliance on external financing. Such funding is expected to be concentrated at parent E.ON AG, which will also provide support in the case of short-term liquidity needs. (A cross-default clause in E.ON AG's credit facility protects E.ON U.S. as long as it is a "material subsidiary.") An E.ON AG-related entity provides a credit facility to E.ON U.S. to ensure funding availability for its money pool.

Outlook

The stable outlook on KU mirrors that of parent E.ON U.S. and is based on continued support from E.ON AG and a corporate strategy that maintains a primarily low-risk, utility-based business risk profile. The ratings and outlook on E.ON U.S. and its subsidiaries are loosely linked to those on E.ON AG. However, the significance of E.ON's U.S. operations to its group strategy remains a factor in the ratings on E.ON U.S. Any change in the parent's attitude toward its U.S. holdings or in Standard & Poor's perception of the parent's support could lead to a rating change.

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February 12, 2010

Kentucky Utilities Co.

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Kentucky Utilities Co.

Major Rating Factors

Corporate Credit Rating
BBB+/Stable/A-2

Strengths:
- The implicit credit support provided by ultimate parent E.ON A.G.;
- Stable and relatively predictable utility operations and associated cash flows;
- Constructive regulatory environment in Kentucky; and
- Competitive rates and high customer satisfaction rankingss in the region.

Weaknesses:
- Little fuel diversity, virtually all coal-fired;
- Heavy construction program to meet environmental requirements and new generating capacity; and
- Rate relief needs during at time of unusual economic weakness.

Rationale

The ratings on Kentucky Utilities Co. (KU) are based primarily on parent E.ON U.S. LLC's consolidated credit profile. The ratings on E.ON U.S. reflect the credit profile of its two operating utilities in Kentucky--Louisville Gas & Electric Co. (LG&E, BBB+/Stable/--) and Kentucky Utilities Co. (BBB+/Stable/A-2)--and the company's focus on operating the fully integrated utilities. Implicit support from ultimate parent Germany-based integrated power and gas utility E.ON AG (A/Stable/A-1) is factored into the ratings analysis.

E.ON U.S.'s consolidated business risk profile is viewed as 'excellent' (business risk profiles are categorized as 'excellent' to 'vulnerable') and its financial profile is considered to be aggressive (financial profiles are ranked from 'minimal' to 'highly leveraged'). The company's business risk profile is supported by relatively low-risk, regulated vertically integrated electric and natural gas distribution operations, a stable and credit supportive regulatory environment in Kentucky, efficient generation facilities that allow for competitive rates, consistently high customer satisfaction rankings, and effective cost containment. The company's electric operations benefit from a fuel and purchased power (energy only) adjustment clause, an environmental cost recovery surcharge and other timely cost recovery mechanisms, while its smaller gas operations benefit from a gas supply clause. Construction outlays focus on the company's 75% ownership share in the 750 MW Trimble County Unit 2 coal-fired facility, slated for completion later this year, ongoing environmental requirements and other project betterments.

On July 16, 2009, termination of the power plant lease arrangement between E.ON U.S.'s subsidiary Western Kentucky Energy Corp. and Big Rivers Electric Corp. was completed. While unwinding of the contract required a large one-time cash payment of $575 million and other concessions, it significantly reduces E.ON U.S.'s dependence on riskier unregulated activities, and enhances the company's business risk profile within the "excellent category."

Currently pending before the Kentucky Public Service Commission (KPSC) are rate applications for a $94.6 million (12.1%) electric rate hike and a $22.6 million (7.7%) natural gas rate increase for LG&E and a $135 million (11.5%) electric rate hike for KU. The rate requests are predicated upon an 11.50% return on equity. Commission orders are expected this summer. Higher rates are needed to recover the utilities' investment in Trimble County, damage costs related to severe storms and higher costs. The fact that the state regulators will be reviewing rate hike requests at a time of unusual economic weakness is a credit concern. Therefore, the company's ability to manage regulatory risk will be critical to credit quality.

E.ON U.S.'s consolidated financial metrics have declined somewhat owing primarily to its heavy construction program. However, with well controlled operating and maintenance expenses, continued efficient operations, responsive regulatory treatment and credit supportive actions by management, bondholder protection parameters should strengthen to levels more commensurate with the current rating level.

Liquidity

Standard & Poor's expects consolidated capital spending at E.ON U.S. to exceed cash flow from operations primarily because of significant environmental expenditures and outlays to complete the Trimble County Unit 2 station. The steady internal cash flow generated by KU's and LG&E's regulated operations will not be enough to meet these obligations, thus creating a reliance on outside capital. Such funding is expected to be concentrated at parent E.ON AG, which will also provide support in the case of short-term liquidity needs. (A cross-default clause in E.ON's credit facility protects E.ON U.S. as long as it is a "material subsidiary".) An E.ON-related entity provides a credit facility to E.ON U.S. to ensure funding availability for its money pool.

Outlook

The stable outlook on KU mirrors that of parent E.ON U.S. and is based on continued support from parent E.ON AG and a corporate strategy that maintains a primarily low-risk, utility-based business risk profile. The ratings and outlook on E.ON U.S. and its subsidiaries are loosely linked to those on E.ON AG. However, the significance of E.ON's U.S. operations to its group strategy remains a factor in the ratings on E.ON U.S. Any change in the parent's attitude toward its U.S. holdings or in Standard & Poor's perception of the parent's support could lead to a rating change. Ratings stability on E.ON AG reflects our expectation that it will maintain a financial profile commensurate with the ratings, especially consolidated FFO coverage of debt on an adjusted basis of more than 20%. Given the deterioration in E.ON AG's financial profile and its substantial investment program, there is no upside ratings potential. The ratings could be lowered if E.ON AG were not to maintain credit metrics commensurate with the ratings. This could, in particular, occur if the group were not to deliver on its disposal program.

Table 1.

Kentucky Utilities Co. -- Financial Summary*

Industry Sector: Electric

	--Fiscal year ended Dec. 31--				
	2008	2007	2006	2005	2004
Rating history	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2
(Mil. $)					
Revenues	1,404.0	1,273.0	1,210.0	1,206.6	995.4
Net income from continuing operations	158.0	167.0	152.0	112.1	133.5
Funds from operations (FFO)	308.1	323.9	249.6	234.4	213.3
Capital expenditures	703.9	745.3	349.5	140.0	156.4
Cash and short-term investments	12.0	0	6.0	6.7	4.6
Debt	1,742.3	1,465.5	1,146.9	1,061.8	976.1
Preferred stock	0.0	0.0	0.0	0.0	39.7
Equity	1,744.0	1,435.0	1,193.0	974.9	965.0

Table 1.

Kentucky Utilities Co. -- Financial Summary* (cont.)					
Debt and equity	3,486.3	2,900.5	2,339.9	2,036.7	1,941.0
Adjusted ratios					
EBIT interest coverage (x)	3.9	4.9	6.1	5.8	7.8
FFO int. cov. (x)	4.7	5.8	6.3	7.0	7.8
FFO/debt (%)	17.7	22.1	21.8	22.1	21.9
Discretionary cash flow/debt (%)	(23.2)	(29.5)	(11.0)	2.7	(1.1)
Net Cash Flow / Capex (%)	43.8	43.5	71.4	130.4	94.6
Debt/debt and equity (%)	50.0	50.5	49.0	52.1	50.3
Return on common equity (%)	9.9	12.7	13.7	11.1	14.1
Common dividend payout ratio (un-adj.) (%)	0	0	0	45.3	48.9

*Fully adjusted (including postretirement obligations).

Table 2.

Reconciliation Of Kentucky Utilities Co. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)*

--Fiscal year ended Dec. 31, 2008--

Kentucky Utilities Co. reported amounts

	Debt	Operating income (before D&A)	Operating income (before D&A)	Operating income (after D&A)	Interest expense	Cash flow from operations	Cash flow from operations	Capital expenditures
Reported	1,548.0	395.0	395.0	259.0	72.0	297.0	297.0	690.0
Standard & Poor's adjustments								
Operating leases	26.5	7.5	1.2	1.2	1.2	6.3	6.3	13.9
Postretirement benefit obligations	120.9	3.0	3.0	3.0	1.0	(2.0)	(2.0)	--
Asset retirement obligations	20.8	2.0	2.0	2.0	2.0	(1.3)	(1.3)	--
Reclassification of nonoperating income (expenses)	--	--	--	39.0	--	--	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	8.0	--
Other	26.1	--	--	--	1.6	--	--	--
Total adjustments	194.3	12.5	6.2	45.2	5.7	3.1	11.1	13.9

Standard & Poor's adjusted amounts

	Debt	Operating income (before D&A)	EBITDA	EBIT	Interest expense	Cash flow from operations	Funds from operations	Capital expenditures
Adjusted	1,742.3	407.5	401.2	304.2	77.7	300.1	308.1	703.9

*Kentucky Utilities Co. reported amounts shown are taken from the company's financial statements but might include adjustments made by data providers or reclassifications made by Standard & Poor's analysts. Please note that two reported amounts (operating income before D&A and cash flow from operations) are used to derive more than one Standard & Poor's-adjusted amount (operating income before D&A and EBITDA, and cash flow from operations and funds from operations, respectively). Consequently, the first section in some tables may feature duplicate descriptions and amounts.

Ratings Detail (As Of February 12, 2010)*

Kentucky Utilities Co.

Corporate Credit Rating	BBB+/Stable/A-2

Ratings Detail (As Of February 12, 2010) (cont.)	
Senior Unsecured (3 Issues)	BBB+
Senior Unsecured (4 Issues)	BBB+/A-2
Corporate Credit Ratings History	
27-Mar-2009	BBB+/Stable/A-2
25-Mar-2009	BBB+/Stable/NR
04-Aug-2003	BBB+/Stable/A-2
Business Risk Profile	Excellent
Financial Risk Profile	Aggressive
Related Entities	
Central Networks East PLC	
Issuer Credit Rating	A/Stable/A-1
E.ON AG	
Issuer Credit Rating	A/Stable/A-1
Commercial Paper	A-1
Senior Unsecured (52 Issues)	A
Short-Term Debt (1 Issue)	A-1
E.ON Energy Ltd.	
Issuer Credit Rating	A/Stable/A-1
E.ON International Finance B.V.	
Commercial Paper	
Local Currency	A-1
E.ON U.K. PLC	
Issuer Credit Rating	A/Stable/A-1
Senior Unsecured (1 Issue)	A
E.ON U.S. LLC	
Issuer Credit Rating	BBB+/Stable/--
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB+/Stable/NR
Senior Unsecured (8 Issues)	BBB+
Senior Unsecured (4 Issues)	BBB+/A-2
Powergen (East Midlands) Investments	
Issuer Credit Rating	A/Stable/--

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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May 6, 2010

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Kentucky Utilities Co.

Major Rating Factors

Corporate Credit Rating

BBB+/Stable/A-2

Major Rating Factors

Strengths:

- Stable and relatively predictable utility operations and associated cash flows;
- Credit supportive regulatory environment in Kentucky;
- Competitive rates; and
- Efficient operations and high customer satisfaction ratings.

Weaknesses:

- Little fuel diversity, virtually all coal-fired;
- Heavy construction program;
- Rate relief needs during a time of unusual economic weakness; and
- Somewhat subpar consolidated financial metrics.

Rationale

The ratings on Kentucky Utilities Co. (KU) are based primarily on parent E.ON U.S. LLC's credit profile. The ratings on E.ON U.S. are based primarily on the credit profile of its two operating utilities in Kentucky--Louisville Gas & Electric Co. (BBB+/Stable/--) and KU--and the company's focus on operating the fully integrated utilities. Current ratings are linked to ultimate parent E.ON AG (A/Stable/A-1).

On April 28, 2010, PPL Corp. announced its plan to acquire E.ON U.S. for $7.625 billion in cash. The transaction includes the assumption of $574 million of tax-exempt debt at LGE and $351 million of tax-exempt debt at KU. The acquisition requires approvals by state regulators in Kentucky, Virginia and Tennessee, and by the FERC. The transaction is expected to close by the end of 2010.

The inclusion of LG&E and KU into PPL will rebalance PPL's portfolio toward a greater regulated mix. With regulated operations contributing 60%-65% of the overall cash flow post acquisition compared with about 30% in 2009, the "excellent" business risk profile of the utility businesses will more than offset the "satisfactory" business risk profile of the generation business. This will result in a pro forma "strong" consolidated business risk profile. We expect consolidated debt to EBITDA and total debt to total capital ratios to range in the "significant" financial risk profile category. Projected FFO to total debt of 23.5%-25% will likely support ratings at the higher end of the 'BBB' rating category on successful completion of the acquisition.

The acquisition requires large permanent financing that has attendant execution risks. If the transaction with PPL is not ultimately consummated, we will affirm the 'BBB+' ratings on E.ON U.S., LG&E, and KU.

We view E.ON U.S.'s consolidated business risk profile as 'excellent' (we categorize business risk profiles as 'excellent' to 'vulnerable') and its financial profile as 'aggressive' (financial profiles are ranked from 'minimal' to 'highly leveraged'). The company's business risk profile is supported by relatively low-risk, regulated vertically integrated electric and natural gas distribution operations, a stable and credit supportive regulatory environment in Kentucky, efficient generation facilities that allow for competitive rates, consistently high customer satisfaction rankings, and effective cost containment. The company's electric operations benefit from a fuel and purchased power (energy only) adjustment clause, an environmental cost recovery surcharge, and other timely cost recovery mechanisms, while its smaller gas operations benefit from a gas supply clause. These strengths are tempered by the lack of fuel diversity (nearly all coal-fired), a relatively heavy construction program, and rate relief needs during a period of unusual economic weakness. Construction outlays focus on the company's 75% ownership share in the 750 MW Trimble County Unit 2 coal-fired facility that's slated for completion later this year, ongoing environmental requirements, and other project betterments.

On July 16, 2009, the power plant lease arrangement between E.ON U.S.'s subsidiary Western Kentucky Energy Corp. and Big Rivers Electric Corp. was terminated. While unwinding of the contract required a large one-time cash payment of $575 million and other concessions, it significantly reduces E.ON U.S.'s dependence on riskier unregulated activities, and enhances the company's business risk profile within the "excellent" category.

Currently pending before the Kentucky Public Service Commission are rate applications for a $94.6 million (12.1%) electric rate hike and a $22.6 million (7.7%) natural gas rate increase for LG&E and a $135 million (11.5%) electric rate hike for KU. The rate requests are predicated upon an 11.5% return on equity. Commission orders are expected this summer. Higher rates are needed to recover the utilities' investment in Trimble County Unit 2, damage costs related to severe storms, and higher costs. The fact that the state regulators will be reviewing somewhat large rate hike requests in a weakened economy is a credit concern. Therefore, the company's ability to manage regulatory risk will be critical to credit quality.

E.ON U.S.'s consolidated financial metrics have declined somewhat, owing primarily to its heavy construction program. However, with well controlled operating and maintenance expenses, continued efficient operations, responsive regulatory treatment, and credit supportive actions by management, bondholder protection parameters should strengthen to levels more commensurate with the current rating level.

Short-term credit factors

Standard & Poor's expects E.ON U.S.'s capital spending to exceed cash flow from operations primarily because of significant environmental expenditures and outlays to complete the Trimble County Unit 2 station. The steady internal cash flow generated by KU's and LG&E's regulated operations will not be enough to meet these obligations, thus creating a reliance on outside capital. Such funding is expected to be concentrated at Germany-based parent E.ON AG, which will also provide support in the case of short-term liquidity needs. (An E.ON AG-related entity provides a credit facility to E.ON U.S. to ensure funding availability for its money pool.

Outlook

The stable outlook on KU mirrors that of parent E.ON U.S. and is based on corporate strategy that maintains a primarily low-risk, utility-based business risk profile. Standard & Poor's could lower the ratings absent future sufficient rate relief, if construction expenditures materially increase resulting in higher-than-expected reliance on debt, and if cash flow metrics erode. In light of a prospectively heavy capital program and subpar financial metrics, higher ratings are not envisioned in the foreseeable future.

Related Criteria And Research

- "2008 Corporate Criteria: Analytical Methodology," April 15, 2008.
- "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

Table 1.

Kentucky Utilities Co. -- Financial Summary*

Industry Sector: Electric

	--Fiscal year ended Dec. 31--				
	2009	**2008**	**2007**	**2006**	**2005**
Rating history	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2
(Mil. $)					
Revenues	1,355.0	1,404.0	1,273.0	1,210.0	1,206.6
Net income from continuing operations	133.0	158.0	167.0	152.0	112.1
Funds from operations (FFO)	291.7	308.1	323.9	249.6	234.4
Capital expenditures	522.4	703.9	745.3	349.5	140.0
Cash and short-term investments	2.0	12.0	0.0	6.0	6.7
Debt	1,917.8	1,780.9	1,465.5	1,146.9	1,061.8
Preferred stock	0	0	0	0	0
Equity	1,952.0	1,744.0	1,435.0	1,193.0	974.9
Debt and equity	3,869.8	3,524.9	2,900.5	2,339.9	2,036.7
Adjusted ratios					
EBIT interest coverage (x)	3.4	3.8	4.9	6.1	5.8
FFO int. cov. (x)	4.1	4.7	5.8	6.3	7.0
FFO/debt (%)	15.2	17.3	22.1	21.8	22.1
Discretionary cash flow/debt (%)	(13.6)	(22.7)	(29.5)	(11.0)	2.7
Net Cash Flow / Capex (%)	55.8	43.8	43.5	71.4	130.4
Debt/debt and equity (%)	49.6	50.5	50.5	49.0	52.1
Return on common equity (%)	7.2	9.9	12.7	13.7	11.1
Common dividend payout ratio (un-adj.) (%)	0	0	0	0	45.3

*Fully adjusted (including postretirement obligations).

Table 2.

Reconciliation Of Kentucky Utilities Co. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)*

	--Fiscal year ended Dec. 31, 2009--							
Kentucky Utilities Co. reported amounts								
	Debt	**Operating income (before D&A)**	**Operating income (before D&A)**	**Operating income (after D&A)**	**Interest expense**	**Cash flow from operations**	**Cash flow from operations**	**Capital expenditures**
Reported	1,727.0	402.0	402.0	269.0	75.0	253.0	253.0	516.0
Standard & Poor's adjustments								
Operating leases	26.1	8.0	1.2	1.2	1.2	6.8	6.8	6.4
Postretirement benefit obligations	104.0	18.0	18.0	18.0	7.0	3.3	3.3	--

Table 2.

Reconciliation Of Kentucky Utilities Co. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)* (cont.)								
Power purchase agreements	38.6	1.8	1.8	1.8	1.8	--	--	--
Asset retirement obligations	22.1	2.0	2.0	2.0	2.0	(1.3)	(1.3)	--
Reclassification of nonoperating income (expenses)	--	--	--	6.0	--	--	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	30.0	--
Total adjustments	190.8	29.8	23.0	29.0	12.0	8.7	38.7	6.4

Standard & Poor's adjusted amounts

	Debt	Operating income (before D&A)	EBITDA	EBIT	Interest expense	Cash flow from operations	Funds from operations	Capital expenditures
Adjusted	1,917.8	431.8	425.0	298.0	87.0	261.7	291.7	522.4

*Kentucky Utilities Co. reported amounts shown are taken from the company's financial statements but might include adjustments made by data providers or reclassifications made by Standard & Poor's analysts. Please note that two reported amounts (operating income before D&A and cash flow from operations) are used to derive more than one Standard & Poor's-adjusted amount (operating income before D&A and EBITDA, and cash flow from operations and funds from operations, respectively). Consequently, the first section in some tables may feature duplicate descriptions and amounts.

Ratings Detail (As Of May 6, 2010)*	
Kentucky Utilities Co.	
Corporate Credit Rating	BBB+/Stable/A-2
Senior Unsecured (3 Issues)	BBB+
Senior Unsecured (4 Issues)	BBB+/A-2
Corporate Credit Ratings History	
27-Mar-2009	BBB+/Stable/A-2
25-Mar-2009	BBB+/Stable/NR
04-Aug-2003	BBB+/Stable/A-2
Business Risk Profile	Excellent
Financial Risk Profile	Aggressive
Related Entities	
Central Networks East PLC	
Issuer Credit Rating	A/Stable/A-1
E.ON AG	
Issuer Credit Rating	A/Stable/A-1
Commercial Paper	A-1
Senior Unsecured (50 Issues)	A
Short-Term Debt (1 Issue)	A-1
E.ON Energy Ltd.	
Issuer Credit Rating	A/Stable/A-1
E.ON International Finance B.V.	
Commercial Paper	
Local Currency	A-1

Ratings Detail (As Of May 6, 2010)*(cont.)	
E.ON U.K. PLC	
Issuer Credit Rating	A/Stable/A-1
Senior Unsecured (1 Issue)	A
E.ON U.S. LLC	
Issuer Credit Rating	BBB+/Stable/--
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB+/Stable/NR
Senior Unsecured (8 Issues)	BBB+
Senior Unsecured (4 Issues)	BBB+/A-2
Powergen (East Midlands) Investments	
Issuer Credit Rating	A/Stable/--

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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March 22, 2011

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Kentucky Utilities Co.

Major Rating Factors

Corporate Credit Rating
BBB/Watch Neg/A-3

Strengths:

- Stable and predictable cash flows;
- Credit-supportive regulatory environment in Kentucky;
- Competitive rates; and
- Efficient operations and high customer satisfaction ratings.

Weaknesses:

- Little fuel diversity; the company's plants are virtually all coal-fired;
- Exposure to pending environmental standards, especially carbon dioxide; and
- Linked to parent credit quality.

Rationale

The ratings on vertically-integrated electric utility Kentucky Utilities Co. (KU) reflect the credit quality of ultimate parent PPL Corp.on that, along with affiliates KU, Louisville Gas & Electric Co. (LG&E), LG&E and KU Energy LLC (LKE), PPL Electric Utilities Corp. (PPLEU), PPL Energy Supply LLC (PPL Energy), Western Power Distribution (South West) PLC, and Western Power Distribution (South Wales) PLC, are on CreditWatch with negative implications. Affiliate Western Power Distribution Holdings Ltd. is on CreditWatch with developing implications. The CreditWatch listings followed PPL's planned acquisition of E.ON UK's Central Networks West PLC (CNW) and Central Networks East PLC (CNE), two distribution networks in the U.K. The CreditWatch listing directly relates to the execution of the financing plan for the acquisition, which includes a commitment by the company for a substantial issuance of equity. Resolution of the CreditWatch will depend on the company's ability to complete its financing activities consistent with our expectations for the 'BBB' ratings.

Allentown, Pa.-based PPL has about $13.4 billion of debt, including $1.63 billion of junior subordinated notes.

PPL's purchase price of Central Networks utilities includes the assumption of $800 million of public debt and cash of $5.6 billion (excluding related transaction expenses and fees) that it will fund initially through a bridge loan and ultimately through a combination of cash, common equity issuance at PPL, unsecured debt at CNW and CNE, and unsecured debt at an intermediate holding company (generically UK Holdings) that will own CNW and CNE. In addition, PPL will issue equity units at PPL Capital Funding, which will likely receive high equity credit under our rating criteria. This acquisition will raise PPL's regulated cash flows to about 75% from the current level of 60%. Before PPL bought the Kentucky utilities, its regulated cash flows contributed less than 30%. The ratings change reflects our revisions, in accordance with our criteria, of PPL's business risk profile to excellent from strong (we categorize business risk profiles as excellent to vulnerable) and the company's financial risk profile to aggressive from significant (we rank financial profiles from minimal to highly leveraged).

Our revision of the business profile to excellent reflects the addition of fully regulated distribution utilities that have credit-supportive U.K. regulation and no commodity exposure, since nonaffiliated retail suppliers procure power for retail customers. The Central Networks utilities are contiguous to PPL's existing U.K. utilities. After the acquisition of CNE and CNW, we expect U.K. operations to be about 30% of PPL's consolidated cash flow. With this transaction, we are viewing all of PPL's utility assets as part of a consolidated entity, whereas previously we considered only the quality of the utility's dividends to its parent. The stability of CNE and CNW, along with existing utility assets in the U.K., Kentucky, and Pennsylvania, which we assess as excellent, will more than offset the satisfactory business risk profile of PPL Energy's merchant generation, resulting in a consolidated business profile of excellent. We expect the merchant generation business to contribute less than 25% of pro forma consolidated cash flows.

KU's consolidated business risk profile that is considered excellent reflects the strengths of serving electric customers scattered throughout Kentucky including those in Lexington. The utility's strengths include relatively predictable utility operations with steady cash flows, constructive cost recovery, and relatively low rates stemming from low-cost coal-fired generation. Although it burns coal at most plants, they meet current environmental requirements and have a significant amount of capital spending through 2014 that should be recoverable through rates.

As KU's financial risk profile reflects that of PPL's consolidated profile, we consider it as aggressive. Our revision of the financial risk profile to aggressive reflects in part the company's financial policies toward acquisitions, including funding with aggressive levels of hybrid securities. Furthermore, due to the company's strategy of focusing on fully regulated operations and expanding its U.K. presence, we are incorporating consolidated financial measures for PPL in our analysis. When reviewing the financial metrics, we are now including all cash flows and debt obligations from the U.K. utilities and PPLEU in PPL's financial measures. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to range in the aggressive category of our financial risk profile. Debt to EBITDA should range between 4x and 5x, while we expect the percentage of FFO to debt to be in the mid-teens. These measures will support ratings at the 'BBB' level when the company successfully completes the permanent financing.

Short-term credit factors

KU's short-term rating is A-3. Its liquidity position reflects that of PPL. We consider PPL's liquidity as strong under our corporate liquidity methodology, which categorizes liquidity in five standard descriptors. Liquidity supports PPL's 'BBB+' issuer credit rating. Projected sources of liquidity, mainly operating cash flow and available bank lines, exceed projected uses, mainly necessary capital expenditures, debt maturities, and common dividends, by more than 1.5x. Sources over uses would be positive even after a 50% EBITDA decline. Further supporting our description of liquidity as strong is PPL's ability to absorb high-impact, low-probability events with limited need for refinancing, its flexibility to lower capital spending, its sound bank relationships, its solid standing in credit markets, and generally prudent risk management.

Recovery analysis

We assign recovery ratings to First Mortgage Bonds (FMBs) issued by investment-grade U.S. utilities, which can result in issue ratings being notched above a utility's corporate credit rating (CCR) depending on the CCR category and the extent of the collateral coverage. We base the investment-grade FMB recovery methodology on the ample historical record of nearly 100% recovery for secured bondholders in utility bankruptcies and our view that the factors that supported those recoveries (limited size of the creditor class and the durable value of utility rate-based assets during and after a reorganization given the essential service provided and the high replacement cost) will persist in the future. Under our notching criteria, we consider the limitations of FMB issuance under the utility's indenture relative to the value of the collateral pledged to bondholders, management's stated intentions on future FMB issuance, as well as the regulatory limitations on bond issuance when assigning issue ratings to utility FMBs.

FMB ratings can exceed a utility's CCR by up to one notch in the 'A' category, two notches in the 'BBB' category, and three notches in speculative-grade categories.

KU's FMBs benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of about 1.5x supports a recovery rating of '1+' and an issue rating two notches above the CCR.

CreditWatch

The CreditWatch listing will remain until PPL demonstrates progress on the permanent financing plan in line with our expectations. The acquisition requires large permanent financing that has attendant execution risks, and we will monitor PPL's ability to finalize this permanent financing. We could remove the CreditWatch listing and assign a stable outlook if financing is consistent with our expectation. We could lower the ratings if PPL can't fully execute its permanent financing plan in a credit-supportive manner consistent with our expectations for 'BBB' ratings.

Related Criteria And Research

- 2008 Corporate Criteria: Analytical Methodology
- Criteria Methodology: Business Risk/Financial Risk Matrix Expanded
- 2008 Corporate Criteria: Ratios And Adjustments
- Methodology And Assumptions: Standard & Poor's Standardizes Liquidity Descriptors For Global Corporate Issuers

Financial figures are not available because the company's figures are not currently public.

Ratings Detail (As Of March 22, 2011)	
Kentucky Utilities Co.	
Corporate Credit Rating	BBB/Watch Neg/A-3
Senior Secured (5 Issues)	A-/A-3
Senior Secured (2 Issues)	A-/NR
Senior Secured (3 Issues)	A-/Watch Neg
Corporate Credit Ratings History	
02-Mar-2011	BBB/Watch Neg/A-3
27-Mar-2009	BBB+/Stable/A-2
25-Mar-2009	BBB+/Stable/NR
Business Risk Profile	Excellent
Financial Risk Profile	Aggressive
Related Entities	
LG&E and KU Energy LLC	
Issuer Credit Rating	BBB/Watch Neg/--
Senior Unsecured (2 Issues)	BBB-/Watch Neg
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB/Watch Neg/A-3
Senior Secured (11 Issues)	A-/A-3

Ratings Detail (As Of March 22, 2011)* (cont.)	
Senior Secured (1 Issue)	A-/NR
Senior Secured (2 Issues)	A-/Watch Neg
PPL Corp.	
Issuer Credit Rating	BBB/Watch Neg/NR
Junior Subordinated (2 Issues)	BB+/Watch Neg
Senior Unsecured (3 Issues)	BBB-/Watch Neg
PPL Electric Utilities Corp.	
Issuer Credit Rating	BBB/Watch Neg/A-3
Commercial Paper	
Local Currency	A-3/Watch Neg
Preference Stock (1 Issue)	BB+/Watch Neg
Senior Secured (8 Issues)	BBB+/Watch Neg
PPL Energy Supply LLC	
Issuer Credit Rating	BBB/Watch Neg/NR
Senior Unsecured (12 Issues)	BBB/Watch Neg
PPL Montana LLC	
Senior Secured (1 Issue)	BBB-/Positive
Western Power Distribution Holdings Ltd.	
Issuer Credit Rating	BBB-/Watch Dev/A-3
Senior Unsecured (2 Issues)	BBB-/Watch Neg
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB/Watch Neg/A-3
Senior Unsecured (3 Issues)	BBB/Watch Neg
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB/Watch Neg/A-3
Senior Unsecured (4 Issues)	BBB/Watch Neg

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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September 23, 2011

Summary:
Kentucky Utilities Co.

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Summary:
Kentucky Utilities Co.

Credit Rating: BBB/Stable/A-2

Rationale

Standard & Poor's Ratings Services bases its rating on vertically integrated electric utility Kentucky Utilities Co. (KU) on the consolidated credit profile of ultimate parent PPL Corp., which includes what we consider to be an excellent business risk profile and aggressive financial risk profile. (For more on business risk and financial risk, see "Business Risk/Financial Risk Matrix Expanded," published May 27, 2009, on RatingsDirect on the Global Credit Portal.) In the U.S., holding company PPL Corp. consists of KU and other vertically integrated utility subsidiary Louisville Gas & Electric Co. (LG&E). In addition, PPL Corp. owns transmission and distribution electric utility PPL Electric Utilities Corp. (PPLEU) and PPL Energy Supply LLC, an unregulated generation subsidiary that has 10,760 megawatts of unregulated generation capacity that consists of well-located, low-cost nuclear and coal plants that are well hedged through 2012. In the U.K., PPL Corp. owns electric distribution networks Western Power Distribution (South West) PLC, Western Power Distribution (South Wales) PLC, Western Power Distribution (West Midlands) PLC, and Western Power Distribution (East Midlands) PLC. PPL Corp.'s rating reflects a mostly regulated utility strategy that will include continuous capital spending and timely cost recovery through various regulatory mechanisms.

The excellent business risk profile incorporates PPL Corp.'s strategy as a mostly regulated public utility holding company. PPL Corp.'s numerous utilities serve 10 million electric customers in the U.K., Pennsylvania, and Kentucky, and 320,000 natural gas distribution customers in Kentucky. The U.K. wires-only distribution utilities have credit-supportive U.K. regulation and no commodity risk because nonaffiliated retail suppliers procure the electricity for retail customers. We expect these U.K. operations to contribute about 30% of PPL Corp.'s consolidated cash flow. The stability of the U.K. cash flows, along with existing utility assets in Kentucky and Pennsylvania, all of which we assess as excellent, will more than offset the business risk profile of PPL Energy's merchant generation, which we assess as satisfactory, resulting in the excellent business profile overall. We expect the merchant generation business to comprise less than 25% of pro forma consolidated cash flows.

KU's consolidated business risk profile, which we consider excellent, reflects the strengths of serving electric customers scattered throughout Kentucky, including those in Lexington. The utility's strengths include relatively predictable utility operations with steady cash flows, constructive cost recovery, and relatively low rates stemming from low-cost coal-fired generation. Although most of its plants burn coal, they meet current environmental requirements, and the significant amount of capital spending needed for environmental compliance through 2015 should be recoverable through rates.

The financial risk profile for KU reflects that of PPL Corp. The consolidated financial profile, which we consider aggressive, reflects adjusted financial measures that are in line with the rating. We expect that financial measures will continue at current levels as the company incorporates full cost recovery of capital spending in operating cash flow. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to remain in line with the rating. For the 12 months ended June 30, 2011, FFO to total debt was 16.5%, total debt to total capital was about 58%, and debt to EBITDA was 4.8x. After reducing cash flow from operations by capital spending and dividends, discretionary cash flow was negative $275 million, indicating a need for external funding. In addition, net cash flow (FFO after dividends) to capital spending was 101%. FFO interest coverage was 4.1x, and the company's dividend payout ratio was 50%. The consolidated adjustments for PPL Corp. include pension-related items, intermediate equity treatment of the junior subordinated notes, and high equity treatment of mandatory convertible securities.

Liquidity

The short-term rating on KU is 'A-2'. The utility's liquidity position reflects that of parent PPL Corp., which we consider adequate under Standard & Poor's liquidity methodology. (We categorize liquidity in five standard descriptors. See "Standard & Poor's Standardizes Liquidity Descriptors for Global Corporate Issuers," published July 2, 2010.)

We base our liquidity assessment on the following factors and assumptions:

- We expect PPL Corp.'s liquidity sources over the next 12 months, including cash, FFO, and credit facility availability, to exceed uses by about 1.2x. Uses include necessary capital spending, working capital, debt maturities, and shareholder distributions.
- Debt maturities are manageable over the next 12 months.
- We believe liquidity sources would exceed uses by 30% even if there were a 20% decline in FFO.
- In our assessment, PPL Corp. has good relationships with its banks, and has a good standing in the credit markets, having successfully issued debt during the recent credit crisis.

In our analysis of liquidity over the next 12 months, we assume $6.9 billion of liquidity sources, consisting of FFO and credit facility availability. We estimate liquidity uses of $5 billion for capital spending, maturing debt, working capital, and shareholder distributions.

PPL Corp.'s credit agreements include a financial covenant requiring debt to total capitalization no greater than 65% for PPL Energy Supply and 70% for the U.S. utilities. As of June 30, 2011, the company was in compliance with the covenants.

Debt maturities are manageable through 2014, with $500 million in 2011, $0 in 2012, $737 million in 2013, and $300 million in 2014. However, in 2015, $1.3 billion is due. We expect that the company will refinance many of these debt maturities.

Recovery analysis

We assign recovery ratings to first mortgage bonds (FMBs) issued by investment-grade U.S. utilities, which can result in issue ratings being notched above a utility's corporate credit rating (CCR) depending on the CCR category and the extent of the collateral coverage. We base the investment-grade FMB recovery methodology on the ample historical record of nearly 100% recovery for secured bondholders in utility bankruptcies and on our view that the factors that supported those recoveries (limited size of the creditor class, and the durable value of utility rate-based assets during and after a reorganization, given the essential service provided and the high replacement cost) will persist in the future. Under our notching criteria, when assigning issue ratings to utility FMBs, we consider the limitations of FMB issuance under the utility's indenture relative to the value of the collateral pledged to bondholders, management's stated intentions on future FMB issuance, as well as the regulatory limitations on bond issuance. FMB ratings can exceed a utility's CCR by up to one notch in the 'A' category, two notches in the 'BBB' category, and three notches in speculative-grade categories.

KU's FMBs benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of about 1.5x supports a recovery rating of '1+' and an issue rating two notches above the CCR.

Outlook

The stable outlook on KU reflects our expectation that PPL Corp.'s management will focus on its fully regulated utilities and will not increase unregulated operations beyond current levels. The outlook also reflects our expectations that cash flow protection and debt leverage measures will be appropriate for the rating. Specifically, our baseline forecast includes FFO to total debt of around 15%, debt to EBITDA between 4x and 5x, and debt leverage to total capital under 60%, consistent with our expectations for the 'BBB' rating. Given the company's mostly regulated focus, we expect that PPL Corp. will avoid any meaningful rise in business risk by reaching constructive regulatory outcomes and limit its unregulated operations to existing levels. We could lower the ratings if PPL Corp. cannot sustain consolidated financial measures of FFO to total debt of at least 12%, debt to EBITDA below 5x, and debt leverage under 62%. This could occur if market power prices remain weak due to ongoing depressed demand. Although unlikely over the intermediate term, we could raise the ratings if the business profile further strengthens and if financial measures exceed our baseline forecast on a consistent basis, including FFO to total debt in excess of 20%, debt to EBITDA below 4x, and debt to total capital around 50%.

Related Criteria And Research

- Standard & Poor's Standardizes Liquidity Descriptors for Global Corporate Issuers, July 2, 2010
- Business Risk/Financial Risk Matrix Expanded, May 27, 2009
- Analytical Methodology, April 15, 2008
- Ratios And Adjustments, April 15, 2008
- Changes To Collateral Coverage Requirements For '1+' Recovery Ratings On U.S. Utility First Mortgage Bonds, Sept. 6, 2007

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November 1, 2011

Kentucky Utilities Co.

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Kentucky Utilities Co.

Major Rating Factors

Corporate Credit Rating
BBB/Stable/A-2

Strengths:

- Stable and predictable cash flows;
- Credit-supportive regulatory environment in Kentucky;
- Competitive rates; and
- Efficient operations and high customer satisfaction ratings.

Weaknesses:

- Little fuel diversity, the company's plants are virtually all coal-fired;
- Exposure to pending environmental standards; and
- Linked to parent credit quality.

Rationale

Standard & Poor's Ratings Services bases its rating on vertically integrated electric utility Kentucky Utilities Co. (KU) on the consolidated credit profile of ultimate parent PPL Corp., which includes what we consider to be an excellent business risk profile and aggressive financial risk profile. (For more on business risk and financial risk, see "Business Risk/Financial Risk Matrix Expanded," published on May 27, 2009.) In the U.S., holding company PPL Corp. consists of KU and other vertically integrated utility subsidiary Louisville Gas & Electric Co. (LG&E). In addition, PPL Corp. owns transmission and distribution electric utility PPL Electric Utilities Corp. (PPLEU) and PPL Energy Supply LLC, an unregulated generation subsidiary that has 10,760 megawatts of unregulated generation capacity that consists of well-located, low-cost nuclear and coal plants that are well hedged through 2012. In the U.K., PPL Corp. owns electric distribution networks Western Power Distribution (South West) PLC, Western Power Distribution (South Wales) PLC, Western Power Distribution (West Midlands) PLC, and Western Power Distribution (East Midlands) PLC. Our rating on PPL Corp. reflects the company's mostly regulated utility strategy that will include continuous capital spending and timely cost recovery through various regulatory mechanisms.

The excellent business risk profile incorporates PPL Corp.'s strategy as a mostly regulated public utility holding company. PPL Corp.'s numerous utilities serve 10 million electric customers in the U.K., Pennsylvania, and Kentucky, and 320,000 natural gas distribution customers in Kentucky. The U.K. wires-only distribution utilities have credit-supportive U.K. regulation and no commodity risk because nonaffiliated retail suppliers procure the electricity for retail customers. We expect these U.K. operations to contribute about 30% of PPL Corp.'s consolidated cash flow. The stability of the U.K. cash flows, along with existing utility assets in Kentucky and Pennsylvania, all of which we assess as excellent, will more than offset the business risk profile of PPL Energy's merchant generation, which we assess as satisfactory, resulting in the excellent business profile overall. We expect the merchant generation business to comprise less than 25% of pro forma consolidated cash flows.

KU's consolidated business risk profile, which we consider excellent, reflects the strengths of serving electric customers scattered throughout Kentucky, including those in Lexington. The utility's strengths include relatively predictable utility operations with steady cash flows, constructive cost recovery, and relatively low rates stemming from low-cost coal-fired generation. Although most of its plants burn coal, they meet current environmental requirements, and the significant amount of capital spending needed for environmental compliance through 2015 should be recoverable through rates.

The financial risk profile for KU reflects that of PPL Corp. The consolidated financial profile, which we consider aggressive, reflects adjusted financial measures that are in line with the rating. We expect that financial measures will continue at current levels as the company incorporates full cost recovery of capital spending in operating cash flow. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to remain in line with the rating. For the 12 months ended June 30, 2011, FFO to total debt was 16.5%, total debt to total capital was about 58%, and debt to EBITDA was 4.8x. After reducing cash flow from operations by capital spending and dividends, discretionary cash flow was negative $275 million, indicating a need for external funding. In addition, net cash flow (FFO after dividends) to capital spending was 101%. FFO interest coverage was 4.1x, and the company's dividend payout ratio was 50%. The consolidated adjustments for PPL Corp. include pension-related items, intermediate equity treatment of the junior subordinated notes, and high equity treatment of mandatory convertible securities.

Liquidity

The short-term rating on KU is 'A-2'. The utility's liquidity position reflects that of parent PPL Corp., which we consider adequate under Standard & Poor's liquidity methodology. (We categorize liquidity in five standard descriptors. See "Liquidity Descriptors For Global Corporate Issuers," published on Sept. 28, 2011.)

We base our liquidity assessment on the following factors and assumptions:

- We expect PPL Corp.'s liquidity sources over the next 12 months, including FFO and credit facility availability, to exceed uses by 1.2x. Uses include necessary capital spending, working capital, debt maturities, and shareholder distributions.
- Debt maturities are manageable over the next 12 months.
- We believe liquidity sources would exceed uses by 30% even if EBITDA declined 15%.
- In our assessment, PPL Corp. has good relationships with its banks, and has a good standing in the credit markets, having successfully issued debt during the recent credit crisis.

In our analysis of liquidity over the next 12 months, we assume $6.9 billion of liquidity sources, consisting of FFO and credit facility availability. We estimate liquidity uses of $5 billion for capital spending, maturing debt, working capital, and shareholder distributions.

PPL Corp.'s credit agreements include a financial covenant requiring debt to total capitalization no greater than 65% for PPL Energy Supply and 70% for the U.S. utilities. As of June 30, 2011, the company was in compliance with the covenants.

Debt maturities are manageable through 2014, with $500 million in 2011, $0 in 2012, $737 million in 2013, and $300 million in 2014. However, in 2015, $1.3 billion is due. We expect that the company will refinance many of these debt maturities.

Recovery analysis

We assign recovery ratings to first mortgage bonds (FMBs) issued by investment-grade U.S. utilities, which can result in issue ratings being notched above the corporate credit rating (CCR) on a utility depending on the CCR category and the extent of the collateral coverage. We base the investment-grade FMB recovery methodology on the ample historical record of nearly 100% recovery for secured bondholders in utility bankruptcies and on our view that the factors that supported those recoveries (limited size of the creditor class, and the durable value of utility rate-based assets during and after a reorganization, given the essential service provided and the high replacement cost) will persist in the future. Under our notching criteria, when assigning issue ratings to utility FMBs, we consider the limitations of FMB issuance under the utility's indenture relative to the value of the collateral pledged to bondholders, management's stated intentions on future FMB issuance, as well as the regulatory limitations on bond issuance. FMB ratings can exceed the CCR on a utility by up to one notch in the 'A' category, two notches in the 'BBB' category, and three notches in speculative-grade categories.

KU's FMBs benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of about 1.5x supports a recovery rating of '1+' and an issue rating two notches above the CCR.

Outlook

The stable outlook on KU reflects our expectation that PPL Corp.'s management will focus on its fully regulated utilities and will not increase unregulated operations beyond current levels. The outlook also reflects our expectations that cash flow protection and debt leverage measures will be appropriate for the rating. Specifically, our baseline forecast includes FFO to total debt of around 15%, debt to EBITDA between 4x and 5x, and debt leverage to total capital under 60%, consistent with our expectations for the 'BBB' rating. Given the company's mostly regulated focus, we expect that PPL Corp. will avoid any meaningful rise in business risk by reaching constructive regulatory outcomes and limit its unregulated operations to existing levels. We could lower the ratings if PPL Corp. cannot sustain consolidated financial measures of FFO to total debt of at least 12%, debt to EBITDA below 5x, and debt leverage under 62%. This could occur if market power prices remain weak due to ongoing depressed demand. Although unlikely over the intermediate term, we could raise the ratings if the business profile further strengthens and if financial measures exceed our baseline forecast on a consistent basis, including FFO to total debt in excess of 20%, debt to EBITDA below 4x, and debt to total capital around 50%.

Related Criteria And Research

- Liquidity Descriptors For Global Corporate Issuers, Sept. 28, 2011
- Business Risk/Financial Risk Matrix Expanded, May 27, 2009
- Analytical Methodology, April 15, 2008
- Ratios And Adjustments, April 15, 2008
- Changes To Collateral Coverage Requirements For '1+' Recovery Ratings On U.S. Utility First Mortgage Bonds, Sept. 6, 2007

Table 1

PPL Corp. -- Peer Comparison*

Industry Sector: Energy

	PPL Corp.	FirstEnergy Corp.	Public Service Enterprise Group Inc.	Ameren Corp.
Rating as of Oct. 31, 2011	BBB/Stable/--	BBB-/Stable/--	BBB/Positive/A-2	BBB-/Stable/A-3

Table 1

PPL Corp. -- Peer Comparison* (cont.)

	--Average of past three fiscal years--			
(Mil. $)				
Revenues	5,285.6	13,266.0	11,995.5	7,522.3
Net income from cont. oper.	483.9	1,044.0	1,466.6	452.0
Funds from operations (FFO)	1,560.7	2,675.2	2,494.4	1,836.9
Capital expenditures	1,177.4	2,352.5	1,874.5	1,668.3
Cash and short-term investments	721.6	812.7	290.2	419.7
Debt	8,598.5	17,675.4	8,875.7	9,223.1
Preferred stock	333.3	0.0	53.3	88.7
Equity	4,776.7	8,451.0	8,533.8	7,619.0
Debt and equity	13,375.2	26,126.4	17,409.5	16,842.1
Adjusted ratios				
EBIT interest coverage (x)	2.7	2.4	6.2	3.0
FFO int. cov. (X)	4.8	3.2	6.0	4.6
FFO/debt (%)	18.2	15.1	28.1	19.9
Discretionary cash flow/debt (%)	(1.2)	(2.5)	1.0	(2.8)
Net cash flow/capex (%)	86.6	85.2	97.1	85.0
Total debt/debt plus equity (%)	64.3	67.7	51.0	54.8
Return on common equity (%)	12.7	10.9	17.5	5.6
Common dividend payout ratio (un-adj.) (%)	111.4	64.2	46.0	95.0

*Fully adjusted (including postretirement obligations).

Table 2

Kentucky Utilities Co. -- Financial Summary

Industry Sector: Electric	--Fiscal year ended Dec. 31--	
	2010	**2009**
Rating history	BBB+/Stable/A-2	BBB+/Stable/A-2
(Mil. $)		
Revenues	1,511.0	1,355.0
EBITDA	511.2	423.2
Operating income	366.2	290.2
Interest Expense	87.0	86.9
Net income from continuing operations	175.0	133.0
Funds from operations (FFO)	391.9	291.7
Capital expenditures	384.2	522.4
Free operating cash flow	(1.3)	(260.7)
Dividends paid	50.0	0.0
Discretionary cash flow	(51.3)	(260.7)
Debt	2,059.8	1,913.0
Preferred stock	0.0	0.0
Equity	2,691.0	1,952.0

Table 2

Kentucky Utilities Co. -- Financial Summary (cont.)		
Debt and equity	4,750.8	3,865.0
Adjusted ratios		
EBITDA margin (%)	33.8	31.2
EBITDA interest coverage (x)	5.9	4.9
EBIT interest coverage (x)	4.2	3.4
FFO int. cov. (x)	5.4	4.1
FFO/debt (%)	19.0	15.3
Free operating cash flow/debt (%)	(0.1)	(13.6)
Discretionary cash flow/debt (%)	(2.5)	(13.6)
Net cash flow/capex (%)	89.0	55.8
Debt/EBITDA (x)	4.0	4.5
Debt/debt and equity (%)	43.4	49.5
Return on capital (%)	7.7	7.2
Return on common equity (%)	7.5	7.2
Common dividend payout ratio (un-adj.) (%)	28.6	0.0

Table 3

Reconciliation Of Kentucky Utilities Co. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)

--Fiscal year ended Dec. 31, 2010--

Kentucky Utilities Co. reported amounts

	Debt	Shareholders' equity	Revenues	EBITDA	Operating income	Interest expense	Cash flow from operations	Cash flow from operations	Dividends paid	Capital expenditures
Reported	1,841.0	2,691.0	1,511.0	495.0	350.0	78.0	372.0	372.0	50.0	379.0
Standard & Poor's adjustments										
Operating leases	25.0	--	--	1.2	1.2	1.2	6.3	6.3	--	5.2
Postretirement benefit obligations	113.8	--	--	15.0	15.0	6.0	4.6	4.6	--	--
Asset retirement obligations	35.1	--	--	--	--	--	--	--	--	--
Reclassification of nonoperating income (expenses)	--	--	--	--	1.0	--	--	--	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	--	9.0	--	--
Debt - Accrued interest not included in reported debt	8.0	--	--	--	--	--	--	--	--	--
Debt - Other	36.9	--	--	--	--	--	--	--	--	--
Interest expense - Other	--	--	--	--	--	1.8	--	--	--	--

Table 3

Reconciliation Of Kentucky Utilities Co. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $) (cont.)										
Total adjustments	218.8	0.0	0.0	16.2	17.2	9.0	10.9	19.9	0.0	5.2
Standard & Poor's adjusted amounts										
	Debt	Equity	Revenues	EBITDA	EBIT	Interest expense	Cash flow from operations	Funds from operations	Dividends paid	Capital expenditures
Adjusted	2,059.8	2,691.0	1,511.0	511.2	367.2	87.0	382.9	391.9	50.0	384.2

Ratings Detail (As Of November 1, 2011)	
Kentucky Utilities Co.	
Corporate Credit Rating	BBB/Stable/A-2
Senior Secured (3 Issues)	A-
Senior Secured (5 Issues)	A-/A-2
Senior Secured (2 Issues)	A-/NR
Corporate Credit Ratings History	
15-Apr-2011	BBB/Stable/A-2
02-Mar-2011	BBB/Watch Neg/A-3
27-Mar-2009	BBB+/Stable/A-2
25-Mar-2009	BBB+/Stable/NR
Business Risk Profile	Excellent
Financial Risk Profile	Aggressive
Related Entities	
LG&E and KU Energy LLC	
Issuer Credit Rating	BBB/Stable/--
Senior Unsecured (3 Issues)	BBB-
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB/Stable/A-2
Senior Secured (2 Issues)	A-
Senior Secured (11 Issues)	A-/A-2
Senior Secured (1 Issue)	A-/NR
PPL Corp.	
Issuer Credit Rating	BBB/Stable/NR
Junior Subordinated (3 Issues)	BB+
Senior Unsecured (1 Issue)	BBB-
PPL Electric Utilities Corp.	
Issuer Credit Rating	BBB/Stable/A-2
Commercial Paper	
Local Currency	A-2
Preference Stock (1 Issue)	BB+
Senior Secured (9 Issues)	A-
PPL Energy Supply LLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (13 Issues)	BBB

Ratings Detail (As Of November 1, 2011) (cont.)

PPL Montana LLC	
Senior Secured (1 Issue)	BBB-/Positive
PPL WEM Holdings PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (1 Issue)	BBB-
PPL WW Holdings Ltd.	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (2 Issues)	BBB-
Western Power Distribution (East Midlands) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (4 Issues)	BBB
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (3 Issues)	BBB
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (4 Issues)	BBB
Western Power Distribution (West Midlands) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (3 Issues)	BBB

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

STANDARD &POOR'S

Global Credit Portal®
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March 2, 2012

Kentucky Utilities Co.'s New Commercial Paper Program Assigned 'A-2' Rating

Primary Credit Analyst:
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NEW YORK (Standard & Poor's) March 2, 2012--Standard & Poor's Ratings Services said today it assigned its 'A-2' short-term rating to Kentucky-based electric utility Kentucky Utilities Co.'s $250 million 4(2) commercial paper program. The company expects to use the new commercial paper program for working capital needs and other corporate purposes. Backing the program will be the utility's existing $400 million revolving credit facility that terminates Oct. 19, 2016.

(For the corporate credit rating rationale on Kentucky Utilities Co. (BBB/Stable/A-2), see the summary analysis published on Nov. 1, 2011, on RatingsDirect.)

RELATED CRITERIA AND RESEARCH

- Liquidity Descriptors For Global Corporate Issuers, Sept. 28, 2011
- Business Risk/Financial Risk Matrix Expanded, May 27, 2009
- Analytical Methodology, April 15, 2008

RATINGS LIST

Kentucky Utilities Co.	
Corporate Credit Rating	BBB/Stable/A-2
New Rating	
$250 mil 4(2) commercial paper program	A-2

Complete ratings information is available to subscribers of RatingsDirect on the Global Credit Portal at www.globalcreditportal.com. All ratings affected by this rating action can be found on Standard & Poor's public Web site at www.standardandpoors.com. Use the Ratings search box located in the left column.

STANDARD &POOR'S

Global Credit Portal®
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May 8, 2012

Summary:
Kentucky Utilities Co.

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Summary:
Kentucky Utilities Co.

Credit Rating: BBB/Stable/A-2

Rationale

Standard & Poor's Ratings Services bases its rating on vertically integrated electric utility Kentucky Utilities Co. (KU) on the consolidated credit profile of ultimate parent PPL Corp., which includes what we consider to be an "excellent" business risk profile and "aggressive" financial risk profile under our criteria. In the U.S., PPL Corp. consists of electric transmission and distribution utility PPL Electric Utilities Corp. (PPLEU) and intermediate holding company LG&E and KU Energy LLC-owned vertically integrated utility subsidiaries KU and Louisville Gas & Electric Co. (LG&E). In addition, PPL Corp. owns PPL Energy Supply LLC, an unregulated generation subsidiary that has about 11,500 megawatts of capacity consisting of well-located, low-cost nuclear and coal plants that are well hedged through 2013. In the U.K., PPL Corp. owns electric distribution networks Western Power Distribution (South West) PLC, Western Power Distribution (South Wales) PLC, Western Power Distribution (West Midlands) PLC, and Western Power Distribution (East Midlands) PLC. Our rating on PPL Corp. reflects a mostly regulated utility strategy that will include continuous capital spending and timely cost recovery through various regulatory mechanisms.

The excellent business risk profile incorporates PPL Corp.'s strategy as a mostly regulated public utility holding company. PPL Corp.'s numerous utilities serve 10 million electric customers in the U.K., Pennsylvania, and Kentucky, and 320,000 natural gas distribution customers in Kentucky. The U.K. wires-only distribution utilities have credit-supportive U.K. regulation and no commodity risk because nonaffiliated retail suppliers procure the electricity for retail customers. We expect these U.K. operations to contribute about 30% of PPL Corp.'s consolidated cash flow. The stability of the U.K. cash flows, along with existing utility assets in Kentucky and Pennsylvania, all of which we assess as excellent, will more than offset the business risk profile of PPL Energy Supply's merchant generation, which we assess as "satisfactory," resulting in the excellent business profile overall. We expect the merchant generation business to contribute less than 25% of pro forma consolidated cash flows.

KU's consolidated business risk profile, which we consider excellent, reflects the strengths of serving electric customers scattered throughout Kentucky, including those in Lexington. The utility's strengths include relatively predictable utility operations with steady cash flows, constructive cost recovery, and relatively low rates stemming from low-cost coal-fired generation. Although most of its plants burn coal, they meet current environmental requirements, and the significant amount of capital spending needed for environmental compliance through 2015 should be recoverable through rates.

The financial risk profile for KU reflects that of PPL Corp. The consolidated financial profile, which we consider aggressive, reflects adjusted financial measures that are in line with the rating. We expect that financial measures will remain at current levels as the company incorporates full cost recovery of capital spending in operating cash flow. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to remain in line with the rating. For the 12 months ended Dec. 31, 2011, FFO to total debt was about 16%, total debt to total capital was about 58%, and debt to EBITDA was 4.3x. After reducing cash flow from operations by capital spending and dividends, discretionary cash flow was negative $279 million, indicating a need for external funding. In addition, net cash flow (FFO after dividends) to capital spending was 86%, further indicating a need for external funding. FFO interest coverage was 4.0x, and the company's dividend payout ratio was 52%. The consolidated adjustments for PPL Corp. include pension-related items, intermediate equity treatment of the junior subordinated notes, and high equity treatment of mandatory convertible securities.

Liquidity

The short-term rating on KU is 'A-2'. The utility's liquidity position reflects that of parent PPL Corp., which we consider "adequate" under Standard & Poor's liquidity methodology.

We base our liquidity assessment on the following factors and assumptions:

- We expect PPL Corp.'s liquidity sources over the next 12 months, including cash, FFO, and credit facility availability, to exceed uses by about 1.2x. Uses include necessary capital spending, working capital, debt maturities, and shareholder distributions.
- Debt maturities are manageable over the next 12 months.
- We believe liquidity sources would exceed uses by 30% even if there were a 15% to 20% decline in FFO.
- In our assessment, PPL Corp. has good relationships with its banks, and has a good standing in the credit markets, having successfully issued debt during the recent credit crisis.

In our analysis of liquidity over the next 12 months, we assume $8 billion of liquidity sources, consisting of FFO and credit facility availability. We estimate liquidity uses of $5 billion for capital spending, maturing debt, working capital, and shareholder distributions.

PPL Corp.'s credit agreements include a financial covenant requiring debt to total capitalization no greater than 65% for PPL Energy Supply and 70% for the U.S. utilities. As of Dec. 31, 2011, the company was in compliance with the covenants. Debt maturities are manageable through 2014, with none in 2012, $737 million in 2013, and $300 million in 2014. However, in 2015, $1.3 billion is due, and in 2016 $810 million is due. We expect that the company will refinance many of these debt maturities.

Recovery analysis

We assign recovery ratings to first-mortgage bonds (FMBs) issued by investment-grade U.S. utilities, which can result in issue ratings being notched above the corporate credit rating (CCR) on a utility depending on the CCR category and the extent of the collateral coverage. We base the investment-grade FMB recovery methodology on the ample historical record of nearly 100% recovery for secured bondholders in utility bankruptcies and on our view that the factors that supported those recoveries (limited size of the creditor class, and the durable value of utility rate-based assets during and after a reorganization, given the essential service provided and the high replacement cost) will persist. Under our notching criteria, when assigning issue ratings to utility FMBs, we consider the limitations of FMB issuance under the utility's indenture relative to the value of the collateral pledged to bondholders, management's stated intentions on future FMB issuance, as well as the regulatory limitations on bond issuance. FMB ratings can exceed the CCR on a utility by up to one notch in the 'A' category, two notches in the 'BBB' category, and three notches in speculative-grade categories.

KU's FMBs benefit from a first-priority lien on substantially all of the utility's real property owned or subsequently acquired. Collateral coverage of about 1.5x supports a recovery rating of '1+' and an issue rating two notches above the CCR.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-13

Responding Witness: Daniel K. Arbough

Q1-13. Please provide all bond rating agency reports, including credit ratings and bond ratings, for PPL Corporation from 2008 through the most current date.

A1-13. See attached.

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Global Credit Portal®
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January 22, 2008

PPL Corp.

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PPL Corp.

Major Rating Factors

Strengths:

- A large portion of gross margin is under contract for next few years, providing a measure of stability to cash flow generation;
- The contract to supply energy for PPL Electric Utilities Corp.'s provider of last resort (POLR) obligation has favorable terms and extends through 2009;
- The current high price level in PJM and Mid-Columbia markets provides adequate cash flow and increasing use of merchant generation assets;
- The merchant markets are likely to stay strong in the medium term; and
- There is some operating diversity in the merchant generation fleet, with plants in the Northwest and the eastern U.S.

Corporate Credit Rating
BBB/Stable/NR

Weaknesses:

- The exposure to market price volatility, as contracts expire and must be renewed at prevailing market prices;
- The uncertainty regarding the transition to competitive markets in Pennsylvania;
- The current contracts place load-following, volume, and price risk on subsidiary PPL Energy Supply LLC;
- The proposed capital-spending program will lead to negative discretionary cash flow over next few years, with no regulatory support to recover investment; and
- The financial policy is aggressive.

Rationale

PPL Corp. is an Allentown, Pa.-based diversified energy company, which owns regulated and unregulated businesses. The U.S.-based regulated businesses consist of PPL Electric Utilities Corp. (PPLEU; A-/Stable/A-2), an electricity distribution company for 1.4 million customers in central and eastern Pennsylvania, PPL Gas Utilities Corp. (not rated), a gas distribution company in Pennsylvania for 77,000 customers, and Penn Fuel Propane Co. (not rated), a small propane business serving 34,000 customers. PPL Gas Utilities and Penn Fuel will be sold shortly, by the second half of 2008.

PPL also owns PPL Energy Supply LLC (BBB/Stable/A-2), an intermediate holding company for regulated and unregulated operations. PPL Energy Supply's regulated operations are housed under PPL Global Inc. (not rated), which provides electric delivery service in the U.K. PPL Global's significant investment is through Western Power Distribution Holdings Ltd. (WPD; BBB-/Stable/A-3), a U.K.-based electricity transmission and distribution (T&D) subsidiary providing service to 2.6 million users. WPD companies accounted for 29,000 gigawatt-hours (GWh) of electricity deliveries. PPL Global's other significant international investments included Emel, a Chilean electricity distribution company, Elfec, a Bolivian electricity distribution company, and Del Sur, an electricity distribution company, until PPL Global sold the companies in 2007 for a total consideration of about $850 million.

The unregulated operations of PPL Energy Supply include PPL EnergyPlus LLC, an electricity and gas marketer for owned generation and purchased power, PPL Generation LLC (not rated), which owns and operates PPL's 9,907

MW of merchant generation fleet, and PPL Montana LLC (not rated), a project-financed subsidiary with about 1,289 MW of merchant generation assets. This reflects a derating of about 60 MW of lost capacity from scrubber installation and the close of two 150 MW old fossil plants. However, about 355 MW of increased capacity from planned uprate projects are currently underway and should be completed by 2011.

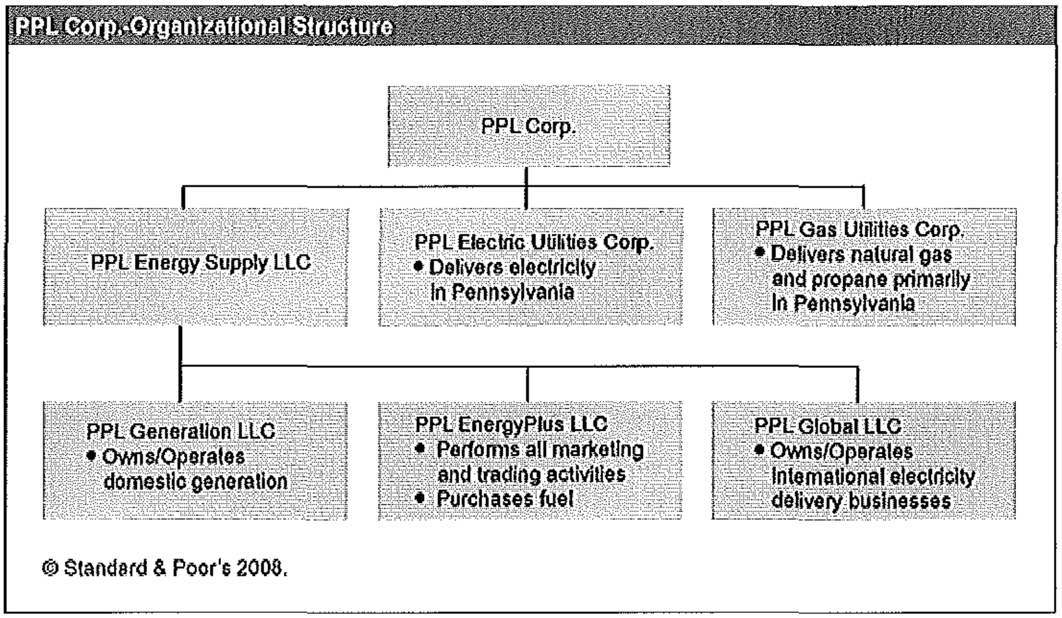
Liquidity

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPL's unregulated generation subsidiary, PPL Energy Supply, excluding WPD, has strong liquidity, with $3.9 billion in credit facilities, $3.7 billion of which matures beyond 2010. As of Sept. 30, 2007, there was $565 million in LOCs and draws under these facilities, leaving more than $3.3 billion available. In addition, PPL Energy Supply had about $220 million in cash and equivalents. Debt maturities at PPL Capital Funding and PPL Energy Supply should be manageable for the next few years, with only a $201 million meaningful maturity in 2009 at PPL Capital Funding.

Based on Standard & Poor's liquidity adequacy ratio, which records the effects of an adverse credit and market event on a company's primary liquidity sources, PPL's coverage has improved to more than 1.6x, largely due to the increased availability under credit facilities. The figure assumes a downside scenario where PPL would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for adverse movement in power and gas prices.

Outlook

The stable outlook on PPL reflects continuing strong operating performance and an improved financial risk profile. However, we believe the company's financial policy could now focus on shareholder value creation. This policy is not negative for credit quality if management also incorporates adequate bondholder protection measures. The ratings could be pressured if PPL's consolidated financial risk profile does not support credit metrics appropriate for the rating from a potential moderation in natural gas prices. An outlook revision to positive, currently not under consideration, would depend on further clarity about the future of competitive markets in Pennsylvania. An outlook revision will also be predicated on further expected improvement in the financial risk profile, including the ability to generate free cash flow, and from continuation of business risk moderation strategies that mitigate cash flow.



Rating Methodology

The ratings on PPL reflect the credit quality of PPL Energy Supply, PPL Gas Utilities, the Latin American investments, and the dividends (quality of cash flow) from PPLEU and WPD. Due to various degrees of legal and structural insulation, Standard & Poor's treats PPLEU and WPD as equity investments in their analysis. As a result, we incorporate only their expected dividend streams into the analysis, and we expect them to provide about 20% of total cash flow through 2009. Dividends from PPLEU and WPD are considered residual cash flows, assuming all available cash flow will first be used to satisfy company needs before any cash is allocated to parent PPL.

On account of legal ring-fencing provisions, PPLEU is rated on a stand-alone basis. However, due to significant business interrelations, its default risk is insulated, and not isolated, from effects of PPL. Consequently, we have determined that the utility can be rated at most two notches above PPL. Our approach also deconsolidates WPD, given ring-fencing and the fact that the company is in the U.K.

While PPL Montana is project financed and its debt is nonrecourse to the parent, PPL has managed PPL Montana as part of its core operations and has provided some financial support through a $100 million line of credit. As a result, we consider a measure of parental support, in addition to PPL Montana's stand-alone credit profile, when assigning PPL Montana's rating.

Business Risk Profile

Under the restructuring plan that the Pennsylvania Public Utilities Commission (PPUC) approved in 1998, PPLEU became an electricity T&D company, with the generation assets housed in a separate unregulated entity. The PPUC required PPLEU to operate as the POLR supplier at least until 2010, with the power costs passed through to ratepayers. PPLEU has an attractive service territory that has experienced reasonable customer and load growth of about 1.5% annually. The company's strong business position benefits from low operating risk and its position as the incumbent utility provider.

PPL Energy Supply operates about 11,196 MW of predominantly base load coal and nuclear merchant generation assets in the PJM (8,869 MW), PJM West (540 MW), Mid-Columbia (1,289 MW), New England Power Pool (339 MW), and New York Independent System Operator (NYISO; 159 MW) markets. We expect PPL Energy Supply's base load generation assets to benefit in the medium term from increasing load factors and the fact that gas increasingly sets the marginal cost of power in the PJM and Mid-Columbia markets. Plants in Mid-Columbia and the PJM are close to coal supplies.

About 70% of total expected production (and about 45% of PPL Energy Supply's margins) of about 56,000 GWh is committed to serve PPLEU's POLR load needs until 2009. Although fuel costs, primarily coal, are expected to increase by 5% to 6% between 2007-2010, the POLR contract has annual price escalators, which include a significant 8% price increase in 2006. Current full-requirements prices at $48.4 per megawatt-hour (MWh) will increase to $50.2 per MWh in 2009, the final year of the POLR contract. In contrast, wholesale around-the-clock prices were about $58-$63 per MWh in 2007. Full-requirements prices can add an incremental 50% premium to wholesale prices, resulting in POLR contracts pricing significantly below market.

Outside of its contract with the utility affiliate, PPL remains a large merchant generator. The company's strategy is to enter into short- to medium-term contracts for the output of this merchant generation. Smaller portions of PPL Energy Supply's projected output (450 MW) are committed to NorthWestern Corp. (BB+/Positive/--) until mid-2014, and to various requirements contracts with other T&D companies. PPL Energy Supply has existing requirements contracts with Connecticut Light & Power Co. (BBB/Stable/--) through the end of 2008 and the New Jersey basic generation service (BGS) through 2009. It has also won requirements contracts in the erstwhile auction market in Illinois, and the auction markets in Maryland and Delaware for various volumes and periods through 2009. PPL Energy Supply's generation is currently more than 90% through 2009 in the East and about 85% for its western fleet. However, some of these new requirements contracts can result in larger liquidity requirements, if prices move away from the prices contracted and because the company now supplies more energy than it economically generates (more bilateral purchases).

To ensure a measure of cash flow stability, the company also hedges fuel requirements, on a rolling basis, to match its forward sales. Coal is fully hedged for 2007 at levels that match power hedges through 2009. Still, PPL Energy Supply is not as highly hedged on fuel for its eastern production as some of its peers. While this is not an immediate issue, coal prices have been volatile in the past, rising as much as 12% in 2005 over 2004. The company maintains strong sourcing availability and coal supplies come from five diverse regions. The company also signed a contract that will provide one-third of its eastern coal requirement through 2018 and provide fuel supply stability. Nuclear fuel is fully hedged during the next three years.

Although the bulk of total projected margin is under contract for the next three years, the hedges roll off in the outer years, indicating the need for PPL Energy Supply to constantly enter into new contracts, thus exposing the company to volatile wholesale market prices. While tightening reserve margins enabled PPL Energy Supply to increase hedges in contracts for 2010 at margins consistent with its business plans, margins can erode if wholesale power prices decline and contracts renew at lower levels. Furthermore, these contracts expose PPL Energy Supply's margins to market risks, including but not limited to load shaping, fuel risks, and volume risks. With PPLEU's POLR supply contract expiring at year-end 2009, PPL Energy Supply's merchant exposure will lead to a gradual increase in business risk, resulting in greater volatility in cash flow.

However, in the short- to medium-term, the environment remains favorable for base load merchant assets (which dominate PPL Energy Supply's generation fleet) as PJM market prices have remained firm due to demand growth outpacing new generation supply sources. The shrinking reserve margins create potential value for PPL Energy Supply's base load fleet, as the growing constrained region spreads further west. Auction results of the latest reliability pricing model (RPM) reflect the increasing capacity deficit with prices in PPL Energy Supply's Mid-Atlantic Area Council and Allegheny Power Service (MAAC/APS) region increasing to $191 per MW-day (or about $16 per MWh assuming a 50% load factor) for 2009-2010 from $40.8 per MW-day for 2007-2008. There could be cash flow enhancement for PPL Energy Supply's fleet, as only about 45% of capacity is hedged in 2010. If the company deploys cash from operations in a credit-supportive manner, financial measures could support higher business risk and ratings may even improve.

In May 2007, PPL received approval from the PPUC for six regularly scheduled procurements (RFPs are held twice a year in March and September) for 2010 POLR supply for three years. We believe the advance approval is credit supportive for PPLEU, as it eases supply procurement and will also address merchant risks for PPL Energy Supply. This is because PPL Energy Supply's assets are best positioned to serve PPLEU's POLR needs. The results of the first two RFPs for 850 MW have returned a full-requirements price of about $100 per MWh, significantly higher than the rates embedded in the nine-year POLR contract through 2009 (see table 1).

Table 1

PPL Corp. -- Residential And Small Customer (Load Following Component Example)*

Full-requirements price (including taxes)	2009	2010	
	$/MWh	% of total	
ATC Energy		63	69
Load shape/congestion		6	7
Volumetric risk		4.3	5
Migration risk		0.9	1
Capacity price¶		12.5	14
Ancillary		3.5	4
Green charge/credit risk		1.7	2
Net full requirements/load following§	48.1	91.9	100
Line losses	4.1	8	
4.4% gross receipt tax adder	2.1	4	
Full-requirements price (including taxes)	54.3	103.9	
Percent year-over-year increase			91

*Illustration assumes remaining four RFPs price at similar levels as the first two RFPs. ¶Estimate based on $150 per MW-day and a load factor of 50%. §Full-requirements price for 2009 is all-inclusive based on the negotiated provider of last resort contract price. MWh -- Megawatt-hour. Source: PPL Presentation (Nov 5, 2007; Break-out of components are Standard & Poor's estimates.)

Auction results for the New Jersey BGS in the neighboring eastern MAAC region are similar for load-following-supply obligations. Of particular note is the increase in the full-requirements premium, which has increased to about 65% for wholesale energy prices in 2007 from about 45% in 2005. The spike is from increasing congestion, and an increase in capacity prices/RPM and higher volatility in market prices caused by the higher-peaking nature of demand.

PPL's business profile is tempered by uncertainty about the future of competitive markets in Pennsylvania. While Pennsylvania legislation and the PPUC have generally supported deregulation, and there has been no significant opposition to the transition to competitive markets (there is one rate cap (HB 1984) proposed), uncertainty could arise as Standard & Poor's considers a 30%-35% increase in customer bills significant. So far, expiring competitive transition charges (CTC) mute the increasing supply component's effect on the overall customer charge. PPLEU has also filed a plan that allows customers to slowly increase rates to market prices by making additional payments between mid-2008 through 2009. The plan, if approved, would result in annual bill increases of about 7% in 2008-2012, instead of a one-time increase in 2010 (see table 2). However, there are no definitive plans for supply procurement after 2010.

Table 2

PPL Corp. -- Residential Customer (1,000 kWh Per Month)

Rates	2009 ($)	Pro forma 2010 ($)	Year-over-year increase (%)
Distribution	30.89§	30.1§	
Transmission	6.5	4.81¶	
Energy and capcity	52.89	100.69*	90.4
Competitive transition charges	11.59	--	
State taxes	0.07	0.12	
Total bill	101.94	135.72	33.1

*Based on initial auction price of $96.3 per megawatt-hour (MWh) for 850 MWs in July 2007 and $105.08 per MWh in Oct. 2007. ¶Ancillaries included in energy and capacity charge. §Assumes a 4.7% change as a result of 2007 rate case. kWh -- Kilowatt-hour. Source: Standard & Poor's estimates.

In February 2007, Pennsylvania Governor Edward Rendell proposed a special energy session which contained initiatives to address POLR issues. Retail customers could elect to phase-in for three years any rate increase approved by the PPUC. Also, POLR providers would be required to obtain a least-cost portfolio of supply by purchasing power on the spot market and through contracts of varying lengths. We expect that the strategy details, including the cost deferrals, interest recovery for the customer rate phase-in program, and the timing of approval for POLR supply portfolios will be assigned to the PPUC. Other agenda items include the use of alternative energy sources, energy conservation, and demand-side management.

PPL Energy Supply's strategy relies significantly on the operating performance of its merchant generation assets, as out-of-service units expose PPL Energy Supply to open-market purchases to meet its contractual obligations. Consequently, the company requires considerable capital expenditures to ensure efficient and reliable operation. However, when a fly ash leak occurred at the coal-fired, 300 MW Martin's Creek unit that required an outage of close to five months, and was subsequently shut down permanently, PPL Energy Supply's generation assets demonstrated good reliability and availability, with equivalent availability of around 90%. Although the fleet will also lose about 60 MW of capacity from derating after the scrubbers are installed, about 350 MW of uprating projects will result in increased generation MWs by 2011.

Consistent with its view of coal-fired generation, PPL believes that the market for emissions will remain tight and that installing emissions control equipment is economically more advantageous than using emissions allowances. Also, in anticipation of stricter emissions standards, PPL Energy Supply is spending a significant 48% of its $2.8 billion supply-related capital expenditures for 2006-2008 on emissions control equipment for its larger coal-fired units, Brunner Island and Montour (at $360-$390 per kW on about 3,000 MW). The scrubbers are expected to be on budget and on schedule. As the generation assets are unregulated, PPL Energy Supply cannot recover any of this investment through regulated means. Other than relying on sustained high market prices to fund a portion of its capital-spending plans, PPL Energy Supply's plan also considers high emissions-allowance prices and the use of unneeded allowances as additional revenue sources, once the coal-fired plants are fully scrubbed. The company remains overcompliant on its emissions and generates substantial emission credits in excess of requirements post-second-quarter 2009, when all planned scrubbers are in service.

WPD has two major operating subsidiaries, Western Power Distribution (South West) PLC (WPD South West; BBB+/Stable/A-2) and Western Power Distribution (South Wales) PLC. (WPD South Wales; BBB+/Stable/A-2) that distribute electricity to more than 2.6 million customers. The distribution companies have strong business risk profiles that benefit from transparent regulation, a large, mostly residential customer base that provides for revenue and cash flow stability, and because they hold the monopoly on electricity distribution. Margins have improved from market stability, 1% demand growth, and favorable customer mix. The U.K.'s regulatory environment is considered transparent, and in late 2004, the companies received a favorable rate determination for the next five-year rate cycle. The utilities receive revenue recovery on a formula of "RPI minus X", where RPI is the retail price index (a measure of inflation) and "X" is an efficiency factor. Despite the favorable regulatory outcome at the end of 2004, WPD's financial metrics, along with those of its subsidiaries, are expected to remain low but stable. PPL's strategy is to receive dividends from WPD while providing a minimal level of support.

We analyze WPD on a stand-alone basis and recently affirmed its ratings at 'BBB-'. The ratings on WPD South Wales and WPD South West are notched up from those on PPL, due to their supportive covenants and corporate government arrangements, geographic separation, and the U.K. regulatory environment. The ratings on related holding companies WPD Holdings and Western Power Distribution Holdings LLP (WPD LLP; collectively with WPD South West and WPD South Wales, WPD; BBB-/Stable/A-3) are derived from the ratings on the operating companies. They are, however, differentiated by additional risks at the holding company. The lower ratings on WPD Holdings and WPD LLP reflect that only WPD's licensed and regulated operating companies benefit from regulatory protection and that debtholders at the holding company have greater exposure to nonpayment risk. This is because they have only secondary access to regulated operating cash flows.

PPL Montana, a subsidiary of PPL Energy Supply, supplies NorthWestern with 450 MW at an average of $32 per MWh through July 2007. The below-market nature of the contract paved the way for an extension. While pricing for the supply will be materially higher and start around $45, and increase to nearly $53 per MWh by 2014, the volumes under contract will be lower compared with the current contract through 2007. Under the terms of the new contract, PPL Montana is providing varying supply, from a high of 325 MW on-peak, in 2007, down to 200 MW on-peak in 2014.

Profitability

PPL Energy Supply's portfolio performance largely drives PPL's profitability. PPL's profitability is projected to grow to about 90% of cash flow by 2010 from the current 80%. PPL Energy Supply works to ensure margin and cash flow stability by entering into short- to intermediate-term contracts for the expected output of its plants, while hedging a large portion of the fuel to be used.

Financial Risk Profile

Accounting

Due to various degrees of legal and structural insulation, PPLEU and WPD are treated as equity investments in our analysis. As a result, we analyze PPL's credit measures after deconsolidating PPLEU and WPD from PPL, eliminating nearly $1.37 billion of PPLEU debt, $605 million of securitized debt pertaining to transition bonds issued at PPL Transition Bond Co., and about $2.45 billion of debt at the WPD companies.

As of Sept. 30, 2007, PPL had $369 million associated with retiring long-lived assets as a liability in its consolidated balance sheet, as required under SFAS 143 (accounting for asset retirement obligations). Of that amount, $276 million relates to accrued nuclear decommissioning expenses for PPL Energy Supply's 90% interest in the Susquehanna station. The total fair value of the related nuclear plant decommissioning trust fund was $558 million as of Sept. 30, 2007. As of year-end 2005, PPL Energy Supply's share of the total estimated cost of decommissioning was about $936 million, measured in 2002 dollars.

PPL enters into various derivative contracts to hedge against the variability of expected cash flows associated with the generating units, movements in interest rates, and exposure to foreign currency. All derivative contracts that are subject to the SFAS 133 requirements and qualify as hedges, are reflected on the balance sheet at their fair value. PPL's nontrading commodity derivative contracts, classified as either as hedge or economic, mature at various times through 2012. The nontrading economic category includes transactions that address a specific risk but are ineligible for hedge accounting. While the mark-to-market effect of unrealized losses on economic hedges of energy wholesale contracts can erode earnings, these are economically neutral because of offsetting gains on the underlying accrual positions. These gains are recognized in the future.

PPL Energy Supply's subsidiary, PPL Montana, leases a 50% interest in Colstrip Units 1 and 2 and a 30% interest in Unit 3, under four 36-year noncancelable operating leases. These operating leases are not recorded on PPL Energy Supply's balance sheet. Therefore, Standard & Poor's capitalizes these leases, resulting in the addition of about $237 million of off-balance-sheet debt equivalent.

Corporate governance/risk tolerance/financial policies

Standard & Poor's views PPL's financial policy as aggressive from a bondholder's perspective, due to management's emphasis on earnings per share growth and its stated intent to increase dividend payouts and repurchase equity. With a number of peers using free cash flow to create shareholder value, we believe that PPL has a similar focus, from a relative value perspective. Despite being free cash flow negative in 2006-2007, its expectation to remain so through 2009, and its substantial capital-expenditure program, management decided to use about $713 million of the $850 million from the Latin American sale proceeds to buy back stock. The proposed capital spending increase to address environmental needs will necessitate external funding, at least in the intermediate term, which we expect to be debt funded.

Cash flow adequacy

PPL Energy Supply's portfolio performance largely drives PPL's cash flow. PPL Energy Supply's portfolio performance currently accounts for about 80% of cash flow (assuming WPD and PPLEU are equity investments). While PPL Energy Supply's strategy benefits from an environment of rising power prices, margins can also erode if wholesale power prices begin to decline and contracts are renewed at lower levels. Nevertheless, over the intermediate term, more than 45% of total margins remain under contract through the POLR supply contract with affiliate PPLEU, which should provide a stable cash flow source, especially in light of customer and load growth, as well as the agreed-on price increases.

PPL's cash flow also benefits from PPLEU and WPD dividends. These dividends are expected to contribute about 20% of total cash flow. While cash flow generation is expected to benefit from all these factors, PPL expects that it will be cash flow negative after dividends and capital spending for the next three years due to PPL Energy Supply's planned $3 billion capital-spending program. However, a meaningful 30% of supply spending for 2008-2010 is discretionary.

Credit-protection measures for the year-ended December 2006 have improved with adjusted funds from operations (FFO) to interest coverage of more than 4x, FFO to total debt of about 24%, and debt leverage of just over 56% (WPD and PPLEU are treated as equity investments). Standard & Poor's expects the financial risk profile to improve through 2009, with adjusted FFO to interest coverage averaging about 5x and FFO to total debt around 25%. These figures are more suitable for the ratings, given the current business risk profile. Even so, PPL will have near-term negative free cash flow due to its capital spending and will fund the deficit from debt financing. PPL will also need to generate a level of cash flow consistent with its increasing debt burden and also internally fund part of its investment program in a way that preserves quality. Consequently, we consider FFO to total debt and net cash flow to capital expenditures as key ratios that define the company's credit quality. We expect that net cash flow to capital expenditures will recover only in 2009. However, we estimate that about 30% of capital spending through 2010 is discretionary. The company estimates strong improvement in its financial ratios in 2010 largely from repricing of its generation portfolio after the rate cap period with PPLEU concludes. However, the business profile will also become riskier, as PPL Energy Supply's contribution would increase to more than 80%. Because PPL Energy has contracted almost 50% of its power generation for 2010, and based on the outcome of the RFPs for PPLEU, credit measures could significantly improve.

Capital structure/asset protection

Adjusted debt to capital remains aggressive for the current rating at about 56% as of year-end 2006. Improved debt leverage will likely result from retained earnings and not from decreased debt levels, as PPL will rely on debt financing for part of its planned capital spending.

Ratings Detail (As Of January 22, 2008)*	
PPL Corp.	
Corporate Credit Rating	BBB/Stable/NR
Preference Stock	
Local Currency	BB+
Senior Unsecured	
Local Currency	BBB-
Corporate Credit Ratings History	
13-May-2004	BBB/Stable/NR
06-Sep-2002	BBB/Negative/NR
29-May-2002	BBB/Stable/NR
Financial Risk Profile	Aggressive
Related Entities	
PPL Electric Utilities Corp.	
Issuer Credit Rating	A-/Stable/A-2
Commercial Paper	
Local Currency	A-2

Ratings Detail (As Of January 22, 2008)* (cont.)	
Preferred Stock	
Local Currency	BBB
Senior Secured	
Local Currency	A-
PPL Energy Supply LLC	
Issuer Credit Rating	BBB/Stable/A-2
Commercial Paper	
Local Currency	A-2
Senior Unsecured	
Local Currency	BBB
Western Power Distribution Holdings LLP	
Issuer Credit Rating	BBB-/Stable/A-3
Preferred Stock	
Foreign Currency	BB
Senior Unsecured	
Foreign Currency	BBB-
Western Power Distribution Holdings Ltd.	
Issuer Credit Rating	BBB-/Stable/A-3
Senior Unsecured	
Foreign Currency	BBB-
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB+/Stable/A-2
Senior Unsecured	
Local Currency	BBB+
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB+/Stable/A-2
Senior Unsecured	
Local Currency	BBB+

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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October 13, 2008

Summary:
PPL Corp.

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Summary:

PPL Corp.

Credit Rating: BBB/Stable/NR

Rationale

The ratings on diversified energy company, PPL Corp., reflect the business and financial risk profile of supply subsidiary PPL Energy Supply. The business profile now reflects fully the sale of PPL's major investments in Latin American transmission and distribution companies and the recent sale of its gas distribution system and gas utility. PPL Energy Supply's business risk profile is strong (business positions of merchant generators are rated from excellent to vulnerable). Given the legal ring-fencing provisions in place, Standard & Poor's analyzes major subsidiaries PPL Electric Utilities Corp. (PPLEU; A-/Stable/A-2) and Western Power Distribution Holdings Ltd. (WPD; BBB-/Stable/A-3) as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which contribute about 20% to PPL's cash flow, temper the merchant risk from PPL Energy Supply. The outlook is stable.

At June end 2008, Allentown, Pa.-based PPL has about $4.8 billion of adjusted debt and preferred securities, after deconsolidating WPD and PPLEU.

About 65% of PPL Energy Supply's total expected production is under a medium-term contract to serve affiliate PPLEU's provider-of-last-resort (POLR) load that has built-in step-ups in annual price caps through year-end 2009. PPL Energy Supply also enters into short- to medium-term contracts for the fuel and output of its merchant generation assets not committed to PPLEU on a rolling basis. Requirement contracts in markets such as New Jersey, Illinois, Maryland, and Delaware for various volumes and periods have also ensured that a high percentage of PPL Energy Supply's margins are locked in, which we view favorably.

With nearly 86% of energy produced from base-load assets, PPL Energy Supply benefits from its low-cost generation base. Yet, the company is exposed to the vicissitudes of the wholesale merchant markets because its fleet is essentially a price taker. Although the bulk of PPL Energy Supply's margins are under contract for the next two years, this percentage rolls off in the later years, indicating the need for PPL Energy Supply to constantly enter into new contracts. While longer-term market fundamentals indicate that recontracting risk should not be significant, near-term risk has emerged as market heat rates have declined, likely from the exit of financial institutions from the power markets in the wake of the financial crisis. A concomitant decline in gas prices due to strong natural gas production and a milder summer, as well as some evidence of demand destruction has also resulted in moderating wholesale prices. Still, a high hedged power sales position mitigates some of the immediate recontracting risk. While we expect new contracts at prices that are higher than PPL Energy's legacy contract, these will likely be lower compared to the company's plan resulting in downward pressure on credit quality through year-end 2009. The company also remains exposed to merchant risks in the longer term.

PPL's business profile is influenced by uncertainty about the future of competitive markets in Pennsylvania. In May 2007, PPLEU received approval from the Pennsylvania PUC for six regularly scheduled requests-for-proposals (RFP), held twice a year in March and September over 2007-2009, for its 2010 POLR supply requirements. We view the phased RFPs as credit supportive for PPLEU and PPL Energy Supply, as this institutes a procurement practice that establishes a portion of the supply prices ahead of needs and is expected to mitigate the potential for a rate shock by blending in supply prices over time. Conversely, this also provides PPL with adequate time to adjust its capital structure should supply prices decline. We also believe that PPL Energy Supply's assets are well positioned to serve some of PPLEU's POLR needs.

While a tightening of reserve margins and other systemic constraints in the PJM have resulted in an increase in supply/capacity prices, and portends well for PPL Energy Supply's low-cost, base load fleet, it also results in the possibility of a rate shock that could raise regulatory risk for parent PPL. The results of the first four RFPs for 850 MW have returned a full requirements price of about $106 per megawatt-hour (MWh), significantly higher than the rates embedded in the nine-year POLR contract through 2009. After incorporating a $11 per MWh offset from expiring competitive transition charges, and assuming similar prices in future competitive bids, we estimate a 36% increase in overall rates for PPL's customers in 2010, compared with 2009--an increase that we view as not insignificant.

Regulatory risks for PPLEU remain relating to the recovery of costs of the 2010 RFP. Earlier this year, PPLEU filed a rate smoothing plan that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan has since been approved by the PUC, which we believe could mitigate regulatory risks to an extent as it results in relatively moderate (5%-8%) annual increments to customer bills during 2008-2012, instead of a one-time increase in 2010. The decision by the PUC still leaves open the possibility for an alternative legislative proposal from the Pennsylvania assembly. While House Bill 2200 passed in Oct. 8, 2008, addresses the way in which utilities can purchase power, demand-side management and energy efficiency programs, it is still unclear when the Pennsylvania Senate and House will take up issues relating to rate mitigation (the Senate session for 2008 has ended). However, there are no definitive proposals for supply procurement after 2010.

PPL is spending about $2.8 billion from 2007 to 2009 to install emissions control equipment on its larger unregulated coal-fired units and increase generation capacity by about 200 MW over the next three years. These expenditures will likely cause significant negative discretionary cash flow during the period. This investment is not recoverable through rates, putting significant emphasis on PPL's ability to operate its plants at high availability factors to capture as much margin as possible.

We expect PPL to have near-term negative free cash flow due to its capital spending program. For the period that began in 2007 and continues through 2009, the company's discretionary cash flow will be negative by about $1.45 billion, which will entirely be funded by debt and hybrid securities. In 2008, the company has experienced cost pressures on its cash flow as a result of higher than anticipated coal costs, and from declining net revenues earned on the small proportion of generation that remains unhedged. As a result, adjusted FFO to debt has declined to about 20% while FFO to interest coverage has declined to 3.8x as of June 2008--measures that we consider weak. We expect price risk on the coal contracts to persist as only 65% of coal contracts for 2009 have fixed-base prices compared to 81% in 2008. A DC circuit court decision invalidating the U.S. EPA eastern NOx/SO2 reduction program will affect the company's financials in 2009 as PPL was planning to monetize its banked emission allowance credits to mitigate the impact of coal in 2009. PPL will need to generate a steady level of cash flow consistent with its increasing debt burden and internally fund part of its investment program, or delay expenditure programs into later years, in a manner that preserves quality.

Standard & Poor's views PPL's financial policy as aggressive due to management's emphasis on earnings per share growth, and its stated intention of increasing dividend payouts. As a result of planned capital-spending program, PPL is not deploying cash flow from operations to reduce debt during the years that its generation assets are highly hedged. Although the market is currently signaling higher power prices in the future, this could change, which would leave PPL with a high debt burden if margins decline. Standard & Poor's expects the financial risk profile to demonstrate improvement post 2010, with adjusted funds from operations (FFO) interest coverage averaging about 4.5x, FFO to total debt of about 25%, and adjusted total debt to total capital declining to about 55%.

Short-term credit factors

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPL's unregulated generation subsidiary, PPL Energy Supply, excluding WPD, has strong liquidity, with credit facilities that have recently expanded to $4.38 billion, almost of which $4.0 billion matures beyond 2010. As of June 30, 2008, there was $1.8 billion in LOCs and draws under these facilities, up from $683 million at year-end 2007, as a result of an increase in collateral requirements. In addition, PPL Energy Supply had about $290 million in cash and equivalents (excluding PPL Global and WPD) but also had about $450 million in short-term debt. Debt maturities at PPL Capital Funding and PPL Energy Supply should be manageable over the next few years, with only a $201 million meaningful maturity in May 2009 at PPL Capital Funding.

Based on our liquidity adequacy ratio, which captures the effects of an adverse credit and market event on a company's primary liquidity sources, PPL's coverage had declined to below 1.0 times during the second quarter as commodity prices rose but have since improved to about 1.2x by July. We estimate that ratio to be modestly higher by the end of September 2008, given a moderation in commodity prices and an increase in availability under the credit facilities. The computation assumes a downside scenario in which PPL would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for an adverse movement in power and gas prices.

Outlook

The stable outlook on PPL reflects continuing strong operating performance. However, we believe the company's financial profile will come under pressure in 2009 as expected fuel cost increase cannot be passed through in PPLEU rates. The outlook can be revised to negative, and ratings can come under pressure if FFO to debt weakens to levels below 20% from a potential moderation in natural gas prices, or declining market heat rates caused by moderating demand. An outlook revision to positive, currently not under consideration, would depend on further clarity about the future of competitive markets in Pennsylvania. An outlook revision will also be predicated on further expected improvement in the financial risk profile, which we do not expect until 2010, including the ability to generate free cash flow.

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January 27, 2009

Research Update:

PPL Corp. Outlook Revised To Negative, Subsidiary Short-Term Rating Lowered To 'A-3'

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Research Update:

PPL Corp. Outlook Revised To Negative, Subsidiary Short-Term Rating Lowered To 'A-3'

Rationale

On Jan. 27, 2009, Standard & Poor's Ratings Services revised its outlook on diversified energy company, PPL Corp., and its affiliate, PPL Energy Supply LLC , to negative from stable. At the same time, we affirmed our 'BBB' long-term corporate credit ratings on the two companies and lowered the short-term ratings on PPL Energy to 'A-3' from 'A-2'. At Dec. 31, 2008, Allentown, Pa.-based PPL has about $4.8 billion of adjusted debt, after deconsolidating subsidiaries PPL Electric Utilities Corp. (PPLEU) and Western Power Distribution Holdings Ltd. (WPD).

The outlook revision follows a deterioration in PPL's cash flow for 2008 due to:

- Higher-than-anticipated coal costs,
- Lower gross margins from the PPLEU supply contract due to differences in the mix and volumes of provider-of-last-resort (POLR) sales,
- Impact of lower coal plant availability from unplanned outages,
- A reduction in gain on the sale of emission allowances due to Clean Air Interstate Rules rescission by the DC Circuit Court, and
- A loss from proprietary trading activities.

The ratings on PPL predominantly reflect the business and financial risk profile of supply subsidiary PPL Energy. Given the legal ring-fencing provisions in place, Standard & Poor's analyzes PPLEU and WPD as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which currently contribute about 20% to PPL's cash flow, temper the merchant risk from PPL Energy.

The expiration of the long-term PPLEU's POLR supply contract, which hitherto provided cash flow stability, at the end of 2009 will increase volatility around realized margins and PPL's liquidity requirements for collateral. As a result, we have revised PPL's and PPL Energy's business risk profiles to satisfactory from strong (business positions of merchant generators are rated from excellent to vulnerable). While PPL's cash flow is expected to improve because the company has contracted much of its 2010 generation at levels that are substantially higher than the capped prices in 2009, the negative outlook also reflects execution risks associated with PPL's ability to achieve stronger financial metrics and counter the higher business risk.

With about 85% of energy produced from base-load assets, PPL Energy benefits from its low-cost generation base. Moreover, about 70% of PPL Energy's total expected production is under contract in 2009 to serve PPLEU's POLR load. PPL Energy also enters into short- to medium-term contracts for the fuel and output of its merchant generation assets not committed to PPLEU on a rolling basis. Requirement contracts in markets such as New Jersey, Illinois, Maryland, and Delaware for various volumes and periods have also ensured that a high percentage of PPL Energy's margins are locked through 2010, which we view favorably.

Yet, the company is exposed to the vicissitudes of the wholesale merchant markets because its fleet is essentially a price taker. The hedged percentage drops off to levels of about 45% in 2011, and lower levels in 2012 due to regulatory uncertainty on the shape and form of competitive markets. An exposure to wholesale merchant markets points to the need for PPL Energy to constantly enter into new contracts to mitigate cash flow volatility. Tightening reserve margins had allowed the company to layer in contracts for 2010 and 2011 at margins consistent with its business plans. However, margins may erode should the recessionary slowdown continue in the medium term and should contracts be renewed at lower levels. Furthermore, these contracts expose PPL Energy's margins to market risks, including but not limited to load shaping, fuel and volume risks.

There is also medium-term exposure to coal prices, which cannot be recovered from ratepayers as the price on the supply contract with PPLEU is capped. Coal requirement for PPL's eastern fleet is almost entirely hedged for 2009 and at levels that match, and somewhat exceed, hedged power sales through 2012. The company maintains strong sourcing availability and coal is supplied from five diverse regions and from 12 different contracts. In 2007, PPL Energy also signed a contract that will provide one-third of its eastern coal requirement through 2018 and provide fuel supply stability. Still, the percentage of supply to wholly-owned plants at fixed prices has declined from 100% in past years to about 80% in 2008 and is expected to decline to about 65% and 35% for 2009 and 2010, respectively. The rest of the supply is either subject to price collars (with a maximum price to limit exposure) or subject to mining related diesel price surcharges. Additionally, there is no ability to hedge any costs associated with new mining regulations of mines, which are added to base price. Owning to extreme volatility and a sharp spike in coal prices during 2008, PPL Energy's coal costs exceeded estimates and have adversely affected PPL's financial performance.

Consistent with its view of coal-fired generation, PPL considered that the market for emissions would also remain tight and that installing emissions control equipment is economically more advantageous than using emissions allowances. Also, in anticipation of stricter emissions standards, PPL Energy spent nearly half of its $2.8 billion capital expenditure over 2006-2008 period on emissions control equipment for its larger coal-fired units. Given that the generation assets are unregulated, PPL Energy cannot recover any of this investment through regulated means. Apart from relying on sustained high market prices to support funding a portion of its capital spending plans, PPL Energy's financial plan also reflected consideration of high level of emissions allowance prices and the potential of using unneeded allowances as additional sources of revenue, once the coal-fired plants are fully scrubbed. However, in July 2008, a DC District Court ruling struck down the Clean Air Interstate Act and remanded it back to the EPA causing a collapse in the emissions market, resulting in the loss of much needed revenues in a year when these would have buttressed the company's financial performance.

The business profile is also tempered by uncertainty about the future of competitive markets in Pennsylvania. While Pennsylvania legislation and the

Public Utility Commission (PUC) have generally been supportive of deregulation, and there have been no significant opposition to transition to markets, uncertainty could arise from a meaningful increase in customer rates. The results of the four concluded request for proposals (RFPs) for about 850 MW each have averaged a full requirements price of about $107 per megawatt-hour (MWh), significantly higher than the rates embedded in the nine-year POLR contract through 2009. We estimate that if prices set in the remaining two RFP solicitations are similar to the prices already established, customer bills would increase by 35% in 2010--an increase that we view as material.

Also, a material decline in wholesale prices in 2010 compared with the average price resulting from the RFPs could elevate regulatory/legislative risks. Recognizing the risk posed by a potential rate shock, PPLEU filed a rate smoothing plan that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan has since been approved by the PUC, which we believe could mitigate regulatory risks to an extent as it results in relatively moderate (5%-8%) annual increments to customer bills during 2008-2012, instead of a one-time increase in 2010. The decision by the PUC still leaves open the possibility for an alternative legislative proposal from the Pennsylvania assembly. While House Bill 2200 passed on Oct. 8, 2008, addresses the way in which utilities can purchase power, issues relating to demand-side management and energy efficiency programs are still unclear. Supply procurement after 2010 is also an issue. PPL has filed a procurement plan with the PUC on August 2008 that proposes the purchase of electricity supply for 2011 to mid-2014 four times a year, beginning in the third quarter of 2009. The procurement plan proposes solicitations for contracts for 12- and 24-month increments and also spot purchase with a predominant proportion of residential and small commercial customer needs contracted from fixed-price contracts. A decision is expected around April 2009.

The low price embedded in the rates in 2009 will pressure margins as it reflects a historic cost structure that is adjusted by an inflationary factor but does not reflect current costs. We also expect PPL to have near-term negative free cash flow due to its continuing capital spending program. For the period that began in 2007 and continues through 2009, the company's discretionary cash flow will be negative by about $2.0 billion, although we expect this negative position to continually improve through 2009 as the large capital spending program is completed. This deficit is largely being funded by debt and hybrid securities, although some asset sales and a small DRIP program has also funded the program. As a result, we estimate that adjusted FFO to debt has declined to about 20% by year-end 2008 compared to levels of about 26% at year-end 2007. Similarly, FFO to interest coverage has declined to 4.0x as of December 2008 from about 5.4x a year earlier--measures that we consider weak for the rating. Still, the company estimates strong improvement in its financial ratios in 2010 largely from the repricing of its generation portfolio after the end of the rate cap period with PPLEU. With more than 75% of its economic generation contracted, we expect a meaningful improvement in credit measures and FFO to debt could reach levels of about 35%-37%.

In our opinion, PPL has had a well established risk management program. We believe that the policies, infrastructure, and methodologies adopted by its trading group are comprehensive. While we are aware that the company does occasionally engage in proprietary trades for price discovery in certain markets, the size and duration of the book of some proprietary trading activity in the second half was unanticipated and weighs negatively in our ongoing assessment of the company's risk practices. We note that while risk management has placed restrictions on its trading VAR, a potential mark-to-model loss would be realized, with cash impact over four years. Our financial assessment factors this impact.

Short-term credit factors

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPL Energy (excluding WPD), has strong liquidity, with credit facilities aggregating $4.21 billion in credit facilities, almost $3.53 billion of which matures beyond 2010. As of Nov. 30, 2008, we estimate that there was about $525 million in LOCs and draws under these facilities, leaving more than $3.4 billion available. Debt maturities at PPL Capital Funding, an intermediate financing subsidiary, and PPL Energy should be manageable over the next few years, with only a $201 million maturity in 2009 at PPL Capital Funding. The next significant maturity of $500 million is not until 2011.

Based on Standard & Poor's liquidity adequacy ratio, which captures the effects of an adverse credit and market event on a company's primary liquidity sources, PPL's coverage has improved to more than 1.5x, in large part due to the increased availability under credit facilities. The computation assumes a downside scenario in which PPL would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for an adverse movement in power and gas prices.

While liquidity is adequate for the moment, there has been a broader reduction in market liquidity due to prevailing credit conditions. PPL Energy's liquidity requirements for collateral will increase on the expiration of the POLR contract (the current contract caps the collateral posting at $300 million). Post-2009, PPL Energy's ability to hedge margins will be constrained by its ability to increase overall liquidity levels. Based on the company's historic hedging targets (prompt year: 95%; second year: 75%, third year: 45%), we estimate that the company requires liquidity of about $5 billion to manage collateral calls from commodity price moves (95% confidence interval). With $685 million of existing capacity maturing in 2009, this results in PPL Energy's need to renew/establish about $1.5 billion of credit capacity for business operations in 2010. We will monitor the company's efforts to shore up its liquidity requirements.

Outlook

The negative outlook on PPL reflects its weak financial measures. We believe the company's financial profile will come under further pressure in 2009 as expected fuel cost increase cannot be passed through in the POLR contract with PPLEU. The ratings could be lowered if FFO to debt weakens to levels materially below 20% from a potential moderation in natural gas prices, or declining market heat rates caused by moderating demand. An outlook revision to stable would depend on further clarity about the future of competitive markets in Pennsylvania. An outlook revision will also be predicated on expectations that PPL's financial risk profile will improve to the intermediate level in 2010, with FFO to debt reaching levels of about 35%.

Ratings List

Outlook Revised	To	From
PPL Corp.		
PPL Energy Supply Co LLC		
Corporate credit rating	BBB/Negative/--	BBB/Stable/--

Ratings Lowered		
PPL Energy Supply Co LLC		
Short-term corp. credit rating	A-3	A-2
Commercial paper	A-3	A-2

Complete ratings information is available to subscribers of RatingsDirect, the real-time Web-based source for Standard & Poor's credit ratings, research, and risk analysis, at www.ratingsdirect.com. All ratings affected by this rating action can be found on Standard & Poor's public Web site at www.standardandpoors.com; select your preferred country or region, then Ratings in the left navigation bar, followed by Find a Rating.

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January 30, 2009

PPL Corp.

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PPL Corp.

Major Rating Factors

Corporate Credit Rating

BBB/Negative/NR

Weaknesses:

- Business risk profile will weaken, as the long-term contract with an affiliate will expire and all generation will become merchant;
- Lower wholesale power and natural gas prices, and dramatically higher volatility in market prices;
- Higher fuel costs;
- Uncertainty regarding transition to competitive markets in Pennsylvania;
- Regulatory risks;
- Negative free cash flow before dividends in 2009;
- Unanticipated trading operations that resulted in a MTM loss; and
- Negative implications of the DC District Court ruling on CAIR.

Strengths:

- Large portion of gross margin is under contract by hedging activities through 2011;
- The contract to supply energy for PPL Electric Utilities' provider of last resort (POLR) obligation has favorable terms;
- Results of the first four requests for proposals average a high $107 per MWh;
- Full requirements prices in PJM and Mid-Columbia (Mid-C) markets well above the $54 per MWh level;
- Regulatory support for the rate mitigation for 2010; and
- Some operating diversity in the merchant generation fleet.

Rationale

The ratings on PPL Corp. predominantly reflect the business and financial risk profile of supply subsidiary PPL Energy Supply LLC (PPLES). Given the legal ring-fencing provisions in place, Standard & Poor's analyzes PPL Electric Utilities Corp. (PPLEU) and Western Power Distribution Holdings Ltd. (WPD) as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which currently contribute about 20% to PPL's cash flow, temper the merchant risk from PPLES.

The expiration of the long-term PPLEU's POLR supply contract, which hitherto provided cash flow stability, at the end of 2009, will increase volatility around realized margins and PPL's liquidity requirements for collateral. As a result, we have revised PPL's and PPLES's business risk profiles to satisfactory from strong (business positions of merchant generators are rated from excellent to vulnerable). While PPL's cash flow is expected to improve because the company has contracted much of its 2010 generation at levels that are substantially higher than the capped prices in 2009, the negative outlook also reflects execution risks associated with PPL's ability to achieve stronger financial metrics and counter the higher business risk.

With about 85% of energy produced from base-load assets, PPLES benefits from its low-cost generation base. Moreover, about 70% of PPLES's total expected production is under contract in 2009 to serve PPLEU's POLR load. PPLES also enters into short- to medium-term contracts for the fuel and output of its merchant generation assets not committed to PPLEU on a rolling basis. Requirement contracts in markets such as New Jersey, Illinois, Maryland, and Delaware for various volumes and periods have also ensured that a high percentage of PPLES's margins are locked through 2010, which we view favorably.

Yet, the company is exposed to the vicissitudes of the wholesale merchant markets because its fleet is essentially a price taker. The hedged percentage drops off to levels of about 45% in 2011, and lower levels in 2012 due to regulatory uncertainty on the shape and form of competitive markets. An exposure to wholesale merchant markets points to the need for PPLES to constantly enter into new contracts to mitigate cash flow volatility. Tightening reserve margins had allowed the company to layer in contracts for 2010 and 2011 at margins consistent with its business plans. However, margins may erode should the recessionary slowdown continue in the medium term and should contracts be renewed at lower levels. Furthermore, these contracts expose PPLES's margins to market risks, including but not limited to load shaping, fuel and volume risks.

There is also medium-term exposure to coal prices, which cannot be recovered from ratepayers as the price on the supply contract with PPLEU is capped. Coal requirement for PPL's eastern fleet is almost entirely hedged for 2009 and at levels that match, and somewhat exceed, hedged power sales through 2012. The company maintains strong sourcing availability and coal is supplied from five diverse regions and from 12 different contracts. In 2007, PPLES also signed a contract that will provide one-third of its eastern coal requirement through 2018 and provide fuel supply stability. Still, the percentage of supply to wholly-owned plants at fixed prices has declined from 100% in past years to about 80% in 2008 and is expected to decline to about 65% and 35% for 2009 and 2010, respectively. The rest of the supply is either subject to price collars (with a maximum price to limit exposure) or subject to mining related diesel price surcharges. Additionally, there is no ability to hedge any costs associated with new mining regulations of mines, which are added to base price. Owning to extreme volatility and a sharp spike in coal prices during 2008, PPLES's coal costs exceeded estimates and have adversely affected PPL's financial performance.

Consistent with its view of coal-fired generation, PPL considered that the market for emissions would also remain tight and that installing emissions control equipment is economically more advantageous than using emissions allowances. Also, in anticipation of stricter emissions standards, PPLES spent nearly half of its $2.8 billion capital expenditure over the 2006-2008 period on emissions control equipment for its larger coal-fired units. Given that the generation assets are unregulated, PPLES cannot recover any of this investment through regulated means. Apart from relying on sustained high market prices to support funding a portion of its capital spending plans, PPLES's financial plan also reflected consideration of high level of emissions allowance prices and the potential of using unneeded allowances as additional sources of revenue, once the coal-fired plants are fully scrubbed. However, in July 2008, a DC District Court ruling struck down the Clean Air Interstate Act and remanded it back to the EPA causing a collapse in the emissions market, resulting in the loss of much needed revenues in a year when these would have buttressed the company's financial performance.

The business profile is also tempered by uncertainty about the future of competitive markets in Pennsylvania. While Pennsylvania legislation and the Public Utility Commission (PPUC) have generally been supportive of deregulation, and there have been no significant opposition to transition to markets, uncertainty could arise from a meaningful increase in customer rates. The results of the four concluded request for proposals (RFPs) for about 850 MW each have averaged a full requirements price of about $107 per megawatt-hour (MWh), significantly higher than the rates embedded in the nine-year POLR contract through 2009. We estimate that if prices set in the remaining two RFP solicitations are similar to the prices already established, customer bills would increase by 35% in 2010--an increase that we view as material.

Also, a material decline in wholesale prices in 2010 compared with the average price resulting from the RFPs could elevate regulatory/legislative risks. Recognizing the risk posed by a potential rate shock, PPLEU filed a rate smoothing plan that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan has since been approved by the PPUC, which we believe could mitigate regulatory risks to an extent as it results in relatively moderate (5%-8%) annual increments to customer bills during 2008-2012, instead of a one-time increase in 2010. The decision by the PPUC still leaves open the possibility for an alternative legislative proposal from the Pennsylvania assembly. While House Bill 2200 passed on Oct. 8, 2008, addresses the way in which utilities can purchase power, issues relating to demand-side management and energy efficiency programs are still unclear. Supply procurement after 2010 is also an issue. PPL has filed a procurement plan with the PPUC on August 2008 that proposes the purchase of electricity supply for 2011 to mid-2014 four times a year, beginning in the third quarter of 2009. The procurement plan proposes solicitations for contracts for 12- and 24-month increments and also spot purchase with a predominant proportion of residential and small commercial customer needs contracted from fixed-price contracts. A decision is expected around April 2009.

The low price embedded in the rates in 2009 will pressure margins as it reflects a historic cost structure that is adjusted by an inflationary factor but does not reflect current costs. We also expect PPL to have near-term negative free cash flow due to its continuing capital spending program. For the period that began in 2007 and continues through 2009, the company's discretionary cash flow will be negative by about $2.0 billion, although we expect this negative position to continually improve through 2009 as the large capital spending program is completed. This deficit is largely being funded by debt and hybrid securities, although some asset sales and a small DRIP program have also funded the program. As a result, we estimate that adjusted FFO to debt has declined to about 20% by year-end 2008 compared to levels of about 26% at year-end 2007. Similarly, FFO to interest coverage has declined to 4.0x as of December 2008 from about 5.4x a year earlier--measures that we consider weak for the rating. Still, the company estimates strong improvement in its financial ratios in 2010 largely from the repricing of its generation portfolio after the end of the rate cap period with PPLEU. With more than 75% of its economic generation contracted, we expect a meaningful improvement in credit measures and FFO to debt could reach levels of about 35%-37%.

In our opinion, PPL has had a well established risk management program. We believe that the policies, infrastructure, and methodologies adopted by its trading group are comprehensive. While we are aware that the company does occasionally engage in proprietary trades for price discovery in certain markets, the size and duration of the book of some proprietary trading activity in the second half was unanticipated and weighs negatively in our ongoing assessment of the company's risk practices. We note that while risk management has placed restrictions on its trading VAR, a potential mark-to-model loss would be realized, with cash impact over four years. Our financial assessment factors this impact.

Short-term credit factors

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPLES (excluding WPD), has strong liquidity, with credit facilities aggregating $4.21 billion in credit facilities, almost $3.53 billion of which matures beyond 2010. As of Nov. 30, 2008, we estimate that there was about $525 million in LOCs and draws under these facilities, leaving more than $3.4 billion available. Debt maturities at PPL Capital Funding, an intermediate financing subsidiary, and PPLES should be manageable over the next few years, with only a $201 million maturity in 2009 at PPL Capital Funding. The next significant maturity of $500 million is not until 2011.

Based on Standard & Poor's liquidity adequacy ratio, which captures the effects of an adverse credit and market event on a company's primary liquidity sources, PPL's coverage has improved to more than 1.5x, in large part due to the increased availability under credit facilities. The computation assumes a downside scenario in which PPL would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for an adverse movement in power and gas prices.

While liquidity is adequate for the moment, there has been a broader reduction in market liquidity due to prevailing credit conditions. PPLES's liquidity requirements for collateral will increase on the expiration of the POLR contract (the current contract caps the collateral posting at $300 million). Post-2009, PPLES's ability to hedge margins will be constrained by its ability to increase overall liquidity levels. Based on the company's historic hedging targets (prompt year: 95%; second year: 75%, third year: 45%), we estimate that the company requires liquidity of about $5 billion to manage collateral calls from commodity price moves (95% confidence interval). With $685 million of existing capacity maturing in 2009, this results in PPLES's need to renew/establish about $1.5 billion of credit capacity for business operations in 2010. We will monitor the company's efforts to shore up its liquidity requirements.

Outlook

The negative outlook on PPL reflects its weak financial measures. We believe the company's financial profile will come under further pressure in 2009 as expected fuel cost increase cannot be passed through in the POLR contract with PPLEU. The ratings could be lowered if FFO to debt weakens to levels materially below 20% from a potential moderation in natural gas prices, or declining market heat rates caused by moderating demand. An outlook revision to stable would depend on further clarity about the future of competitive markets in Pennsylvania. An outlook revision will also be predicated on expectations that PPL's financial risk profile will improve to the intermediate level in 2010, with FFO to debt reaching levels of about 35%.

Business Description

PPL is an Allentown, Pa.-based diversified energy company that owns both regulated and unregulated businesses. The U.S.-based regulated businesses consist of PPL Electric Utilities, an electricity distribution company for 1.4 million customers in central and eastern Pennsylvania. PPL Gas Utilities Corp., a gas distribution company in Pennsylvania for 77,000 customers and Penn Fuel Propane, a small propane business serving 34,000 customers, were both sold in the second half of 2008.

PPL also owns PPLES, an intermediate holding company for both regulated and unregulated operations. The regulated operations of PPLES are housed under PPL Global, which provides electric delivery service in the U.K. PPL Global's significant investment is through Western Power Distribution Holdings Ltd. (WPD), a U.K.-based electricity transmission and distribution subsidiary providing service to 2.6 million users. WPD companies accounted for 29,000 GWH of electricity deliveries. Other significant international investments held by PPL Global until recently such as Emel, a Chilean electricity distribution company, Elfec, a Bolivian electricity distribution company, and Del Sur, an electricity distribution company were divested in 2007 for a total consideration of about $850 million.

The unregulated operations of PPLES include PPL Energy Plus LLC, an electricity and gas marketer for owned generation and purchased power, PPL Generation LLC, which owns and operates PPL's 10,071 MW of merchant generation fleet, and PPLM, a project-financed subsidiary with about 1,287 MW of merchant generation assets. This reflects a loss of about 60 MW de-rating from scrubber installation and the closure of two 150 MW old fossil plants. However, about 175 MW of planned uprate projects are currently underway for completion by 2011.

Rating Methodology

The ratings on PPL Corp. reflect the credit quality of PPLES and the dividends (quality of cash flow) that arrive from PPL Electric Utilities and WPD. Due to various degrees of legal and structural insulation, PPL Electric Utilities and WPD, are treated as equity investments in Standard & Poor's analysis. As a result, only their expected dividend streams are incorporated into the analysis, which are expected to provide about 20% of total cash flow through 2009, but only about 10%-12% in future years. The dividends from PPL Electric Utilities and WPD are viewed as residual cash flows from these entities, under the assumption that all available cash flow will first be used to satisfy their own needs before any cash is streamed to the parent.

On account of legal ring-fencing provisions in place, PPL EU is rated on a standalone basis. However, due to significant business interrelations its default risk is insulated, and not isolated, from effects of the parent. Consequently, Standard & Poor's has determined that the utility can be rated at most two notches above PPL Corp, if its stand-alone credit quality meets those requirements. Our approach also deconsolidates WPD given the existence of ring-fencing and the fact the company is domiciled in the UK.

While PPLM is project financed and its debt is non-recourse to the parent, PPL Corp. has managed PPLM as part of its core operations and has provided a measure of financial support through the availability of a $100mm line of credit. As a result, we consider a measure of parental support in addition to PPLM's standalone credit profile in assigning its rating.

Business Risk Profile

Under the restructuring plan approved by the Pennsylvania Public Utilities Commission (PPUC) in 1998, PPL Electric Utilities restructured into an electricity transmission and distribution company, with the generation assets housed into a separate unregulated entity. The PPUC required PPL Electric Utilities to operate as POLR supplier at least until 2010, with the cost of power passed through to ratepayers. PPL Electric Utilities has an attractive service territory that has experienced reasonable customer and load growth of about 1.5% annually, but was flat for 2008 after the slowdown took hold. The company's strong business position benefits from low-operating risk and its position as the incumbent utility provider.

PPLEU's POLR obligation provides stability to cash flow during 2009

PPLES operates about 11,418 MW (less 60 MW due to scrubber de-rating) of predominantly base-load coal and nuclear merchant generation assets in the PJM (9,076 MW), PJM West (557 MW), Mid-C (1,287 MW), New England Power Pool (339 MW), and New York Independent System Operator (159 MW) markets.

About 70% of total expected production of about 55,000 GWH and about 50% of PPLES's expected gross margins in 2009) is committed to serve the POLR load needs of PPL Electric Utilities. Overall, PPLES currently provides about 70% of PPL's cash flow (due to ring-fencing provisions discussed above, we only include dividends from PPLEU and WPD's in PPL's cash flows).

Because PPLES's cash flow contribution to the parent is estimated to grow to about 90% of parent PPL's cash flow by 2010, PPLES's credit quality is critical to the credit quality of the parent. Owing to the long-term full requirements price contract with PPLEU at capped prices (see table 1 below), we expect low variability in PPLES's cash flow from the POLR contract as the contract with PPLEU still provides price certainty on about 40,000 GWH of generation.. However, we expect volatility to increase around realized margins by 2010 when the contract with PPLEU expires and PPLES's generation becomes entirely merchant.

Table 1

Annual Capped POLR Supply Prices

	2002	2003	2004	2005	2006	2007	2008	2009
$/MWH	42.30	42.70	44.10	44.10	47.80	48.40	49.10	50.20

Post transition, while cash flows are expected to increase so will merchant risks

The current capped full requirements price for 2009 of $50.2 per Megawatt-hours (MWH) provides cash flow stability but is significantly below market. To contrast, wholesale around-the-clock prices were in the range of about $60-69 per MWh in 2007 (but have declined since to levels around $50 per MWh by first quarter 2009). Full requirements prices can add an incremental 75%-100% premium to wholesale prices. While wholesale merchant gross margins have been affected in 2008 from a recessionary slowdown, and likely will remain low through 2009, we still expect PPLES's cash flow to improve in 2010 because it has contracted much of its 2010 generation at levels that are meaningfully higher than the capped prices in 2009. While financial measures for 2010 will be favorably affected, we expect them to be so because the business risk of the company would have also increased from PPLES's generation's full exposure to merchant markets. Accordingly, we have revised the business profile risk of the company to satisfactory from strong in anticipation of the inevitable increase in cash flow volatility. It is likely that we will improve the financial risk profile to the intermediate level if PPL is able to achieve FFO to debt levels of about 35%, or higher, as projected.

Recognizing the need to secure supply requirements for utility PPLEU for the post transition periods, In May 2007, PPLEU received approval from the PPUC for six regularly scheduled requests-for-proposals (RFP), held twice a year in March and September over 2007-2009, for its 2010 POLR supply requirements. We view the phased RFPs as credit supportive for PPLEU and PPLES, as this institutes a procurement practice that establishes a portion of the supply prices ahead of needs and is expected to mitigate the potential for a rate shock by blending in supply prices over time. Conversely, this also provides PPL with adequate time to adjust its capital structure should supply prices decline. We also believe that PPLES's assets are well positioned to serve some of PPLEU's POLR needs.

The results of the first four RFPs, for 850MW each, have determined a full requirements price (see table 2) averaging about $107 per MWh--significantly higher than the rates embedded in the nine year POLR contract through 2009. To be clear, these volumes are not contracted with PPLES. Rather, PPLES won some, but not a significant part of the RFP in which several companies participated. Yet, the higher price provides anecdotal evidence that prices that PPLES has contracted for its generation in 2010 are meaningfully higher than the 2009 rates.

Table 2

Requests For Proposal Prices

Rounds	Date	Residential	Small C&I
($/MWh)			
1	July 2007	101.77	105.11
2	October 2007	105.08	105.75
3	March 2008	108.8	108.76
4	October 2008	112.51	111.94
Average		107.04	107.89

Our estimates of the load price components from the 4 concluded RFP's are presented below. However, wholesale prices have declined dramatically compared to prices prevailing at June 2008. Yet, the RFP price established in Sep/Oct 2008 was higher because extreme market disruptions in September 2008 caused risk premiums for components such as credit and counterparty risks to jump. Prices set in the final two RFP's are likely to be lower. Our estimates for these remaining RFP's are also presented below in table 3 (right column).

Table 3

Residential And Small Customer (Load Following Component Example)

Full Requirements Price	2009	2010	Declined forward markets
$/MWh			
ATC energy		67	50
Load shape/congestion		6	4.2
Capacity price*		15	15
Volumetric risk		4.3	4
Customer migration risk		0.9	0.7
Ancillary		3	3
Credit risk		0.5	1.2
Net full requirements/load following¶	48.1	97	78
Line losses	4.1	5.6	5
4.4% gross receipt tax adder	2.1	4.3	3.4
Full requirements price	54.3	106.6	86.5

*Illustration is the average of the four RFPs already completed. ¶Based on $150 per MW-day and a load factor of 50%. §2009 full requirements price is all inclusive, net of gross receipt adder, based on the negotiated POLR contract price. **S&P estimate for remaining two RFPs. Source: PPL Corp. presentations and S&P estimates.

Of particular note is the increase in the full requirements premium, which has increased to about 65%-70% over wholesale energy prices in 2008 from about 45% in 2005. The increase is from a combination of pricing of credit risk, an increase in capacity prices/RPM and a higher risk premium caused by the volatility in market prices.

Outside of its contract with the utility affiliate, PPL is becoming a larger merchant player. The company's strategy is to enter into short-to medium-term contracts for the output of its merchant generation. Portions of PPLES's projected output (450MW) are committed to NorthWestern until mid-2014, and to various requirements contracts with other transmission and distribution companies. PPLES also has existing requirements contracts with the New Jersey BGS through 2009. It has also won requirements contracts in the erstwhile auction market in Illinois, and the auction markets in Maryland and Delaware for various volumes and periods through 2009. As a result, the company is supplying larger volumes than it generates in 2009 (about 67,000 GWH). However, some of these new requirements contracts can result in larger liquidity requirements should prices move adversely from the prices contracted also because the company now supplies more energy than it economically generates (more bilateral purchases).

PPLES's generation is currently over 95% hedged in the East and over 90% for its western fleet through 2009 providing stability to cash flow. The bulk of total projected margin is under contract through 2010 with over 75% of generation hedged in that year. However, the hedged percentage drops off post 2010 to levels of about 45% in 2011, but lower at about 25% in 2012 due to regulatory uncertainty on the shape and form of competitive markets post transition. Yet, an exposure to wholesale merchant markets points to the need for PPLES to constantly enter into new contracts to mitigate cash flow volatility. While tightening reserve margins had allowed the company to layer in contracts for 2010 and 2011 at margins consistent with its business plans, margins may erode should the recessionary slowdown continue in the medium term and should contracts be renewed at lower levels. Furthermore, these contracts expose PPLES's margins to market risks, including but not limited to load shaping, fuel and volume risks. We estimate that in 2008 the company generated gross margins that are $20 million lower than estimated due to differences in the mix and volumes of POLR sales.

Regulatory uncertainty in Pennsylvania remains.

The business profile is tempered by uncertainty about the future of competitive markets in Pennsylvania. While Pennsylvania legislation and the PPUC have generally been supportive of deregulation, and there have been no significant opposition to transition to markets, uncertainty could arise from meaningful increase in customer rates.

We believe the prices set by the four concluded RFP's for PPLEU's POLR requirement result in the possibility of a rate shock and could raise regulatory risk for parent PPL. Expiring competitive transition charges (CTC) of about $11 per MWh mute the impact of the increasing supply component on the overall customer charge, but if we were to assume similar RFP prices in the remaining two competitive bids, we estimate a 35% increase (see table 4) in overall rates for PPLEU's customers in 2010, compared with 2009--an increase that we view as not insignificant.

Table 4

Residential Customer (1,000 kWh Per Month)

	2009 ($)	Pro forma 2010 ($)	Year-over-year increase (%)
Distribution	$34.84	$32.08	
Transmission	$7.52	5.42*	
Energy and capacity	$54.30	107.1¶	97.2
CTC	$10.84	-	
Total bill	$107.50	$144.60	34.5

*Ancillaries included in energy & capacity charge. ¶Based on first four solicitations (July 2007, September 2007, March 2008, and September 2008).

While lower prices in the remaining RFP's could lower the blended supply price somewhat, a material decline in wholesale prices compared with the average price resulting from the RFP's further elevates regulatory risks. Recognizing the regulatory risk posed by a rate shock, last year PPLEU filed a rate smoothing plan that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan has since been approved by the PPUC, which we believe could mitigate regulatory risks to an extent as it results in relatively moderate (5%-8%) annual increments to customer bills during 2008-2012, instead of a one-time increase in 2010. The decision by the PPUC still leaves open the possibility for an alternative legislative proposal from the Pennsylvania assembly. While House Bill 2200 passed in Oct. 8, 2008, addresses the way in which utilities can purchase power, issues relating to demand-side management, and energy efficiency programs, it is still unclear when the Pennsylvania Senate and House will take up issues relating to rate mitigation.

Supply procurement after 2010 is also an issue. PPL has filed a procurement plan with the PPUC on August 2008 that proposes the purchase of electricity supply for 2011 to mid-2014 four times a year, beginning in the third quarter of 2009. The procurement plan proposes solicitations for contracts for 12 and 24 months increments and also spot purchase with a predominant proportion of residential and small commercial customer needs contracted from fixed –price contracts. A decision is expected around April 2009.

Legacy low-cost generation assets are favorable but fuel costs have been on the rise

While risks for gross margin erosion exist in the medium term from a recessionary downturn, in the long term, we expect PPLES's low-cost, base-load generation assets to benefit from a combination of increasing load factors and as gas increasingly sets the marginal cost of power in both the PJM and Mid-C markets. We estimate that almost 6,000 MW of PPL's eastern base load generation has an all-in dispatch cost of about $20 per MWh.

To ensure a measure of cash flow stability, the company also hedges fuel requirements, on a rolling basis, to match its forward sales. Uranium is fully contracted through the 2011 period with over 10 suppliers. The notable differences being that contracts prices have trended up since 2006 and an increasingly smaller proportion of supply is contracted through fixed price contracts. While uranium prices have increased, said, coal is the only fuel that has the ability to affect expenses in a meaningful way.

PPLES requires about 9.0 million tons of coal in the East, split about 7.5 million tons for the wholly owned Montour and Brunner Island units and 1.5 million tons for Keystone and Conemaugh (which is procured by the operator, Reliant Energy). Eastern coal requirement is almost entirely hedged for 2009 and at levels that match up (and somewhat exceed) power sales hedges through 2012, although exposure to coal prices increases post 2010. The company maintains strong sourcing availability and coal is supplied from five diverse regions and through 12 different contracts. In 2007, PPLES also signed a contract that will provide one-third of its eastern coal requirement through 2018 and provide fuel supply stability.

Still, the percentage of supply to wholly-owned plants at fixed base prices has declined from 100% in past years to about 80% in 2008 and is expected to be about 65% and 35% for 2009 and 2010, respectively. The rest will either be subject to price collars (with a maximum price to limit exposure) or subject to mining related diesel price surcharges. Additionally, there is no ability to hedge any costs associated with new mining regulations of mines, which are added to base price. Owning to extreme volatility and a sharp spike in coal prices during 2008, PPLES's coal costs exceeded estimates. While coal prices have declined from record highs, the company remains exposed to volatility in prices through 2009, especially since much of its revenues remain contracted because of the capped supply rate with affiliate PPLEU.

Supply and pricing in the west is not a significant risk as both Colstrip and Corette are either mine mouth facilities or located in close proximity to coal supplies. Supply volumes are also hedged to a high level through 2012.

Operating performance has been satisfactory with some exceptions

PPLES's strategy relies significantly on the operating performance of its merchant generation assets as out of service units expose PPLES to open market purchases in order to meet its contractual obligations. Consequently, the company requires considerable capital expenditures to ensure efficient and reliable operation. PPLES's generation assets have generally demonstrated good reliability and availability, with equivalent availability of around 90%.

However, in 2008, PPLES experienced lower coal plant availability due to the collapse of the substructure surrounding the Montour Unit 1 cooling tower and tube leaks at Brunner Island from superheater performance issues. The outage of the Montour unit that produces about 12.5% of PPLES LLC's eastern base-load generation during peak summer months hurt the company's cash flow. The Montour unit 1 cooling tower substructure has since been replaced and the Brunner superheater project has been accelerated with completion scheduled for May 2009. The substructure at Montour unit 2 is scheduled for replacement in 2010.

The fleet's generation capacity has increased some. In 2008, PPLES acquired the 665 MW AES Ironwood toll in PJM. The first phase of nuclear uprates at Susquehanna unit 1 is complete, while unit 2 uprate of about 145 MW will be completed in 2009, although the fleet will also lose about 60 MW from derating after the scrubbers are installed.

Consistent with its view of coal-fired generation, PPL considered that the market for emissions would also remain tight and that installing emissions control equipment is economically more advantageous than using emissions allowances. Also, in anticipation of stricter emissions standards, PPLES spent nearly half of its $2.8 billion capital expenditure over 2006-2008 period on emissions control equipment for its larger coal-fired units, Brunner Island and Montour (at $360-$390 per kW on about 3,000 MW). The scrubbers at the Montour units were commissioned in 2008, as was the scrubber at Brunner unit 3. The other two scrubbers at Brunner 1 and 2 are expected to be on schedule and budget by the second quarter of 2009.

Given that the generation assets are unregulated, PPLES cannot recover any of this investment through regulated means. Apart from relying on sustained high market prices to support funding a portion of its capital spending plans, PPLES's plan also reflected consideration of high level of emissions allowance prices and the potential of utilizing unneeded allowances as additional sources of revenue, once the coal-fired plants are fully scrubbed. However, in July 2008, a DC District Court ruling struck down the Clean Air Interstate Act and remanded it back to the EPA causing a collapse in the emissions market. While the DC court ruling is negative for PPLES's cash flows in the short term, we expect reintroduction of emission reduction laws in some form. The company remains over-compliant on its emissions and will generate substantial emission credits in excess of requirements post second quarter 2009 when all planned scrubbers are in service.

WPD's and PPLM's performance has been as expected

WPD has two major operating subsidiaries, Western Power Distribution (South West) and Western Power Distribution (South Wales) that distribute electricity to more than 2.6 million customers. The distribution companies have strong business risk profiles that benefit from transparent regulation, a large and mostly residential customers base that provides for revenue and cash flow stability, and their positions as monopoly distributors of electricity. Margins have improved from market stability, a 1% demand growth and favorable customer mix.

An established regulatory environment underpins predictable cash flows over the current 2005-2010 regulatory period. In late 2004 the companies received a favorable rate determination for the next five-year rate cycle. The utilities receive revenue recovery on a formula of "RPI minus X", where RPI is the retail price index (a measure of inflation) and "X" is an efficiency factor. Like all U.K. distribution network operators, however, WPD is exposed to the risk of the regulatory reset every five years. Its operating performance is solid, as illustrated by the two operating companies' outperformance of the key service targets in the latest regulatory assessment (2006-2007) by the Office of Gas and Electricity Markets. WPD's capital expenditure was in line with regulatory targets in 2008. Despite the favorable regulatory outcome so far, the financial metrics of WPD and its subsidiaries are expected to remain low but stable. PPL's strategy is to receive dividends from WPD while providing a minimal level of support.

We analyze WPD, on a stand-alone basis and recently affirmed its ratings (see research update dated Dec 5, 2008). The ratings on WPD South Wales (BBB+/Stable/A-2) and WPD South West (BBB+/Stable/A-2) are notched up from those on PPL, owing to their supportive covenants and corporate government arrangements, geographic separation, and the U.K. regulatory environment. The ratings on related holding companies WPD Holdings and Western Power Distribution Holdings LLP (WPD LLP; collectively with WPD South West and WPD South Wales, WPD) (BBB-/Stable/A-3) are derived from the ratings on the operating companies. They are, however, differentiated by additional risks at the holding company level. The lower ratings on WPD Holdings and WPD LLP reflect that only WPD's licensed and regulated operating companies benefit from regulatory protection and that debt holders at the holding company level have greater exposure to nonpayment risk because they have only secondary access to regulated operating cash flows

PPLM, a subsidiary of PPLES, supplied NorthWestern Inc. with 450 MW at an average of $32 per MWh through July 2007. The below market nature of the contract paved the way for an extension. While pricing for the supply is materially higher and started around $45, and will increase to nearly $53 per MWH by 2014, the volumes under contract will be lower. Under the term of the contract PPLM is providing varying supply, from a high of 325 MW, on peak, in 2007, down to 200 MW on-peak in 2014. Still with the leveraged lease down to $220 million ($190 per kW) the level of debt supports PPLM's rating (please see detailed full report on RatingsDirect published Jan 8, 2009).

Profitability

PPL's profitability is largely driven by the PPLES's supply portfolio's performance, which are projected to grow to about 90% of cash flow by 2010 from the current 80%. PPLES endeavors to ensure margin and cash flow stability by entering into short- to intermediate-term contracts for the expected output of its plants, while hedging a large portion of the expected fuel to be used. We expect the company's performance to be the weakest in 2009 due to ongoing fuel and O&M cost pressures, and from one time effects such as operating outrages at large units.

Financial Risk Profile

Accounting

Due to various degrees of legal and structural insulation, PPL Electric Utilities and WPD, are treated as equity investments in Standard & Poor's analysis. As a result, we analyze PPL Corp's credit measures after deconsolidating PPLEU and WPD from PPL, resulting in the removal of nearly $1.77 billion of PPLEU's debt, $305 million of securitized debt pertaining to transition bonds issued at PPL Transition Bond company and about $1.67 billion of debt at the WPD companies.

As of Sep 30, 2008, PPL had $384 million associated with the retirement of long-lived assets as a liability in its consolidated balance sheet as required under SFAS 143 (accounting for asset retirement obligations). Of that amount, $298 million relate to accrued nuclear decommissioning expenses for PPLES's 90% interest in the Susquehanna station. The aggregate fair value of the related nuclear plant decommissioning trust fund was $498 million as of Sept. 30, 2008.

PPL enters into various derivative contracts to hedge against the variability of expected cash flows associated with the generating units, movements in interest rates, and exposure to foreign currency. All derivative contracts that are subject to the requirements of SFAS 133 and qualify as hedges, are reflected on the balance sheet at their fair value. PPL's non-trading commodity derivative contracts, segregated either as hedge or economic, mature at various times through 2012. The non-trading economic category includes transactions that address a specific risk but are not eligible for hedge accounting. While mark-to-market impact of unrealized losses o economic hedges of energy wholesale contracts can be negative for earnings, these are economically neutral because of offsetting gains on the underlying accrual positions, which are recognized in the future.

PPLES's subsidiary, PPLM, leases a 50% interest in Colstrip Units 1 and 2 and a 30% interest in Unit 3, under four 36-year non-cancellable operating leases. These operating leases are not recorded on PPLES's balance sheet, and as a result, Standard & Poor's capitalizes these leases resulting in the addition of about $220 million of off-balance-sheet debt equivalent.

In addition, in June 2008, PPL EnergyPlus agreed to acquire the 664MW AES Ironwwood long-term tolling agreement. We impute a $355 million debt imputation related to this tolling agreement.

Corporate governance/Risk tolerance/Financial policies

Standard & Poor's views PPL's financial policy as somewhat aggressive from a bondholder's perspective due to management's emphasis on EPS growth and stated intent of increasing dividend payouts and repurchasing equity. Despite being free cash flow negative in 2006-2007, expected to remain so through 2009, and still having a substantial capital expenditure program, management elected to employ about $713 million of the $850 million in sale proceeds from the Latin American divestitures for buying back stock even as the increase in capital spending to address environmental needs necessitated the use of external financing, at least in the intermediate term, which have been debt funded.

Cash flow adequacy

PPL's cash flow is largely driven by PPLES's supply portfolio's performance, which currently accounts for about 80% of cash flow. While PPLES's strategy benefits in an environment of rising power prices, margins can also erode as wholesale power prices begin to decline and contracts are renewed at lower levels. Moreover, in 2009, cost pressures from higher coal prices cannot be mitigated by passing these costs in higher supply prices as rates are still capped on the generation that serves affiliate PPLEU's customers. The low price embedded in the rates of the final year of the long-term contract reflects a historic cost structure that is adjusted by an inflationary factor but does not reflect current coal prices, resulting in pressure on margins. Nevertheless, we estimate that 95% of the supply is hedged in 2009 and about 60% of supply margins are hedged through 2011, which should reduce cash flow volatility.

Also, a combination of reasons has resulted in deterioration in cash flow in 2008. These include:

- Higher than anticipated coal costs that resulted in an increase of about $40 million compared to company's plan.
- A $30 million reduction in gain than projected on the sale of emission allowances due to CAIR rescission by the DC circuit court. PPL was planning to monetize its banked emission allowance credits to mitigate the impact of higher coal prices in 2009.
- An $85 million impact on cash flow from lower coal plant availability –Montour (cooling tower substructure collapse) and Brunner Island (tube leaks)
- A mark-to-model loss on proprietary trading and marketing losses on forward off-peak energy purchases for the period 2009-2012. The MTM loss has not been disclosed publically, but has been reviewed by Standard &

Poor's.

We expect PPL to have near-term negative free cash flow due to its continuing capital spending program. For the period that began in 2007 and continues through 2009, the company's discretionary cash flow will be negative by about $2.0 billion, although we expect this negative position to continually improve through 2009 as the large capital spending program is completed. However, this deficit is largely being funded by debt and hybrid securities, although limited asset sales and a small DRIP program has/will also provide capital. As a result, we estimate that adjusted FFO to debt has declined to about 20% by year-end 2008 compared to levels of about 26% at year-end 2007. Similarly, FFO to interest coverage has declined to 4.0x as of December 2008 from about 5.4x a year earlier--measures that we consider weak for the rating.

The company estimates strong improvement in its financial ratios in 2010 largely from the repricing of its generation portfolio after the end of the rate cap period with PPLEU. With over 3/4th of its economic generation contracted we expect a meaningful improvement in credit measures and FFO to debt could reach levels of about 35%-37%. Anecdotally, the supply prices set by the 4 RFP's held by PPLEU have doubled the supply cost component for the utility's customers. While we expect supply prices to have declined commensurate with the general decline in commodity markets, we still expect prices to be meaningfully higher than the capped prices in 2009. For instance, we estimate that PPLES earns about $20-$22 per MWh in gross margins from the PPLEU contract in 2009. In comparison, our estimate of the average gross margin hedged through wholesale contracts in the east is about $32-$35 per MWh.

Still, PPL will need to maneuver through 2009 and generate a steady level of cash flow consistent with its increasing debt burden and internally fund part of its investment program, or delay expenditure programs into later years, in a manner that preserves quality. PPL expects that it will be cash flow negative after dividends and capital spending in 2009 as a result of capped rates, potential volatility in coal prices, and PPLES's continuing capital expenditure that is estimated at about $650 million in the year, about a third of which is discretionary. The company proposes to augment its financial position with ample liquidity to tide over the year.

Liquidity and liability management

PPL's ability to buttress performance in 2009 is most notable in its liquidity management. Below, are some of the liquidity enhancing steps taken by the company:

- Elimination of about $175 million of discretionary capital expenditure that includes a delay in the expansion of Holtwood, a hydro facility; a delay in the implementation of certain renewable projects;, and the limiting of spending on the Bell Bend project to the construction and operating license application (COLAS) related costs.
- The return of $300 million in collateral held by PPLEU relating to the expiration of the long term contract.
- A one time dividend of $200 million from the after tax CTC revenues received by PPLEU during 2009.
- A $200 million distribution received from the recapitalization of subsidiary WPD.

We expect that distributions received from both WPD and PPLEU are temporary to shore up liquidity and will be returned to the affiliates during 2010. Correspondingly, these distributions are excluded from our ratio calculations.

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPL's unregulated generation subsidiary, PPL Energy Supply, excluding WPD, has strong liquidity, with $4.21 billion in credit facilities, $3.53 billion of which matures beyond 2010. As of Nov. 30, 2008, we estimate that there was about $525 million in LOCs and draws under these facilities, leaving over $3.4 billion available. Debt maturities at PPL Capital Funding and PPL Energy Supply should be manageable over the next few years, with only a $201 million meaningful maturity in 2009 at PPL Capital Funding. The next sizable maturity of $500 million is not until 2011.

Based on Standard & Poor's liquidity adequacy ratio, which captures the effects of an adverse credit and market event on a company's primary liquidity sources, PPL's coverage has improved to over 1.5x, in large part due to the increased availability under credit facilities. The computation assumes a downside scenario in which PPL would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for an adverse movement in power and gas prices.

While liquidity is adequate for the moment, there has been a broader reduction in market liquidity due to prevailing credit conditions. PPLES's liquidity requirements for collateral will increase on the expiration of the POLR contract (the current contract caps the collateral posting at $ 300 million). Post 2009, PPL Energy Supply's ability to hedge margins will be constrained by its ability to increase overall liquidity levels. Based on the company's historic hedging targets (prompt year: 95%; second year: 75%, third year: 45%), we estimate that the company requires liquidity of about $5 billion. With $685 million of existing capacity maturing in 2009, this results in PPLES's need to renew/establish about $1.5 billion of credit capacity for business operations in 2010. We will monitor the company's efforts to shore up its liquidity requirements.

Capital structure/Asset protection

Adjusted debt to capital remains on the edge for the current rating at about 56% as of year-end 2008. Any improvement in debt leverage will likely be the result of retained earnings and not from decrease in debt levels as PPL will rely on debt financing for a portion of its planned capital-spending program.

Ratings Detail (As Of January 30, 2009)*	
PPL Corp.	
Corporate Credit Rating	BBB/Negative/NR
Junior Subordinated (1 Issue)	BB+
Preference Stock (1 Issue)	BB+
Senior Unsecured (1 Issue)	BBB
Senior Unsecured (4 Issues)	BBB-
Corporate Credit Ratings History	
27-Jan-2009	BBB/Negative/NR
13-May-2004	BBB/Stable/NR
06-Sep-2002	BBB/Negative/NR
Financial Risk Profile	Aggressive
Related Entities	
PPL Electric Utilities Corp.	
Issuer Credit Rating	A-/Negative/A-2
Commercial Paper	
Local Currency	A-2
Preference Stock (1 Issue)	BBB
Preferred Stock (8 Issues)	BBB
Senior Secured (13 Issues)	A-

Ratings Detail (As Of January 30, 2009)* (cont.)	
Senior Secured (2 Issues)	A/Negative
Senior Secured (3 Issues)	AA/Negative
PPL Energy Supply LLC	
Issuer Credit Rating	BBB/Negative/A-3
Commercial Paper	
Local Currency	A-3
Senior Unsecured (9 Issues)	BBB
PPL Montana LLC	
Senior Secured (1 Issue)	BBB-/Stable
Western Power Distribution Holdings LLP	
Issuer Credit Rating	BBB-/Stable/A-3
Preferred Stock (1 Issue)	BB
Western Power Distribution Holdings Ltd.	
Issuer Credit Rating	BBB-/Stable/A-3
Senior Unsecured (2 Issues)	BBB-
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB+/Stable/A-2
Senior Unsecured (2 Issues)	BBB+
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB+/Stable/A-2
Senior Unsecured (3 Issues)	BBB+

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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July 29, 2009

Summary:
PPL Corp.

Primary Credit Analyst:
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Summary:

PPL Corp.

Credit Rating: BBB/Negative/NR

Rationale

The ratings on PPL Corp. predominantly reflect the business and financial risk profile of supply subsidiary PPL Energy Supply LLC (PPLES). Given the legal ring-fencing provisions in place, Standard & Poor's analyzes PPL Electric Utilities Corp. (PPLEU) and Western Power Distribution Holdings Ltd. (WPD) as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which currently contribute about 20% to PPL's cash flow, temper the merchant risk from PPLES. PPL has about $3.1 billion of debt, excluding debt at affiliates PPLEU and WPD.

We view PPL's and PPLES's business risk profiles as satisfactory (business positions of merchant generators are rated from excellent to vulnerable) due largely to the expiration of the PPLEU's POLR supply contract at the end of 2009, which hitherto provided cash flow stability. The expiration of the long-term contract will increase volatility around realized margins and PPL's liquidity requirements for collateral.

With about 85% of energy produced from base-load assets, PPLES benefits from its low-cost generation base. Moreover, about 70% of its total expected production is under contract in 2009 to serve PPLEU's POLR load. PPLES also enters into short- to medium-term contracts for the fuel and output of its merchant generation assets not committed to PPLEU on a rolling basis. Requirement contracts in markets such as in New Jersey, Illinois, Maryland, Pennsylvania, and Delaware for various volumes and periods have also ensured that a high percentage of PPLES's margins is locked through 2011, which we view favorably.

The hedged percentage drops off in 2012. An exposure to wholesale merchant markets points to the need for PPLES to constantly enter into new contracts to mitigate cash flow volatility. Yet, the company is exposed to the vicissitudes of the wholesale merchant markets because its fleet is essentially a price taker. The expected tightening of reserve margins in the PJM Interconnection has not materialized because of the economic slowdown. Tighter reserve margins will likely be pushed out at least two years even if load growth were to follow a recovery path similar to the recovery experience after recessions in the past. Moreover, the fundamentals that drive power prices are weaker than we expected due to a plunge in demand, demand side response, and milder weather resulting in a load decline that we now estimate at 5%-7% for 2009 (for the supply company's load following obligations). A continuing decline in demand will squeeze gross margins if the expected hedged load does not materialize. Some impact of a lower demand has already manifested itself in reduced RPM prices (rest of RTO price) as well as auctions/RFPs of neighboring utilities (FirstEnergy, Allegheny). While the distribution range for expected gross margin distribution widens in 2011 due to lower hedged levels, potential upside also exists should the economy recover as expected in the longer term.

Consistent with its view of coal-fired generation, PPLES considers that the market for emissions would also remain tight and that installing emissions control equipment is economically more advantageous than using emissions allowances. Also, in anticipation of stricter emissions standards, PPLES spent nearly half of its $2.8 billion capital expenditure during 2006-2008 on emissions control equipment for its larger coal-fired units. Given that the generation assets are unregulated, PPLES cannot recover any of this investment through regulated means.

The business profile is also tempered by uncertainty about the future of competitive markets in Pennsylvania. While Pennsylvania legislation and the Public Utility Commission (PPUC) have generally been supportive of deregulation, and there have been no significant opposition to transition to markets, uncertainty could arise from a meaningful increase in customer rates. The results of the first four concluded request for proposals (RFPs) for about 850 MW each have averaged a full requirements price of about $107 per megawatt-hour (MWh), significantly higher than the rates embedded in the nine-year POLR contract through 2009. While the result of the fifth auction came out significantly lower, in the $85 per MWh range, we estimate that even if the remaining RFP solicitation results in a price of about $80 per MWh, customer bills will still increase by 30%-32% in 2010: an increase that we view as material.

A material decline in wholesale prices in 2009 compared with the average price resulting from the RFPs creates the potential for regulatory/legislative risks. Recognizing the risk posed by a potential rate shock, PPLEU filed a rate smoothing plan (deferred payment option) that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan has since been approved by the PPUC, which we believe could mitigate regulatory risks to an extent as it allows residential and small-business customers to defer increases of more than 25% when higher prices take effect in 2010. Supply procurement after 2010 is also being addressed in a credit supportive manner with the PUC approving plan for procuring supply for 2011 through mid-2013. The procurement plan will seek solicitations for contracts for 12- and 24-month increments, four times a year beginning in the third quarter of 2009, and also spot purchase with a predominant proportion of residential and small commercial customer needs contracted from fixed–price contracts

The low price embedded in the rates in 2009 will pressure margins as it reflects a historic cost structure that's adjusted by an inflationary factor but does not reflect current costs. We also expect PPLES to have near-term negative free cash flow due to its continuing capital spending program. For the period that began in 2007 and continues through 2009, the company's discretionary cash flow will be negative by about $2.0 billion, although we expect this negative position to continually improve through 2009 as the large capital spending program is completed. This deficit is largely being funded by debt and hybrid securities, although some asset sales and a small DRIP program have also funded the program. As a result, adjusted FFO to debt (excluding PPLEU and WPD) had declined to about 20% by the end of 2008 compared to levels of about 26% for the end of 2007. We estimate the ratio to have declined further by mid-2009 from a lower expected load. Similarly, FFO to interest coverage had declined to 3.8x as of June 2009 from about 5.4x at the end of 2007--measures that we consider weak for the rating. Still, the company estimates strong improvement in its financial ratios in 2010 largely from the repricing of its generation portfolio after the end of the rate cap period with PPLEU. With more than 75% of its economic generation contracted, we expect a meaningful improvement in credit measures and FFO to debt could reach levels of about 35% in 2010.

In our opinion, PPLES has had a well established risk management program. We believe that the policies, infrastructure, and methodologies adopted by its trading group are comprehensive. While we are aware that the company does occasionally engage in proprietary trades for price discovery in certain markets, the size and duration of the book of some proprietary trading activity in the second half of 2008 was unanticipated and weighs negatively in our ongoing assessment of the company's risk practices. We note that while risk management has placed restrictions on its trading VAR, a potential mark-to-model loss would be realized, with cash impact over four years. Our financial assessment factors this impact.

Short-term credit factors

Standard & Poor's views PPLES's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPLES (excluding WPD), has strong liquidity, with credit facilities aggregating $4.1 billion in credit facilities, almost $3.5 billion of which matures beyond 2010. We estimate that as of June 30, 2009, there was about $1 billion in LOCs and draws under these facilities, leaving more than $3.0 billion available. Debt maturities at PPL Capital Funding, an intermediate financing subsidiary, and PPLES should be manageable over the next few years. The next significant maturity of $500 million is due 2011.

Based on Standard & Poor's liquidity adequacy ratio, which captures the effects of an adverse credit and market event on a company's primary liquidity sources, PPLES's coverage has improved to more than 2.75x, in large part due to the increased availability under credit facilities. The computation assumes a downside scenario in which PPLES would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for an adverse movement in power and gas prices.

While liquidity is adequate for the moment, market liquidity has contracted due to prevailing credit conditions. PPLES's liquidity requirements for collateral will increase on the expiration of the POLR contract (the current contract caps the collateral posting at $300 million). Post-2009, PPLES's ability to hedge margins will be constrained by its ability to increase overall liquidity levels. Based on the company's historic hedging targets (prompt year: 95%; second year: 75%, third year: 45%), we estimate that the company requires liquidity of $4.5 billion - $5 billion to manage collateral calls from commodity price moves (95% confidence interval). With $685 million of existing capacity maturing in 2009, this results in PPLES's need to renew/establish about $1.5 billion of credit capacity for business operations in 2010. We will monitor the company's efforts to shore up its liquidity requirements.

Outlook

The outlook on parent PPL and PPL Energy Supply is negative. We expect to see a significant improvement in PPL's financials but the current negative outlook reflects its weak financial measures. PPLES's cash flow is expected to improve because the company has contracted much of its 2010 generation at levels that are substantially higher than the capped prices in 2009. However, the negative outlook reflects our doubts that PPL can achieve stronger financial metrics to counter the expected higher business risk volatility. In addition, we expect that the continuing weakness in merchant markets could hurt the company's financial performance in the medium term. Lower ratings could follow if FFO to debt weakens significantly below 20% in 2009 or if the company is unlikely to meet FFO to debt levels in the future that are lower than 32%-35% for 2010. An outlook revision to stable would depend on further clarity about the future of competitive markets in Pennsylvania. An outlook revision will also be predicated on expectations that PPLES's financial risk profile will improve to the significant level in 2010, with FFO to debt reaching levels of about 35%.

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October 9, 2009

Summary:
PPL Corp.

Primary Credit Analyst:
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Summary:

PPL Corp.

Credit Rating: BBB/Negative/NR

Rationale

The ratings on PPL Corp. predominantly reflect the business and financial risk profile of supply subsidiary PPL Energy Supply LLC (PPLES). Given the legal ring-fencing provisions in place, Standard & Poor's analyzes PPL Electric Utilities Corp. (PPLEU) and Western Power Distribution Holdings Ltd. (WPD) as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which contribute about 20% to PPL's cash flow, temper the merchant risk from PPLES.

The expiration of the long-term PPLEU's POLR supply contract, which hitherto provided cash flow stability, at the end of 2009, will increase volatility around realized margins and PPL's liquidity requirements for collateral. As a result, PPL's and PPLES's business risk profiles are "satisfactory" compared with the "strong" position that the company enjoyed under the nine-year POLR supply plan with affiliate PPLEU (business positions of merchant generators are rated from excellent to vulnerable). While PPL's cash flow is expected to improve because the company has contracted much of its 2010 generation at levels that are substantially higher than the capped prices in 2009, the negative outlook also reflects execution risks associated with PPL's ability to achieve stronger financial metrics and counter the higher business risk that will come attendant with its greater merchant exposure.

With about 85% of energy produced from base-load assets, PPLES benefits from its low-cost generation base. Moreover, about 70% of PPLES's total expected production is under contract in 2009 to serve PPLEU's POLR load. PPLES also enters into short- to medium-term contracts for the fuel and output of its merchant generation assets not committed to PPLEU on a rolling basis. Requirement contracts in markets such as New Jersey, Illinois, Maryland, and Delaware for various volumes and periods have also ensured that a high percentage of PPLES's margins are locked through 2011, which we view favorably (98% and 80% of baseload generation for 2010 and 2011, respectively).

Yet, the company is exposed to the vicissitudes of the wholesale merchant markets because its fleet is essentially a price taker. The hedged percentage drops off to levels of about 53% in 2012, and lower levels in 2013 due to regulatory uncertainty on the shape and form of competitive markets. An exposure to wholesale merchant markets points to the need for PPLES to constantly enter into new contracts to mitigate cash flow volatility. Tightening reserve margins had allowed the company to layer in contracts for 2010 and 2011 at margins consistent with its business plans. However, margins may erode should the recessionary slowdown continue in the medium term and should contracts be renewed at lower levels. Furthermore, these contracts expose PPLES's margins to market risks, including but not limited to load shaping, fuel and volume risks.

There is also medium-term exposure to coal prices, which cannot be recovered from ratepayers as the price on the supply contract with PPLEU is capped. Coal requirement for PPL's eastern fleet is almost entirely hedged for 2009 and at levels that match, and somewhat exceed, hedged power sales through 2012. The company maintains strong sourcing availability and coal is supplied from five diverse regions and from 12 different contracts. In 2007, PPLES also signed a contract that will provide one-third of its eastern coal requirement through 2018 and provide fuel supply stability. Still, the percentage of supply to wholly-owned plants at fixed prices has declined from 100% in past years to about 80% in 2009 and is expected to decline to about 22% and 18% for 2010 and 2011, respectively. The rest of the supply is either subject to price collars (with a maximum price to limit exposure) or subject to mining related diesel price surcharges. Additionally, there is no ability to hedge any costs associated with new mining regulations of mines, which are added to base price. To recall, due to extreme volatility and a sharp spike in coal prices during 2008, PPLES's coal costs exceeded estimates and had adversely affected PPL's financial performance. Most requirements are currently sourced at blended prices around $50 per ton.

Consistent with its view of coal-fired generation, PPL considered that the market for emissions would also remain tight and that installing emissions control equipment is economically more advantageous than using emissions allowances. Also, in anticipation of stricter emissions standards, PPLES spent nearly half of its $2.8 billion capital expenditure over the 2006-2008 period on emissions control equipment for its larger coal-fired units. Given that the generation assets are unregulated, PPLES cannot recover any of this investment through regulated means.

The business profile is also tempered by uncertainty about the future of competitive markets in Pennsylvania. While Pennsylvania legislation and the Public Utility Commission (PPUC) have generally been supportive of deregulation, and there have been no significant opposition to transition to markets, uncertainty could arise from a meaningful increase in customer rates. The results of the five concluded request for proposals (RFPs) for about 850 MW each have averaged a full requirements price of about $103 per megawatt-hour (MWh), significantly higher than the rates embedded in the nine-year POLR contract through 2009. Although the fifth auction established prices at about $86 per MWh, significantly lower than the average of $107 per MWh registered in earlier four auctions, we estimate that customer bills would still increase by about 30% in 2010--an increase that we view as material. However, the PPUC approved a RFP procurement plan for 2011, similar to the one for 2010, which suggests that the commission is largely approving of the RFP process. The plan proposes the purchase of electricity supply for 2011 to mid-2014 four times a year, beginning in the third quarter of 2009. The procurement will solicit for contracts for 12- and 24-month increments and also spot purchase with a predominant proportion of residential and small commercial customer needs contracted from fixed–price contracts. The first RFP for 2011 set supply at $88 per MWh--a price higher than our expectation.

Still, the material decline in wholesale prices compared with the average price resulting from the RFPs could elevate regulatory/legislative risks. Recognizing the risk posed by a potential rate shock, PPLEU filed a rate smoothing plan that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan has since been approved by the PPUC, which we believe could mitigate regulatory risks to an extent as it results in relatively moderate (5%-8%) annual increments to customer bills during 2008-2012, instead of a one-time increase in 2010. The decision by the PPUC still leaves open the possibility for an alternative legislative proposal from the Pennsylvania assembly. While House Bill 2200 passed in October 2008, addresses the way in which utilities can purchase power, issues relating to demand-side management, and energy efficiency programs are still unclear. Importantly, it is unclear whether the legislature would still consider rate mitigation proposals.

The low price embedded in the rates in 2009 will pressure margins as it reflects a historic cost structure that is adjusted by an inflationary factor but does not reflect current costs. We also expect PPL to have near-term negative free cash flow due to its continuing capital spending program. For the period that began in 2007 and continues through 2009, the company's discretionary cash flow will be negative by about $2.0 billion, although we expect this negative position to continually improve through 2009 as the large capital spending program is completed. This deficit is largely being funded by debt and hybrid securities, although some asset sales and a small DRIP program have also funded the program. As a result, we estimate that adjusted FFO to debt has declined to just below 20% for the 12-month period ended June 2009 compared to levels of about 26% at year-end 2007. Similarly, FFO to interest coverage has declined to 4.0x as of June 2009 from about 5.4x a year earlier--measures that we consider weak for the rating. Still, the company estimates strong improvement in its financial ratios in 2010 largely from the repricing of its generation portfolio after the end of the rate cap period with PPLEU. With more than 95% of its economic generation contracted, we expect a meaningful improvement in credit measures and FFO to debt could reach levels of about 31%-34%.

In our opinion, PPL has had a well established risk management program. We believe that the policies, infrastructure, and methodologies adopted by its trading group are comprehensive. While we are aware that the company does occasionally engage in proprietary trades for price discovery in certain markets, the size and duration of the book of some proprietary trading activity in the second half of 2008 was unanticipated and weighs negatively in our ongoing assessment of the company's risk practices. We note that while risk management has placed restrictions on its trading VAR, a potential mark-to-model loss would be realized, with cash impact over four years. Our financial assessment factors this impact.

Short-term credit factors

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPLES (excluding WPD), has strong liquidity, with credit facilities aggregating $4.1 billion in credit facilities, almost $3.925 billion of which matures beyond 2010. As of June 30, 2009, there was about $1.1 billion in LOCs and draws under these facilities, leaving about $3.0 billion available. Debt maturities at PPL Capital Funding, an intermediate financing subsidiary, and PPLES should be manageable over the next few years. The next significant maturity of $500 million is not until 2011, followed by a $737 million facility in 2013.

Based on Standard & Poor's liquidity adequacy ratio, which captures the effects of an adverse credit and market event on a company's primary liquidity sources, PPL's coverage has improved to more than 1.5x, in large part due to the increased availability under credit facilities. The computation assumes a downside scenario in which PPL would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for an adverse movement in power and gas prices.

While liquidity is adequate for the moment, there has been a broader reduction in market liquidity due to prevailing credit conditions. PPLES's liquidity requirements for collateral will increase on the expiration of the POLR contract (the current contract caps the collateral posting at $300 million). Post-2009, PPLES's ability to hedge margins will be constrained by its ability to increase overall liquidity levels.

Outlook

The negative outlook on PPL reflects its weak financial measures. We believe the company's financial profile will come under further pressure in 2009 as expected fuel cost increase cannot be passed through in the POLR contract with PPLEU. The ratings could be lowered if FFO to debt weakens to levels materially below 20% from a potential moderation in natural gas prices, or declining market heat rates caused by moderating demand. An outlook revision to stable will be predicated on expectations that PPL's financial risk profile will improve to the intermediate level in 2010, with FFO to debt reaching a range of 31%-34%.

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February 8, 2010

PPL Corp.

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PPL Corp.

Major Rating Factors

Corporate Credit Rating
BBB/Negative/NR

Strengths:

- Stable cash flow generation through hedging activities,
- The 2010 request for proposals averaged a high $99 per MWh,
- Well above the $54 per MWh full requirements prices,
- Regulatory support for the rate mitigation for 2010,
- Some operating diversity in the merchant generation fleet.

Weaknesses:

- Weaker business risk profile after the expiration of a long-term contract with affiliate PPLEU,
- Lower wholesale power and natural gas prices and higher volatility in energy and commodity prices over the past year,
- Lingering regulatory uncertainty over transition to competitive markets in Pennsylvania,
- Negative free cash flow in 2009, and
- Unanticipated trading operations that resulted in a MTM loss in 2008 raised concerns about risk appetite, tolerance levels and efficacy of risk management.

Rationale

The ratings on PPL Corp. predominantly reflect the business and financial risk profile of supply subsidiary PPL Energy Supply LLC (PPL Energy). Given the legal ring-fencing provisions in place, Standard & Poor's analyzes PPL Electric Utilities Corp. (PPLEU) and Western Power Distribution Holdings Ltd. (WPD) as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which contribute about 20% to PPL's cash flow, temper the merchant risk from PPL Energy.

The expiration of the long-term PPLEU's POLR supply contract, which hitherto provided cash flow stability, at the end of 2009, has increased volatility of realized margins and PPL's liquidity requirements for collateral. As a result, PPL's and PPL Energy's business risk profiles are "satisfactory" compared with the "strong" position that the company enjoyed under the nine-year POLR supply plan with affiliate PPLEU (business positions of merchant generators are rated from excellent to vulnerable). While PPL's cash flow is expected to improve because the company has contracted much of its 2010 and 2011 generation at price levels that are substantially higher than the capped prices in 2009, the negative outlook reflects execution risks associated with PPL's ability to achieve stronger financial metrics and counter the higher business risk that will come attendant with its greater merchant exposure.

During the past two to three years, PPL Energy has actively reduced its merchant exposure. Because there was uncertainty surrounding the shape and form of PPLEU's post-transition supply procurement, PPL Energy has progressively entered forward swaps/options energy transactions for physical and financial delivery with utilities/financial counterparties. Unlike the contract with PPLEU, these block sales of power have no load following obligations. From a credit standpoint, we view these contracts as less risky because load following contracts can result in larger liquidity requirements, should prices move adversely from the prices contracted. Furthermore, these contracts expose PPL Energy's margins to market risks, including, but not limited to, load shaping, fuel, and volume risks.

PPL Energy's generation is currently about 99% hedged in 2010. Also, the bulk of total projected margin is under contract through 2011 with more than 88% of generation hedged in that year. Yet, the company is exposed to the vicissitudes of the wholesale merchant markets because its fleet is essentially a price taker. The hedged percentage drops off to about 55% in 2012 and points to the need for PPL Energy to constantly enter into new contracts to mitigate cash flow volatility. While PPL Energy has hedged a high proportion of its economic generation at expected average prices of $68-$70 per MWh, and at margins consistent with its business plans, these forward contracts were partly entered into when market prices were still high. Margins will likely erode, should the economic slowdown linger (forward prices are already lower) and as contracts roll off and can only be renewed at lower price levels.

Despite major regulatory risks having ebbed, PPL's business profile is somewhat tempered by uncertainty about the future of competitive markets in Pennsylvania. The Pennsylvania legislation and the Pennsylvania Public Utilities Commission (PPUC) have generally been supportive of deregulation, and there have been no significant opposition to the transition to markets or to the implementation of new rates. Still, the increase in supply costs for PPLEU's POLR requirement results in a 27% increase in overall rates--an increase that we view as material. The increase in PPLEU's rates is all the more conspicuous, in our view, because the rates will increase disproportionately compared with supply cost increases of other utilities that are also coming off their transition plans.

Recognizing the regulatory risk posed by a rate shock, in 2008, PPLEU filed a rate smoothing plan that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan was approved by the PPUC, which we believe has mitigated regulatory risks to an extent as it results in relatively moderate (5%-8%) annual increments to customer bills during 2008-2012, instead of a one-time increase in 2010. As a result of such deferral plans, we believe the transition to market presents a diminished probability of major adverse legislative or regulatory outcomes.

The low price embedded in the rates in 2009 were expected to pressure margins as they reflect a historic cost structure that is adjusted by an inflationary factor but does not reflect current costs. Yet, we expect financial metrics to improve in 2009 compared with the 2008 levels as operational issues have been resolved and coal prices have declined since the highs in 2008. We estimate PPL's (including PPLEU and WPD as equity investments) adjusted funds from operation (FFO) to debt to improve to about 24.7% from about 16% in 2008. While FFO to debt has improved, it remains low compared with the expectation of 30%-35%: measures that are more consistent with the company's "satisfactory" business risk profile. Ratings are not affected because we expect a significant improvement in the company's financial measures as it exits its capped supply transition period, but our negative outlook captures the current weak financial ratios. Supporting the financial measures, however, is the expectation of a modest free cash flow positive position in 2009.

Short-term credit factors

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPL Energy, excluding WPD, has strong liquidity, with $4.11 billion in credit facilities, $3.2 billion of which matures beyond 2011. As of Dec. 31, 2009, there was about $947 million in LOCs and draws under these facilities, leaving about $3.15 billion available. Debt maturities at PPL Capital Funding and PPL Energy should be manageable over the next few years, with only a $500 million maturity at PPL Energy in 2011 and about $735 million in 2013. Non-discretionary capital expenditure in 2010 aggregates approximately $550 million, which includes environmental expenditure at Brunner Island and replacement of components at Martin's Creek and Montour. Still, discretionary spending at the hydro units at Holtwood and Montana (Project Rainbow) project could be substantial.

Outlook

The negative outlook on PPL reflects its weak financial measures. An outlook revision to stable will be predicated on PPL's financial risk profile improving in 2010, with FFO to debt reaching a range of 31%-33%. Although the forward curve is in contango, recent around-the-clock prices in the PJM have been in the low-$50 area per MWh for 2011 and 2012, and lower than PPL's average hedged price of about $60 per MWh. To maintain ratings, PPL will need to maneuver through potential longer-term depressed market conditions and generate a steady level of cash flow consistent with its debt burden that also allows internal funding of its investment program in a manner that preserves credit quality. The ratings could be lowered if FFO to debt levels do not improve to levels that approach 30%, especially if the company does not achieve a positive free cash flow position.

Business Description

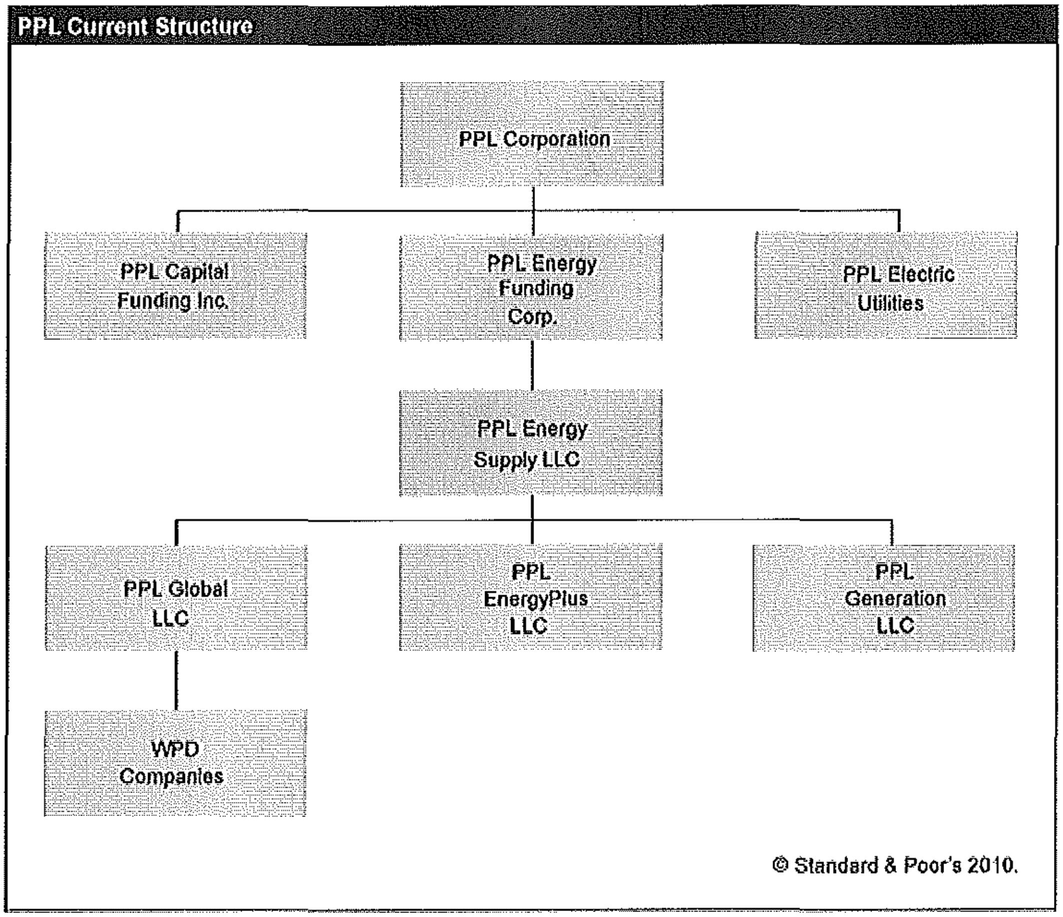
PPL is an Allentown, Pa.-based energy company that owns both regulated and unregulated businesses. The U.S.-based regulated businesses consist of PPLEU, an electricity distribution company for 1.4 million customers in central and eastern Pennsylvania. Other regulated businesses, such as a gas distribution company in Pennsylvania, were divested in 2008.

PPL also owns PPL Energy, an intermediate holding company for both regulated and unregulated operations. The regulated operations of PPL Energy are housed under PPL Global, which provides electric delivery service in the U.K. PPL Global's significant investment is in WPD, a U.K.-based electricity transmission and distribution (T&D) subsidiary providing service to 2.6 million users. WPD companies accounted for 27,700 GWh of electricity deliveries. In 2007, PPL Global divested its significant international investments in Chile and Bolivia for about $850 million.

PPL Energy's unregulated operations include PPL Energy Plus LLC, an electricity and gas marketer for owned generation and purchased power, PPL Generation LLC, which owns and operates PPL's 10,433 MW merchant generation fleet, and PPL Montana LLC, a project-financed subsidiary with about 1,287 MW of merchant generation assets in the Mid-Columbia market. Compared with 2009, PPL's generation reflects the loss of about 60 MW from scrubber installation (de-rating from internal usage) and the closure of two 150 MW old fossil plants. However, about 175 MW of planned uprate projects are currently underway for completion by 2011.

PPL Energy operates predominantly base-load coal and nuclear merchant generation assets in the PJM (9,587 MW, inclusive of the Ironwood toll), PJM West (585 MW), Mid-Columbia (1,286 MW), and New England Power Pool (260 MW). The GenCo has agreed to sell its interest in its New York assets at Shoreham and Edgewood (159 MW) and its nine hydroelectric facilities in Maine (51 MW).

The chart below presents the various entities in the PPL family of companies.



Rating Methodology

The ratings on PPL primarily reflect PPL Energy's business risk profile but also the quality of cash flow of the distributions/dividends that arrive from PPLEU and WPD. Due to various degrees of legal and structural insulation, we treat PPLEU and WPD as equity investments in our analysis. Only the predictability of the expected dividend streams is incorporated into PPL's business risk analysis. On average, these regulated distributions have historically provided about 20% of total cash flow through 2009, but are expected to provide about 15% in future years. The dividends from PPLEU and WPD are assessed for their stability given that all available cash flow is first used to satisfy their own needs before any cash is up-streamed to the parent.

On account of legal ring-fencing provisions in place, PPLEU is rated on a stand-alone basis. However, due to significant business interrelations, we view its default risk as insulated, but not isolated, from the effects of parent PPL. Consequently, Standard & Poor's has determined that the utility can be rated at most two notches above PPL, but only if the utility's stand-alone credit quality merits such separation. Our approach also deconsolidates WPD given the existence of ring-fencing and the fact that the company is domiciled in the U.K. under the regulatory jurisdiction of the Office of Gas and Electricity Markets (OFGEM). OFGEM has emphasized that its regulatory oversight is designed to protect the credit quality of a regulated utility from unregulated parents.

While PPL Montana is project financed and its debt is non-recourse to the parent, PPL has managed PPL Montana as part of its core operations and has provided a financial support through the availability of a $100 million line of credit. As a result, we consider a measure of parental support in addition to PPL Montana's stand-alone credit profile in determining that entity's credit ratings.

Business Risk Profile

Under the plan approved by the PPUC in 1998, PPLEU restructured into an electricity T&D company, with the generation assets housed under PPL Energy, a separate unregulated affiliate. The PPUC required PPLEU to operate as the provider-of-last-resort (POLR) supplier until 2010, with the cost of power passed through to ratepayers. To provide time to transition to market, the restructuring plan also required PPL Energy to enter a long-term supply arrangement to serve PPLEU's POLR load.

PPLEU's POLR obligation hitherto provided stability to cash flow through the end of 2009.

PPL's business risk profile is largely predicated on PPL Energy's business risk profile because of the dominance of PPL Energy's cash flow in the parent's overall cash flow. PPL Energy's cash flow contribution had averaged 70% of PPL's over the past few years. WPD and PPLEU are included only as equity investments in this calculation.

Because of the full requirements contract with PPLEU at capped prices through 2009 (see table 1 below), PPL Energy experienced relatively low variability in cash flow. The POLR contract with PPLEU provided the GenCo with price certainty on about 40,000 GWh, or about 70%, of its expected economic production of about 55,000 GWh. The low-operating risk, the long-term nature of the supply contract, and the GenCo's position as the incumbent utility provider allowed us to assign a "strong" business risk profile to PPL between 2001 and 2009.

Table 1

Annual Capped POLR Supply Prices

	2002	2003	2004	2005	2006	2007	2008	2009
$/MWh	42.30	42.70	44.10	44.10	47.80	48.40	49.10	50.20

While cash flows have increased post transition, so too have merchant risks.

In 2009, we revised the business profile risk of the company to "satisfactory" from "strong" in expectation of the inevitable increase in cash flow volatility in realized margins as PPL Energy's entire generation becomes merchant. We expect the increase in PPL's business risk to be offset to a large extent by an improvement in the company's financial risk profile as a result of higher realized margins in 2010 and beyond. The full requirements contract went into effect back in 2001 as part of the restructuring. Because a historic cost basis was used as a reference, the annual capped prices were not related to actual market prices during the transition period. Although the prices had annual cap adjustments, these increments were pre-determined and not adjusted based on actual escalations in costs.

Power costs and volatility have since increased and the full requirements capped prices have plummeted, especially in the 2006-2008 period. However, wholesale around-the-clock prices were in the range of $60-69 per MWh in 2007 and have declined to about $50 per MWh by first quarter 2010. Full requirements prices can add an incremental 60%-80% premium over wholesale prices. While wholesale merchant net revenues have been eroded in 2010 because of lower demand and natural gas price, compared with the high-price period in 2007 and 2008, full requirement prices are still in the $85-$90 per MWh range (see table 2 below).

During the past two to three years, PPL Energy has actively reduced its merchant exposure. Because there was uncertainty surrounding the shape and form of PPLEU's post-transition supply procurement, PPL Energy has progressively entered forward swaps/options energy transactions for physical and financial delivery with utilities/financial counterparties. Unlike the contract with PPLEU these block sales of power have no load following obligations and are less risky.

PPL Energy's generation is currently about 99% hedged in 2010. Also, the bulk of total projected margin is under contract through 2011 with more than 88% of generation hedged in that year. However, the hedged percentage drops off to about 55% in 2012 and may force PPL Energy to constantly enter into new contracts to mitigate cash flow volatility. While PPL Energy has hedged a high proportion of its economic generation at expected average prices between $68 and $70 per MWh, and at margins consistent with its business plans, these forward contracts were partly entered into when market prices were still high. Margins will likely erode, should the recessionary slowdown linger (forward prices are already lower) and as contracts roll off and can only be renewed at lower price levels.

PPLEU's native load still offers incumbent opportunity.

PPL Energy's current strategy is to enter into short- to medium-term block power contracts for the output of its merchant generation. However, with a number of financial institutions withdrawing from the power markets, it's unlikely, or at best unclear, that PPL Energy will be able to continue hedging its generation through swaps/options transactions in 2012 and beyond.

PPLEU's load still offers PPL Energy the opportunity to hedge its generation in load following contracts. The results of PPLEU's 2010 request for proposal (RFP) prices--six for 850 MW each--have determined a full requirements price (see table 2) averaging about $99 per MWh: significantly higher than the rates embedded in the erstwhile POLR contract. To be clear, these volumes are not contracted with PPL Energy. Rather, PPL Energy Plus (the marketing arm of the PPL group) won some, but not a significant part of the RFPs in which other supply providers also participated. Yet, the results provide anecdotal evidence that PPL Energy has opportunities to hedge its generation at prices significantly higher than the $54 per MWh it received in 2009.

Table 2

PPLEU's RFP Prices

	PPLEU RFP solicitation outcomes								
Supply period	**2010**	**2010**	**2010**	**2010**	**2010**	**2010**	**2011**	**2011**	**2011**
RFP date	July 7, 2010	Oct. 7, 2010	March 8, 2010	Sept. 8, 2010	March 9, 2010	Oct. 9, 2010	Aug. 8, 2010	Oct. 9, 2010	Jan. 10, 2010
($/MWh)									
ATC price	62.5	63.9	68.9	71.5	53	51	57.2	57.7	50.9
Full requirements premium	35.5	41.1	40	40.8	33.8	31	31.5	38.3	37.8
Auction result	98	105	108.9	112.3	86.8	82	88.6	96	88.7
Full requirements premium (%)	56.7	64.4	58.0	57.1	63.8	60.8	55.0	66.3	74.3

Full requirements premium includes gross receipt taxes and line losses.

Portions of PPL Energy's projected output (450 MW) are also committed to NorthWestern until mid-2014, and to various requirements contracts with other transmission and distribution companies. PPL Energy also has existing requirements contracts with the New Jersey Basic Generation Service through 2012. It has also won requirements contracts in the auction markets in Ohio, Maryland, and Delaware for various volumes and periods through 2012.

From a credit standpoint, we view block sales as less risky compared with full requirements obligations because load following contracts can result in larger liquidity requirements, should prices fall from the prices contracted. Furthermore, these contracts expose PPL Energy's margins to market risks, including, but not limited to, load shaping, fuel, and volume risks. Not having to service load following obligations in the current environment is viewed as favorable. For instance, almost 21% of PPLEU's native load is currently shopping, significantly up from the stable 3%-4% level through the transition period when customers paid considerably lower rates.

Lingering regulatory uncertainty in Pennsylvania.

Despite easing of major regulatory risks, PPL's business profile is somewhat tempered by uncertainty about the future of competitive markets in Pennsylvania. The Pennsylvania legislation and the PPUC have generally been supportive of deregulation, and there have been no significant opposition to the transition to markets or to the implementation of new rates. Still, risks could arise from the meaningful increase in customer rates in 2010 over 2009.

In May 2007, PPLEU received approval from the PPUC for six regularly scheduled RFPs, which were held twice a year in March and September 2007-2009, for its 2010 POLR supply requirements. We viewed the phased RFPs as credit supportive for PPLEU and PPL Energy, as each RFP would establish a portion of the supply prices and was expected to mitigate the potential for a rate shock in 2010 by blending in supply prices over time. Conversely, the three-year procurement period also provided PPL with adequate time to adjust its capital structure if supply prices had declined.

The RFP supply procurement proceeded on schedule and four RFPs were completed before the impact of the financial crisis and the ensuing economic slowdown harmed the power markets. Wholesale power prices declined dramatically compared to the prices prevailing around June 2008, when most commodity markets peaked. Table shows our calculations of the blended load following pricing in PPLEU's RFPs and an estimate of the pricing that can be expected currently in the forward markets.

Table 3

Residential And Small Customer (Load Following Component Example)*

Full requirements price	2009 ($/MWh)	2010 ($/MWh)	2010 (% of total)	Prevailing forward markets ($/MWh)
ATC energy		60	67	50
Load shape/congestion		6	7	4.2
Capacity price¶		15	17	15
Volumetric risk		4.3	5	4
Customer migration risk		1	1	0.7
Ancillary		3	3	3
Credit risk		0.5	1	1.2
Net full requirements/load following§	48.1	90	100	78
Line losses	4.1	5.4		5
4.4% gross receipt tax adder	2.1	4		3.4
Full requirements price	54.3	99.1		86.5

*Illustration is the average of the six RFPs completed for 2010. ¶Based on $150 per MW-day and a load factor of 50%. §2009 full requirements price is all incluisve based on the negotiated POLR contract price. Source: PPL Presentations and S&P estimates.

We believe that the material decline in wholesale prices compared with the average price established through the

RFPs poses lingering regulatory risks. Expiring competitive transition charges (CTC) in 2009 of about $11 per MWh soften the impact of the increasing supply component on the overall customer charge in 2010. Still, the increase in supply costs for PPLEU's POLR requirement results in a 27% hike (see table 4) in overall rates--an increase that we view as significant. The increase in PPLEU's rates is all the more conspicuous, in our view, because PPLEU's rates will rise disproportionately compared with supply cost hikes of other utilities that are also coming off their transition plans. This is because PPL's transition to market was ahead of other Pennsylvania utilities by a year (2010, while most others are 2011). As a result, PPLEU's post-transition supply procurement started before the credit crisis, during which prices were still high.

Table 4

Residential Customer (1,000 kWh Per Month)

	2009	2010	Year-over-year increase (%)
($/MWh)			
Distribution	34.8	32.1	
Transmission	7.5	5.4	
Energy and capacity*	54.3	99.1¶	82.5
CTC	10.8	-	
ITC	0	-	
STAS, state taxes	0	0	
Total bill	107.5	136.6	27.1

*Ancillaries included in energy and capacity charge. ¶Based on six solicitations.

Recognizing the regulatory risk posed by a rate shock, in 2008, PPLEU filed a rate smoothing plan that offers customers a phase-in plan to blend into higher rates in 2010 by making additional payments during October 2008 through 2009. The plan was approved by the PPUC, which we believe has mitigated regulatory risks to an extent as it results in relatively moderate (5%-8%) annual increments to customer bills during 2008-2012, instead of a one-time increase in 2010. As a result of such deferral plans, we believe the transition to market presents a diminished probability of major adverse legislative or regulatory outcomes.

Supply procurement after 2010 has also been addressed, which we view favorably. The PPUC has approved the company's electricity purchase plan for 2011, 2012, and the first five months of 2013 in six auctions. The procurement format includes the purchase of electricity supply for 2011 to mid-2013 four times a year, beginning in the third quarter of 2009 (August-July cycle). The procurement plan will solicit contracts for 12 and 24 months increments and spot purchase with a predominant proportion of residential and small commercial customer needs contracted from fixed–price contracts. The price established in three concluded RFPs (table 2) have been higher than our expectations.

Legacy low-cost generation assets are favorable but fuel costs have been on the rise.

While risks for gross margin erosion exist from the recessionary environment, and form low natural gas prices, in the long term, we expect PPL Energy's low-cost, base-load generation assets to benefit from a combination of increasing load factors and as gas increasingly sets the marginal cost of power in both the PJM and Mid-Columbia markets. We estimate that almost 6,000 MW of PPL's eastern base load generation has a dispatch cost (including emission and variable O&M) below $28 per MWh.

To ensure a measure of cash flow stability, the company also hedges fuel requirements, on a rolling basis, to match its forward sales. Uranium is fully contracted through the 2015-2016 with more than 10 suppliers. PPL Energy requires about 9 million tons of coal in the East, split about 7.5 million tons for the wholly-owned Montour and Brunner Island units and 1.5 million tons for Keystone and Conemaugh (which is procured by the operator, Reliant Energy). Eastern coal requirement is almost entirely hedged for 2010 at levels that match up power sales hedges through 2012, although exposure to coal prices increases after 2010. The company maintains strong sourcing availability and coal is supplied from five diverse regions and through 12 different contracts. In 2007, PPL Energy also signed a contract that will provide one-third of its eastern coal requirement through 2018 and provide fuel supply stability.

Still, the percentage of supply to wholly-owned plants at fixed base prices has declined from 100% in past years to about 93% in 2010 and is expected to be about just 28% and 5% for 2011 and 2012, respectively. The rest will be subject to price collars (with a maximum price to limit exposure). Additionally, there is no ability to hedge any costs associated with new mining regulations of mines, which are added to base price. Owning to extreme volatility and a sharp spike in coal prices during 2008, PPL Energy's coal costs exceeded estimates. While coal prices have declined from record highs, the company remains exposed to volatility in prices.

Supply and pricing in the West is not a significant risk as both Colstrip and Corette are either mine mouth facilities or located in close proximity to coal supplies. Supply volumes are also hedged to a high level through 2012.

Operating performance has been satisfactory with some exceptions.

PPL Energy's strategy relies significantly on the operating performance of its merchant generation assets, as out-of-service units expose PPL Energy to open market purchases to meet its contractual obligations. Consequently, the company requires considerable capital expenditures to ensure efficient and reliable operation. PPL Energy's generation assets have generally demonstrated good reliability and availability, with equivalent availability of about 90%. However, in 2008, PPL Energy experienced lower coal plant availability due to the collapse of the substructure surrounding the Montour Unit 1 cooling tower and tube leaks at Brunner Island from superheater performance issues. The Montour unit 1 cooling tower substructure has since been replaced and the Brunner superheater project was also accelerated and completed by first half 2009.

The fleet's generation capacity has increased modestly. In July 2008, PPL Energy acquired the 665 MW AES Ironwood toll in PJM. The first phase of nuclear uprates at Susquehanna unit 1 was completed in 2008, while unit 2 uprate of about 145 MW was completed in 2009. However, the fleet loses about 60 MW from derating after the scrubbers are fully installed.

We view PPL as a forerunner among its peers on environmental compliance. In anticipation of stricter emissions standards, PPL Energy spent about half of its $2.8 billion capital expenditure during 2006-2008 on emissions control equipment for its larger coal-fired units, Brunner Island and Montour (at $360-$390 per kW on about 3,000 MW). The scrubbers at the Montour units were commissioned in 2008, as was the scrubber at Brunner unit 3. The scrubbers at Brunner units 1 and 2 were completed on schedule and budget by the second quarter of 2009. With the Keystone scrubber being commissioned in 2010, all units will be scrubbed. However, Brunner Unit 3 and Conemaugh units 1 and 2 still need SCRs.

WPD's performance was strong, while PPL Montana met our expectation despite operating hiccups.

WPD has two major operating subsidiaries, Western Power Distribution (South West) and Western Power Distribution (South Wales) that distribute electricity to more than 2.6 million customers. The distribution companies have strong business risk profiles that benefit from transparent regulation, a large and mostly residential customer base that provides for revenue and cash flow stability, and their positions as monopoly distributors of electricity. Margins have improved due to market stability, consistent growth, and favorable customer mix.

An established regulatory environment underpins predictable cash flows during the 2005-2010 regulatory period. In late 2004, the companies received a favorable rate determination for the next five-year rate cycle. The utilities receive revenue recovery on a formula of "RPI minus X": RPI is the retail price index (a measure of inflation) and "X" is an efficiency factor. Like all U.K. distribution network operators, however, WPD is exposed to the risk of the regulatory reset every five years. The regulatory risk was underscored in the Office of Gas and Electricity Markets' (OFGEM) August 2009 initial proposals for the 2010-2015 period. The proposed cost of capital is lower than that allowed in other recent regulatory settlements. In addition, the total expenditure allowance is also lower than requested in the companies' final business plans. If implemented as proposed, the reset could harm WPD's financial risk profile.

WPD's operating performance is solid, as illustrated by the two operating companies' outperformance of the key service targets in the latest regulatory assessment (August 2009) by OFGEM. WPD's capital expenditure was in line with regulatory targets in 2009. Despite the favorable regulatory outcome so far, WPD's financial metrics and its subsidiaries are expected to remain low but stable. PPL's strategy is to receive dividends from WPD while providing a minimal level of support.

PPL Montana supplied NorthWestern Inc. with 450 MW at an average of $32 per MWh through July 2007. The below-market nature of the contract paved the way for an extension. While pricing for the supply is materially higher and started at about $45 per MWh and will increase to about $53 per MWh by 2014, the volumes under contract will be lower. Under the term of the contract, PPL Montana is providing varying supply, from a high of 325 MW, on peak, in 2007, down to 200 MW on peak in 2014. Still, with the leveraged lease down to $200 million, the level of debt supports PPL Montana's rating (please see full report on RatingsDirect published Jan. 26, 2010).

Profitability

PPL's profitability is largely driven by the PPL Energy's supply portfolio's performance, which is projected to increase to about 85% of cash flow after 2010. PPL Energy endeavors to ensure margin and cash flow stability by entering into short- to intermediate-term contracts for the expected output of its plants, while hedging a large portion of the expected fuel to be used. We expect 2010 and 2011 to have relatively low variability but with increasing open exposure in 2012. Risks are significantly higher in 2013 and beyond because of potential carbon risks. The forward strip is not liquid and forward prices are still weak.

Financial Risk Profile

Accounting

Due to various degrees of legal and structural insulation, PPL Electric Utilities and WPD are treated as equity investments in Standard & Poor's analysis. As a result, we analyze PPL's credit measures after deconsolidating PPLEU and WPD from PPL, resulting in the removal of nearly $1.57 billion of PPLEU's debt and about $1.94 billion of debt at the WPD companies.

As of Sept. 30, 2009, PPL had $392 million associated with the retirement of long-lived assets as a liability in its consolidated balance sheet as required under SFAS 143 (accounting for asset retirement obligations). Of that amount, $328 million relate to accrued nuclear decommissioning expenses for PPL Energy's 90% interest in the Susquehanna station. The aggregate fair value of the related nuclear plant decommissioning trust fund was $425 million as of Sept. 30, 2009.

PPL Energy's subsidiary, PPL Montana, leases a 50% interest in Colstrip units 1 and 2 and a 30% interest in unit 3 under four 36-year, non-cancellable operating leases. These operating leases are not recorded on PPL Energy's balance sheet, and as a result, Standard & Poor's capitalizes these leases resulting in the addition of about $200 million of off-balance-sheet debt equivalent.

In addition, in June 2008, PPL Energy Plus agreed to acquire the 664 MW AES Ironwood long-term tolling agreement. We impute a $325 million debt related to this tolling agreement.

Corporate governance/Risk tolerance/Financial policies

Standard & Poor's views PPL's financial policy as somewhat aggressive from a bondholder's perspective due to management's emphasis on shareholder returns in the recent past. In 2007-2008, despite its substantial capital expenditure program that resulted in a negative free cash flow, management chose to use about $713 million of the $850 million in sale proceeds from the Latin American divestitures for buying back stock even as the increase in capital spending to address environmental needs necessitated the use of external debt financing. Because of the decline in power prices, we do not expect any share repurchase through the forecast period (2013).

Cash flow adequacy

In 2008, PPL's financial performance and cash flow generation deteriorated from a combination of higher-than-expected coal costs, impact on cash flow from lower coal plant availability due to a major outage at Montour tube leaks at Brunner Island, and from mark-to-model loss on proprietary trading, and marketing losses on forward off-peak energy purchases for 2009-2012.

We expected financial metrics to improve somewhat in 2009 as the issues mentioned above were resolved but did not expect a significant upward momentum because rates were still capped. With coal cost declining and the operational issues resolved, PPL's (including PPLEU and WPD as equity investments) adjusted FFO to debt improved to about 24.7% from about 16% in 2008. While FFO to debt has improved, it remains low compared to the expectation of 30%-35%: measures that are more consistent with the company's business risk profile of "satisfactory". Yet, ratings were not affected because we expect a significant improvement in the company's financials as it exits its capped supply transition period. Our negative outlook reflects the weak financial metrics. Supporting the financial measures, however, is the expectation of a modest free cash flow positive position in 2009 for PPL.

The company expects an improvement in its financial ratios in 2010 largely from the repricing of its generation portfolio after the end of the rate cap period with PPLEU. From a credit perspective, not only has PPL Energy hedged a large portion of its generation through 2012, it has removed much of the variability in cash flow associated with volumetric risks from changing demand under full requirements load obligations. We view the decision not to pursue load following deals as favorable under the prevailing lower price environment. For instance, because of the significant decline in market prices, about 21%, or about 300,000, of PPLEU's customers are currently shopping, up from a fairly stable 4% through much of the capped period. However, PPL's generation does carry basis risk between the delivery hub and the generation busbar. PPL's hedges through block sales using hedges and swaps incorporate the value for capacity, energy and ancillary services, but leave out the riskier load following premium associated with full requirements contracts. The company has also indicated that a large proportion of the hedges are collars, which provide upside should commodity prices recover. The hedge price incorporates the cost of options, which are currently at their floor value due to depressed market prices.

With almost all and 88% of economic generation hedged for 2010 and 2011, respectively, we expect an improvement in credit measures and adjusted FFO to debt could reach 30%-32%. While these financial ratios are on the lower end of the 'BBB' rating, a positive free cash flow position (after dividends and capital expenditures) will be considered adequate to maintain these ratings.

Still, PPL will need to maneuver through potentially longer-term depressed market conditions and generate a steady level of cash flow consistent with its debt burden that also allows internal funding of its investment program in a manner that preserves credit quality. Although the forward curve is in contango, recent around-the-clock prices in the PJM have been in the low-$50 per MWh area for 2011 and 2012, and lower than PPL's average hedged price of about $60 per MWh (energy only). We estimate that on an open EBITDA basis, PPL's generation would make $2.1 billion - $2.2 billion in gross margin in 2012 based on the current forward curve. Yet, should prices move down by 2 standard deviations (5th percentile) we expect gross margins to decline to $1.85 billion - $1.95 billion because of the exposure of about 45% of the fleet's economic generation to market prices.

Liquidity and liability management

PPL's ability to buttress performance in 2009 is most notable in its liquidity management. Below are some of the liquidity enhancing steps taken by the company:

- Limiting of spending on the Bell Bend project to the construction and operating license application (COLAS) related costs.
- The return of $300 million in collateral held by PPLEU relating to the expiration of the long-term contract.
- A one time dividend of $200 million from the after tax completion transition charges (CTC) revenues received by PPLEU during 2009.
- A $200 million distribution received from the recapitalization of subsidiary WPD.

Standard & Poor's views PPL's financial flexibility as adequate due to expected debt maturities and available credit facilities. PPL Energy, excluding WPD, has strong liquidity, with $4.11 billion in credit facilities, $3.2 billion of which matures beyond 2011. As of Dec 31, 2009, there was about $947 million in LOCs and draws under these facilities, leaving about $3.15 billion available. Debt maturities at PPL Capital Funding and PPL Energy should be manageable over the next few years, with only a $500 million maturity at PPL Energy in 2011 and about $735 million in 2013.

Based on Standard & Poor's liquidity adequacy ratio, which captures the effects of an adverse credit and market event on a company's primary liquidity sources, PPL's coverage has improved to more than 3.5x, in large part due to declining power prices. The computation assumes a downside scenario in which PPL would have to post enough collateral to cover its entire negative mark-to-market exposure, while accounting for an adverse movement in power and gas prices.

While liquidity is adequate for the moment, there has been a broader reduction in market liquidity due to prevailing credit conditions. As all generation is now on market, PPL Energy's liquidity requirements for collateral could increase with rising market prices. Thus, PPL Energy's ability to hedge margins will be constrained by its ability to increase overall liquidity levels.

Non-discretionary capital expenditure in 2010 will be approximately $550 million, which includes environmental expenditure at Brunner Island and replacement of components at Martin's Creek and Montour. Still, discretionary spending at the hydro units at Holtwood and Montana (Project Rainbow) project could be substantial.

Capital structure/Asset protection

Adjusted debt to capital remains on the edge for the current rating at about 60% as of the end of 2009. Any improvement in debt leverage will likely be the result of retained earnings and not from decrease in debt levels, as PPL will rely on debt financing for a portion of its planned capital-spending program.

Ratings Detail (As Of February 8, 2010)*	
PPL Corp.	
Corporate Credit Rating	BBB/Negative/NR
Junior Subordinated (1 Issue)	BB+
Preference Stock (1 Issue)	BB+
Senior Unsecured (1 Issue)	BBB
Senior Unsecured (3 Issues)	BBB-
Corporate Credit Ratings History	
27-Jan-2009	BBB/Negative/NR
13-May-2004	BBB/Stable/NR
06-Sep-2002	BBB/Negative/NR
Financial Risk Profile	Significant
Related Entities	
PPL Electric Utilities Corp.	
Issuer Credit Rating	A-/Negative/A-2
Commercial Paper	
Local Currency	A-2
Preference Stock (1 Issue)	BBB
Preferred Stock (8 Issues)	BBB
Senior Secured (13 Issues)	A-
Senior Secured (2 Issues)	A/Developing
PPL Energy Supply LLC	
Issuer Credit Rating	BBB/Negative/NR
Senior Unsecured (9 Issues)	BBB
PPL Montana LLC	
Senior Secured (1 Issue)	BBB-/Stable
Western Power Distribution Holdings Ltd.	
Issuer Credit Rating	BBB-/Negative/A-3
Senior Unsecured (2 Issues)	BBB-
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB+/Negative/A-2
Senior Unsecured (2 Issues)	BBB+
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB+/Negative/A-2
Senior Unsecured (3 Issues)	BBB+

Ratings Detail (As Of February 8, 2010) (cont.)

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

Research Update:

PPL Corp. 'BBB' Credit Rating Placed On Watch Positive On Planned Acquisition Of E.ON U.S. LLC

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Research Update:

PPL Corp. 'BBB' Credit Rating Placed On Watch Positive On Planned Acquisition Of E.ON U.S. LLC

Overview

- We placed the 'BBB' corporate credit ratings on diversified energy company, PPL Corp. (PPL), and affiliate PPL Energy Supply LLC (PPL Energy) on CreditWatch with positive implications.
- The CreditWatch listing follows PPL's proposed acquisition of E.ON U.S. LLC, the parent company of Kentucky Utilities Co. (KU) and Louisville Gas & Electric Co (LGE).
- We affirmed the 'A-' corporate credit rating on utility affiliate PPL Electric Utilities (PPLEU).
- The transaction requires approvals by state regulators in Kentucky, Virginia, and Tennessee, and by the Federal Energy Regulatory Commission.

Rating Action

On April 28, 2010, Standard & Poor's Ratings Services placed its 'BBB' corporate credit ratings on PPL and affiliate PPL Energy on CreditWatch with positive implications following the planned acquisition of E.ON U.S. The CreditWatch listing indicates that we could either raise or affirm the ratings following the completion of our review. At the same time, we are affirming the 'A-' corporate credit ratings on PPLEU. The outlook on PPLEU is negative. We are also affirming the 'BBB+' corporate credit ratings on KU and LGE (see separate research update).

Allentown, Pa.-based PPL has about $4.7 billion of long-term debt at the end of 2009, excluding debt at PPLEU and the Western Power Distribution (WPD) group of companies.

Rationale

PPL will fund the all-cash $7.625 billion (excluding $250 million in related transaction expenses/fees) acquisition through a combination of cash on hand, common equity issuance at PPL, first-mortgage bonds at KU and LGE, and unsecured debt at Kentucky Holdings, KU's intermediate holding company. In addition, PPL will issue equity units at PPL Capital Funding, which will likely receive high equity credit under our rating criteria. The enterprise value includes the assumption of $925 million of tax-exempt pollution control revenue bonds at KU and LGE. We consider the acquisition as large for the company, but note that the transaction will include significant amount of equity financing and utilize about $435 million of tax benefits.

Our CreditWatch listing factors the inclusion of KU and LGE's business risk profiles into PPL's portfolio. The acquisition would include these two fully regulated vertically-integrated electric utilities serving customers in Louisville and its surrounding area. The strengths of these utilities include relatively predictable utility operations and associated cash flows, constructive regulatory environment, and competitive rates. The offsetting factor is the reliance on mostly all coal-fired generation, but the assets are up to date for current environmental requirements and have a significant proportion of future capital spending through 2014 approved in rates.

The inclusion of the two utilities businesses will rebalance PPL's portfolio towards a greater regulated mix. With regulated operations contributing 60%-65% of the overall cash flow after the acquisition compared with about 30% in 2009, the "excellent" business risk profile of the utility businesses will more than offset the "satisfactory" business risk profile of the generation business. This will result in a pro forma "strong" consolidated business risk profile. We expect consolidated debt to EBITDA and debt to capital ratios to range in the "significant" financial risk profile category. Projected FFO to debt at 23.5%-25% will likely support ratings at the higher end of the 'BBB' category on successful completion of the acquisition.

Current ratings on PPL predominantly reflect PPL Energy's business and financial risk profiles. Given the legal ring-fencing provisions in place, Standard & Poor's analyzes PPLEU and WPD as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which contribute about 20% to PPL's cash flow, temper the merchant risk from PPL Energy.

The expiration of PPLEU's long-term provider-of-last-resort (POLR) supply contract, which hitherto provided cash flow stability, has increased volatility of realized margins and PPL's liquidity requirements for collateral. As a result, PPL's and PPL Energy's business risk profiles are "satisfactory" compared with the "strong" position that the company enjoyed under the nine-year POLR supply plan with PPLEU. While PPL's cash flow is expected to improve because the company has contracted much of its 2010 and 2011 generation at price levels that are substantially higher than the capped prices in 2009, existing ratings also reflect a backwardated EBITDA profile and execution risks associated with PPL's ability to achieve stronger financial metrics and counter the higher business risk that will come attendant with its greater merchant exposure.

Short-term credit factors

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPL Energy, excluding WPD, has strong liquidity, with $4.11 billion in credit facilities, $3.2 billion of which matures beyond 2011. As of Dec. 31, 2009, there was about $947 million in LOCs and draws under these facilities, leaving about $3.15 billion available. Debt maturities at PPL Capital Funding and PPL Energy should be manageable during the next few years, with only a $500 million maturity at PPL Energy in 2011 and about $735 million in 2013. Non-discretionary capital expenditure in 2010 aggregates approximately $550 million, which includes environmental expenditure at Brunner Island and replacement of components at Martin's Creek and Montour. Still, discretionary spending at the hydro units at Holtwood and Montana (Project Rainbow) project could be substantial.

CreditWatch

The CreditWatch listing will remain until transaction closing, with periodic updates. At financial close, we could raise the ratings on PPL and PPL Energy by one notch if financing is consistent with our expectation. However, material changes to the expected financial risk profile and cash flow generation capability of the pro forma company could stem this upward momentum. The acquisition requires large permanent financing that has attendant execution risks. We will monitor PPL's ability to finalize permanent financing, which will also influence the CreditWatch listing.

Related Research And Research

Criteria Methodology: Business Risk/Financial Risk Matrix Expanded

Ratings List

Ratings Affirmed; CreditWatch Action		
	To	From
PPL Corp.		
PPL Energy Supply LLC		
Corporate Credit Rating	BBB/Watch Pos/--	BBB/Negative/--
PPL Capital Funding Inc.		
Senior Unsecured	BBB-/Watch Pos	BBB-
Junior Subordinated	BB+/Watch Pos	BB+
PPL Capital Funding Trust I		
Preference Stock	BB+/Watch Pos	BB+
PPL Energy Supply LLC		
Senior Unsecured	BBB/Watch Pos	BBB
Ratings Affirmed		
PPL Electric Utilities Corp.		
Corporate Credit Rating	A-/Negative/A-2	
PPL Capital Trust		
Preferred Stock	BBB	
PPL Electric Utilities Corp.		
Senior Secured	A-	

Recovery Rating	1
Preferred Stock	BBB
Preference Stock	BBB
Commercial Paper	A-2

1

Complete ratings information is available to RatingsDirect on the Global Credit Portal subscribers at www.globalcreditportal.com and RatingsDirect subscribers at www.ratingsdirect.com. All ratings affected by this rating action can be found on Standard & Poor's public Web site at www.standardandpoors.com. Use the Ratings search box located in the left column.

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July 28, 2010

Summary:
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Summary:
PPL Corp.

Credit Rating: BBB/Watch Pos/NR

Rationale

Standard & Poor's 'BBB' corporate credit ratings on PPL and affiliate PPL Energy are on CreditWatch with positive implications following the planned acquisition of E.ON U.S. LLC. The CreditWatch listing indicates that we could either raise or affirm the ratings after we complete our review.

Allentown, Pa.-based PPL had about $4.7 billion of long-term debt at the end of 2009, excluding debt at PPL Electric Utilities Corp. (PPLEU) and the Western Power Distribution (WPD) group of companies.

When PPL announced the E.ON transaction in April 2010, it had proposed to fund the all-cash $7.625 billion (excluding $250 million in related transaction expenses/fees) acquisition through a combination of cash on hand, common equity issuance at PPL, first-mortgage bonds at Kentucky Utilities Co. (KU) and Louisville Gas & Electric Co. (LGE), unsecured debt at Kentucky Holdings, and issuance of equity units at PPL Capital Funding. PPL will issue equity units at PPL Capital Funding. These units will receive high equity credit under our rating criteria. The enterprise value also includes the assumption of $925 million of tax-exempt pollution control revenue bonds at KU and LGE. We consider the acquisition as large for the company, but note that the transaction includes a significant amount of equity financing and has about $435 million of tax benefits.

In June 2010, PPL successfully raised about $2.4 billion of common equity and placed $1.12 billion worth of equity units. We view PPL's ability to raise almost $3.5 billion in equity and equity-like funds to partly finance the acquisition as supportive of credit quality.

Our CreditWatch listing factors the inclusion of KU and LGE's business risk profiles into PPL's portfolio. The acquisition would include these two fully regulated vertically-integrated electric utilities serving customers in Louisville and its surrounding area. The strengths of these utilities include relatively predictable utility operations and associated cash flows, a constructive regulatory environment, and competitive rates. The offsetting factor is the reliance on mostly all coal-fired generation, but the assets are up to date for current environmental requirements and have a significant proportion of future capital spending through 2014 approved in rates.

The inclusion of the two utilities businesses will rebalance PPL's portfolio toward a greater regulated mix. With regulated operations contributing 60% to 65% of the overall cash flow after the acquisition compared with about 30% in 2009, the "excellent" business risk profile of the utility businesses will more than offset the "satisfactory" business risk profile of the generation business. This will result in a pro forma "strong" consolidated business risk profile. We expect consolidated debt to EBITDA and debt to capital ratios to range in the "significant" financial risk profile category. Projected funds from operations (FFO) to debt at 23.5% to 25% will likely support ratings at the higher end of the 'BBB' category on successful completion of the acquisition.

PPL has made a host of commitments to the Kentucky Public Service Commission (PSC), including agreeing to retain the LGE/KU headquarters in Louisville for another 15 years, promising no merger-related job cuts and agreeing to keep the utilities' current management. Still, we believe that the transaction has risks. While PPL has asserted that the transaction is not predicated on merger synergies, the PSC has asked the company to explain why it has not undertaken a detailed analysis of potential merger synergies. The PSC is also exploring whether PPL's operations in Pennsylvania exposes KU to market risks associated with operating in restructured electricity markets. Hearings on the merger are scheduled in September 2010 and a final order expected by late September. We also note that LGE and KU have unrelated rate cases pending with the PSC.

Current ratings on PPL mostly reflect PPL Energy's business and financial risk profiles. Given the legal ring-fencing provisions in place, Standard & Poor's analyzes PPLEU and WPD as equity investments, with dividends to PPL as their primary contribution to the consolidated entity. The lower-risk dividends from these two companies, which contribute about 20% to PPL's cash flow, temper the merchant risk from PPL Energy.

The expiration of PPLEU's long-term provider-of-last-resort (POLR) supply contract, which hitherto provided cash flow stability, has increased volatility of realized margins and PPL's liquidity requirements for collateral. As a result, PPL's and PPL Energy's business risk profiles are "satisfactory" compared with the "strong" position that the company enjoyed under the nine-year POLR supply plan with PPLEU. While PPL's cash flow is expected to improve because the company has contracted much of its 2010 and 2011 generation at price levels that are substantially higher than the capped prices in 2009, existing ratings also reflect a backwardated EBITDA profile and execution risks associated with PPL's ability to achieve stronger financial metrics and counter the higher business risk that will come attendant with its greater merchant exposure.

Short-term credit factors

Standard & Poor's views PPL's financial flexibility as adequate, in light of expected debt maturities and available credit facilities. PPL Energy, excluding WPD, has strong liquidity, with $4.11 billion in credit facilities, $3.2 billion of which matures beyond 2011. As of Dec. 31, 2009, there was about $947 million in letters of credit and draws under these facilities, leaving about $3.15 billion available. Debt maturities at PPL Capital Funding and PPL Energy should be manageable during the next few years, with only a $500 million maturity at PPL Energy in 2011 and about $735 million in 2013.

Nondiscretionary capital expenditures in 2010 total about $550 million, which includes environmental spending at the Brunner Island plant and replacement of components at the Martin's Creek and Montour plants. Still, discretionary spending at the hydro units at Holtwood and Montana (Project Rainbow) project could be substantial.

CreditWatch

The CreditWatch listing will remain until the transaction closes, with periodic updates. At financial close, we could raise the ratings on PPL and PPL Energy by one notch. However, material changes to the cash flow generation capability of the pro forma company or its expected financial risk profile could stem this upward momentum.

Related Criteria And Research

Criteria Methodology: Business Risk/Financial Risk Matrix Expanded, published May 27, 2009.

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October 27, 2010

Research Update:

PPL Corp. Upgraded To 'BBB+' And Off CreditWatch On Expected Closing Of E.ON Acquisition

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Research Update:

PPL Corp. Upgraded To 'BBB+' And Off CreditWatch On Expected Closing Of E.ON Acquisition

Overview

- We resolved the CreditWatch listing on diversified energy company PPL Corp. and affiliate PPL Energy Supply LLC (PPL Energy) on the expected Nov. 1, 2010, acquisition of E.ON U.S. LLC and its utility subsidiaries, Louisville Gas & Electric Co. (LG&E) and Kentucky Utilities Co. (KU), for $7.625 billion.
- We are upgrading PPL and PPL Energy to 'BBB+' from 'BBB' to reflect the pro forma consolidated company's expected stronger credit profile due to a reconfigured business strategy that we expect will garner at least two-thirds of the projected operating cash flows from fully regulated utilities. The outlooks are stable.
- We are revising the outlook on utility affiliate PPL Electric Utilities (PPLEU) to stable from negative and affirming the 'A-' corporate credit rating.
- We are affirming the 'BBB+' corporate credit ratings on E.ON, LG&E, and KU. The outlooks are stable.
- We are raising the issue rating to 'A/A-2' from 'BBB+' and assigning a '1+' recovery rating on LG&E's approximately $575 million of outstanding tax-exempt pollution control bonds to reflect the addition of first mortgage bonds as collateral and their secured status.

Rating Action

On Oct. 27, 2010, Standard & Poor's Ratings Services raised the corporate credit ratings on PPL and PPL Energy to 'BBB+' from 'BBB'. At the same time, we removed the ratings from CreditWatch with positive implications, where we put them on April 28, 2010, following the acquisition announcement. The outlooks are stable. We affirmed the 'A-' rating on PPLEU and revised the outlook to stable from negative. In addition, we affirmed the 'BBB+' ratings on LG&E and KU, and their parent, E.ON U.S. The outlooks are stable. Also, we raised the ratings on LG&E's approximately $575 million of tax-exempt pollution control revenue bonds to 'A' from 'BBB+' to reflect the addition of first mortgage bonds as collateral for the duration of the bonds. For these newly collateralized bonds, we are assigning a recovery rating of '1+', reflecting our highest expectation of full recovery of principal (100% recovery) in a default scenario. Following the closing of acquisition, E.ON U.S. will change its name to LG&E and KU Energy LLC.

The upgrade reflects our opinion of an improved credit profile of the consolidated company following the acquisition closing. The inclusion of regulated LG&E and KU into the PPL portfolio is expected to contribute at least two-thirds of overall operating cash flow compared with existing majority of cash flow coming from unregulated operations. In our opinion, the excellent business risk profiles of the regulated utilities will more than offset PPL Energy's satisfactory business risk profile. This results in a pro forma strong consolidated business risk profile. We expect consolidated debt to EBITDA and debt to capital ratios to range in the significant financial risk profile category.

Rationale

For the $6.7 billion cash portion of the $7.625 billion acquisition (excluding $250 million in related transaction expenses/fees), PPL will use cash on hand, approximately $2 billion of LG&E and KU debt, and $800-$900 million of senior unsecured debt at LG&E and KU Energy LLC (intermediate holding company) that will ultimately be issued. In order to complete the acquisition, PPL will draw down its PPL Energy credit facility by about $3 billion after which it is expected to conduct permanent financing that will be used to repay the short-term outstanding debt. PPL has also issued $2.4 billion of common equity and PPL Capital Funding issued $1.1 billion of equity units that receive high equity credit under our rating criteria.

Allentown, Pa.-based PPL has about $4.7 billion of long-term debt excluding debt at PPLEU and the Western Power Distribution (WPD) group of companies. Excluding PPLEU and WPD debt, pro forma PPL debt is expected to be about $9 billion.

LG&E and KU are fully regulated vertically-integrated electric utilities serving customers in Louisville and its surrounding area. The strengths of these utilities include relatively predictable utility operations and associated cash flows, constructive regulatory environment, and competitive rates. The offsetting factor is the reliance on a fleet of mostly coal-fired generation, but the assets are up to date for current environmental requirements and have a significant proportion of future capital spending through 2014 approved in rates.

For PPL Energy, the expiration of PPLEU's long-term provider-of-last-resort (POLR) supply contract, which hitherto provided cash flow stability, has increased volatility of realized margins and liquidity requirements for collateral. While PPL Energy's cash flow is expected to improve because it has contracted much of its 2010 and 2011 generation at substantially higher prices than in 2009, Ratings also reflect a backward-dated EBITDA profile and execution risks associated with PPL Energy's ability to achieve stronger financial metrics and counter the higher business risk that will come attendant with its greater merchant exposure. Market fundamentals also have weakened. The expected tightening of reserve margins in the PJM Interconnection has not materialized because of the economic slowdown. Some drop in demand has depressed RPM prices (rest of RTO price) as well as auctions/RFPs of neighboring utilities (FirstEnergy, Allegheny). We consider PPL's financial risk profile to be significant, with adjusted financial measures expected to be in line for the rating. We expect that financial measures will continue at current levels as full cost recovery following the acquisition. We expect consolidated debt to EBITDA and debt to capital ratios to range in the significant financial risk profile category. Projected FFO to debt in the 22%-23% range is expected to support ratings at the higher end of the 'BBB' category.

Short-term credit factors

The short-term rating on PPL and affiliates is 'A-2'. Standard & Poor's views PPL's liquidity as strong under its corporate liquidity methodology, which categorizes liquidity in five standard descriptors. Projected sources of liquidity, mainly operating cash flow and available bank lines, exceed projected uses, mainly necessary capital expenditures, debt maturities, and common dividends, by more than 1.5x. Sources over uses would be positive even after a 50% EBITDA decline. Additional factors that support the liquidity are PPL's ability to absorb high-impact, low-probability events with limited need for refinancing, its flexibility to lower capital spending, its sound bank relationships, its solid standing in credit markets, and generally prudent risk management. We will assess the pro forma liquidity of newly combined company once bank credit facilities and other short-term financing have been finalized.

Outlook

The stable outlook on PPL and its subsidiaries, and those of LG&E and KU, reflect our expectation that management will maintain a strong business profile by focusing on its regulated utilities and not increase unregulated operations beyond current levels. The outlook also reflects expectations that cash flow protection and debt leverage measures will be in line for the rating. Specifically, our baseline forecast includes FFO to total debt of about 23%, debt to EBITDA under 4x, and debt leverage to total capital of about 52%, consistent with our expectations for the 'BBB+' rating. Given the company's mostly regulated focus, we expect that PPL will avoid any meaningful rise in business risk by reaching constructive regulatory outcomes and not expand its unregulated operations. We could lower the ratings if unregulated cash flow expectations lag due to weaker demand for power in the PJM market or forecasted financial measures are not sustained at expected levels. Although unlikely over the intermediate term, we could raise ratings if the business risk profile moves further towards excellent and financial measures exceed our base line forecast on a consistent basis, including FFO to total debt in excess of 23%, debt to EBITDA below 4x, and debt to total capital around 50%.

Related Criteria And Research

- 2008 Corporate Criteria: Analytical Methodology
- Criteria Methodology: Business Risk/Financial Risk Matrix Expanded
- 2008 Corporate Criteria: Ratios And Adjustments
- Methodology And Assumptions: Standard & Poor's Standardizes Liquidity Descriptors For Global Corporate Issuers

Ratings List

Upgraded; CreditWatch/Outlook Action

	To	From
PPL Corp.		
PPL Energy Supply LLC		
Corporate Credit Rating	BBB+/Stable/--	BBB/Watch Pos/--
PPL Capital Funding Inc.		
Senior Unsecured	BBB	BBB-/Watch Pos
Junior Subordinated	BBB-	BB+/Watch Pos
PPL Capital Funding Trust I		
Preference Stock	BBB-	BB+/Watch Pos
PPL Energy Supply LLC		
Senior Unsecured	BBB+	BBB/Watch Pos

Ratings Affirmed/Outlook Action

PPL Electric Utilities Corp.		
Corporate Credit Rating	A-/Stable/A-2	A-/Negative/A-2
Senior Secured	A-	
Recovery Rating	1	
Preference Stock	BBB	
Commercial Paper	A-2	

Ratings Affirmed

E.ON U.S. LLC	
Louisville Gas & Electric Co.	
Kentucky Utilities Co.	
Corporate credit rating	BBB+/Stable/--

Upgraded	To	From
Louisville Gas & Electric Co.		
$575M tax-exempt pollution control bonds	A/A-2	BBB

Rating Assigned

Louisville Gas & Electric Co.	
Recovery rating	1+

Complete ratings information is available to RatingsDirect subscribers on the Global Credit Portal at www.globalcreditportal.com and RatingsDirect subscribers at www.ratingsdirect.com. All ratings affected by this rating action can be found on Standard & Poor's public Web site at www.standardandpoors.com. Use the Ratings search box located in the left column.

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November 15, 2010

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PPL Corp.

Major Rating Factors

Corporate Credit Rating
BBB+/Stable/NR

Strengths:

- Regulated utilities produce recurring operating cash flow;
- Low-cost coal and nuclear generation;
- Operating diversity in merchant generation fleet; and,
- Merchant generation has been contributing stable cash flow due to hedging activities.

Weaknesses:

- More than one-third of consolidated cash flow from riskier unregulated operations;
- Exposure to potentially stricter environmental standards, especially regarding carbon dioxide; and
- Cash flow erosion from lower power prices.

Rationale

The ratings on PPL Corporation reflect the regulated cash flows of vertically integrated utility subsidiaries Kentucky Utilities Co. (KU) and Louisville Gas & Electric Co. (LG&E), along with dividend payments from PPL Electric Utilities Corp. (PPLEU) and Western Power Distribution Holdings Ltd. (WPD), both of which we, for our analysis, consider as equity investments of PPL. When determining PPL's credit quality, we consider the predictability of PPLEU's and WPD's dividend contributions to PPL since the utilities are considered to be insulated from the rest of PPL through structural enhancements that restrict, to some extent, the utilities' business and financial activities. In conjunction with these regulated cash flows is the higher business risk of unregulated generation owned through PPL Energy Supply LLC (PPL Energy). After incorporating these various affiliates, we consider PPL's business risk profile to be 'strong'. Allentown, Pa.-based PPL has about $9 billion of long-term debt excluding that of WPD and PPLEU.

PPL's strong business risk profile reflects 'excellent' business risk profiles for the vertically integrated utilities KU and LG&E, and electric T&D utility PPLEU and WPD's electric distribution utilities. PPL Energy's business risk profile is considered 'satisfactory', reflecting the merchant status of the generation portfolio. LG&E and KU, subsidiaries of PPL's intermediate holding company LG&E and KU Energy LLC, serve electric and natural gas customers scattered throughout Kentucky, including Louisville and Lexington. The strengths of these utilities include relatively predictable utility operations with steady cash flows, constructive cost recovery, and relatively low rates derived from low-cost coal-fired generation. Although generation is mostly coal-fired, the plants meet current environmental requirements and have a significant amount of capital spending through 2014 that should be recoverable through rates. PPLEU is a low-risk regulated electric T&D utility that serves about 1.4 million customers in central and eastern Pennsylvania. Residential and commercial customers comprise about 80% of the utility's sales. PPLEU's credit profile benefits from an automatic adjustment mechanism for recovery of future transmission-related costs and a rate rider that provides for the pass through of power costs to ratepayers outside a base rate proceeding. The future of competitive power markets in Pennsylvania continues to temper the utility's business profile. PPLEU's insulation does not isolate it from PPL's credit quality, and lower ratings on PPL could result in lower ratings on PPLEU. WPD is a United Kingdom-based holding company that serves 2.6 million customers through electric distribution subsidiaries Western Power Distribution (South West) PLC and Western Power Distribution (South Wales) PLC.

PPL Energy is the intermediate holding company for WPD and roughly 11,500 MW of unregulated generation that consists of well-located low-cost nuclear and coal plants. With the expiration at the end of 2009 of a long-term supply contract with affiliate PPLEU, PPL Energy's cash flow is expected to improve since most of its 2010 and 2011 generation is under contract at substantially higher prices. However, there is increased margin volatility and greater collateral requirements that require more liquidity. Credit quality is negatively affected from lingering uncertainty surrounding the competitive generation market in Pennsylvania. Potential systemic negative drivers include low natural gas prices that would affect the dark spread between coal and natural gas fired generation assets and a significantly more restrictive environmental standard than currently expected. We consider PPL's financial risk profile to be 'significant' and expect adjusted financial measures to be in line for the rating. For our forecasts of PPL, we consider PPLEU and WPD as equity investments and remove all their outstanding debt when we deconsolidate these two affiliates from PPL. Projected funds from operation (FFO) to debt in the 22%-23% range and debt to total capital of about 52% would support ratings at the higher end of the 'BBB' category. Projected debt to EBITDA around 4x would further support the rating. Projected free operating cash flow is expected to be positive, but with net cash flow (FFO less dividends) projected to be less than capital spending levels, external financing would be necessary. FFO interest coverage is projected to exceed 5x.

Short-term credit factors

Standard & Poor's views PPL's liquidity as 'strong' under its corporate liquidity methodology, which categorizes liquidity in five standard descriptors. 'Strong' liquidity supports PPL's 'BBB+' issuer credit rating. Projected sources of liquidity, mainly operating cash flow and available bank lines, exceed projected uses, mainly necessary capital expenditures, debt maturities, and common dividends, by more than 1.5x. Sources over uses would be positive even after a 50% EBITDA decline. Additional factors that support the liquidity are PPL's ability to absorb high-impact, low-probability events with limited need for refinancing, its flexibility to lower capital spending, its sound bank relationships, its solid standing in credit markets, and generally prudent risk management. Debt maturities at PPL's funding entity PPL Capital Funding and PPL Energy should be manageable during the next few years, with a $500 million maturity at PPL Energy in 2011 and about $735 million in 2013. For PPLEU, the only significant maturity through 2014 is a $400 million issuance due in 2013.

Outlook

The stable outlook on PPL and its affiliates reflect our expectation that management will maintain a strong business profile by focusing on its regulated utilities and not increasing unregulated operations beyond current levels. The outlook also reflects expectations that cash flow protection and debt leverage measures will be in line for the rating. Specifically, our baseline forecast includes FFO to total debt of about 23%, debt to EBITDA under 4x, and debt leverage to total capital of about 52%, consistent with our expectations for the 'BBB+' rating. Given the company's mostly regulated focus, we expect that PPL will avoid any meaningful rise in business risk by reaching constructive regulatory outcomes and not expanding its unregulated operations. We could lower the ratings if unregulated cash flow expectations lag due to weaker demand for power in the PJM market, or forecasted financial measures are not sustainable at expected levels. Although unlikely over the intermediate term, we could raise ratings if the business risk profile is considered 'excellent' and financial measures exceed our base line forecast on a consistent basis, including FFO to total debt in excess of 23%, debt to EBITDA below 4x, and debt to total capital around 50%.

Table 1.

PPL Corp. -- Peer Comparison*

Industry Sector: Energy

	PPL Corp.	Allegheny Energy Inc.	FirstEnergy Corp.	Public Service Enterprise Group Inc.
Rating as of Nov. 8, 2010	BBB+/Stable/--	BBB-/Stable/--	BBB-/Stable/--	BBB/Stable/A-2
	--Average of past three fiscal years--			
(Mil. $)				
Revenues	3,174.5	3,260.6	13,095.3	12,061.4
Net income from cont. oper.	351.1	400.2	1,219.0	1,380.4
Funds from operations (FFO)	992.0	793.3	2,506.1	2,231.4
Capital expenditures	999.8	976.9	2,652.6	1,599.3
Cash and short-term investments	464.7	302.5	516.0	337.4
Debt	4,834.9	4,288.6	16,572.5	8,389.1
Preferred stock	250.0	0.0	0.0	80.0
Equity	2,758.6	2,844.1	8,605.7	7,719.8
Debt and equity	7,593.5	7,132.7	25,178.2	16,108.8
Adjusted ratios				
EBIT interest coverage (x)	2.8	3.2	2.5	5.8
FFO int. cov. (X)	4.8	3.8	3.1	5.4
FFO/debt (%)	20.5	18.5	15.1	26.6
Discretionary cash flow/debt (%)	(7.9)	(6.6)	(5.4)	0.6
Net cash flow / capex (%)	48.6	73.4	69.9	99.5
Total debt/debt plus equity (%)	63.7	60.1	65.8	52.1
Return on common equity (%)	11.8	13.7	13.2	18.6
Common dividend payout ratio (un-adj.) (%)	139.7	19.0	53.5	46.5

*Fully adjusted (including postretirement obligations).

Table 2.

PPL Corp. -- Financial Summary*

Industry Sector: Energy

	--Fiscal year ended Dec. 31--				
	2009	**2008**	**2007**	**2006**	**2005**
Rating history	BBB/Negative/--	BBB/Stable/--	BBB/Stable/--	BBB/Stable/--	BBB/Stable/--
(Mil. $)					
Revenues	3,548.2	3,787.6	2,187.7	2,847.6	2,298.9
Net income from continuing operations	30.2	466.3	556.7	436.5	316.1
Funds from operations (FFO)	1,274.7	720.8	980.4	913.7	699.6
Capital expenditures	704.8	1,260.2	1,034.2	781.9	449.4
Cash and short-term investments	311.3	765.4	317.5	800.6	254.1
Debt	5,110.2	5,572.6	3,822.0	3,469.8	3,670.1
Preferred stock	250.0	250.0	250.0	0	0
Equity	2,875.4	2,726.6	2,673.9	2,903.0	2,317.2

Table 2.

PPL Corp. -- Financial Summary* (cont.)					
Debt and equity	7,985.6	8,299.2	6,495.8	6,372.8	5,987.4
Adjusted ratios					
EBIT interest coverage (x)	1.2	3.5	3.8	3.6	2.5
FFO int. cov. (x)	5.9	3.6	5.0	4.8	4.5
FFO/debt (%)	24.9	12.9	25.7	26.3	19.1
Discretionary cash flow/debt (%)	10.0	(18.1)	(17.1)	(4.8)	(1.0)
Net Cash Flow / Capex (%)	105.1	16.9	48.8	64.5	99.0
Debt/debt and equity (%)	64.0	67.1	58.8	54.4	61.3
Return on common equity (%)	(0.5)	16.8	19.1	15.8	13.1
Common dividend payout ratio (un-adj.) (%)	1,723.7	105.3	82.5	93.7	0

*Fully adjusted (including postretirement obligations).

Table 3.

Reconciliation Of PPL Corp. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)*

	--Fiscal year ended Dec. 31, 2009--									
PPL Corp. reported amounts										
	Debt	**Shareholders' equity**	**Operating income (before D&A)**	**Operating income (before D&A)**	**Operating income (after D&A)**	**Interest expense**	**Cash flow from operations**	**Cash flow from operations**	**Dividends paid**	**Capital expenditures**
Reported	4,198.5	2,607.4	458.3	458.3	232.2	190.5	1,365.5	1,365.5	517.0	703.8
Standard & Poor's adjustments										
Operating leases	773.5	--	112.5	41.2	41.2	41.2	71.3	71.3	--	43.0
Intermediate hybrids reported as debt	(250.0)	250.0	--	--	--	(16.8)	16.8	16.8	16.8	--
Postretirement benefit obligations	324.8	--	32.8	32.8	32.8	0.4	17.5	17.5	--	--
Accrued interest not included in reported debt	63.4	--	--	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	--	42.0	(42.0)	(42.0)	--	(42.0)
Share-based compensation expense	--	--	--	23.0	--	--	--	--	--	--
Reclassification of nonoperating income (expenses)	--	--	--	--	(9.0)	--	--	--	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	--	(475.8)	--	--
Minority interests	--	18.0	--	--	--	--	--	--	--	--

Table 3.

Reconciliation Of PPL Corp. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)* (cont.)										
US decommissioning fund contributions	--	--	--	--	--	--	(26.0)	(26.0)	--	--
Other	--	--	--	--	--	--	347.5	347.5	--	--
Total adjustments	911.7	268.0	145.3	97.0	65.0	66.9	385.0	(90.8)	16.8	1.0

Standard & Poor's adjusted amounts

	Debt	Equity	Operating income (before D&A)	EBITDA	EBIT	Interest expense	Cash flow from operations	Funds from operations	Dividends paid	Capital expenditures
Adjusted	5,110.2	2,875.4	603.6	555.3	297.2	257.4	1,750.5	1,274.7	533.8	704.8

*PPL Corp. reported amounts shown are taken from the company's financial statements but might include adjustments made by data providers or reclassifications made by Standard & Poor's analysts. Please note that two reported amounts (operating income before D&A and cash flow from operations) are used to derive more than one Standard & Poor's-adjusted amount (operating income before D&A and EBITDA, and cash flow from operations and funds from operations, respectively). Consequently, the first section in some tables may feature duplicate descriptions and amounts.

Related Criteria And Research

- 2008 Corporate Criteria: Analytical Methodology
- Criteria Methodology: Business Risk/Financial Risk Matrix Expanded
- 2008 Corporate Criteria: Ratios And Adjustments
- Methodology And Assumptions: Standard & Poor's Standardizes Liquidity Descriptors For Global Corporate Issuers

Ratings Detail (As Of November 15, 2010)*	
PPL Corp.	
Corporate Credit Rating	BBB+/Stable/NR
Junior Subordinated (2 Issues)	BBB-
Preference Stock (1 Issue)	BBB-
Senior Unsecured (3 Issues)	BBB
Corporate Credit Ratings History	
27-Oct-2010	BBB+/Stable/NR
28-Apr-2010	BBB/Watch Pos/NR
27-Jan-2009	BBB/Negative/NR
Business Risk Profile	Strong
Financial Risk Profile	Significant
Related Entities	
Kentucky Utilities Co.	
Issuer Credit Rating	BBB+/Stable/A-2
Senior Secured (3 Issues)	A
Senior Secured (7 Issues)	A/A-2
LG&E and KU Energy LLC	
Issuer Credit Rating	BBB+/Stable/--

Ratings Detail (As Of November 15, 2010) (cont.)	
Senior Unsecured (2 Issues)	BBB
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB+/Stable/NR
Senior Secured (2 Issues)	A
Senior Secured (11 Issues)	A/A-2
Senior Unsecured (1 Issue)	A/A-2
PPL Electric Utilities Corp.	
Issuer Credit Rating	A-/Stable/A-2
Commercial Paper	
Local Currency	A-2
Preference Stock (1 Issue)	BBB
Senior Secured (6 Issues)	A-
Senior Secured (2 Issues)	A/Developing
PPL Energy Supply LLC	
Issuer Credit Rating	BBB+/Stable/NR
Senior Unsecured (12 Issues)	BBB+
PPL Montana LLC	
Senior Secured (1 Issue)	BBB-/Stable
Western Power Distribution Holdings Ltd.	
Issuer Credit Rating	BBB-/Stable/A-3
Senior Unsecured (2 Issues)	BBB-
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB+/Stable/A-2
Senior Unsecured (3 Issues)	BBB+
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB+/Stable/A-2
Senior Unsecured (4 Issues)	BBB+

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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March 2, 2011

Research Update:

PPL Corp. Is Lowered To 'BBB' And Placed On CreditWatch Negative After Acquisition Announcement

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Research Update:

PPL Corp. Is Lowered To 'BBB' And Placed On CreditWatch Negative After Acquisition Announcement

Overview

- We lowered our ratings on diversified energy company PPL Corp. (PPL) and its affiliates PPL Energy Supply (PPL Energy), LG&E and KU Energy LLC (LKE), Louisville Gas & Electric Co. (LG&E), and Kentucky Utilities Co. (KU) to 'BBB' from 'BBB+'.
- We lowered the rating on PPL subsidiary PPL Electric Utilities (PPLEU) to 'BBB' from 'A-'.
- At the same, time we placed all the 'BBB' ratings on CreditWatch with negative implications.
- The short-term ratings on Kentucky Utilities, Louisville Gas & Electric, and PPLEU are 'A-3'.
- The downgrades and CreditWatch listing follow PPL's proposed acquisition of E.ON UK's Central Networks West PLC (CNW) and Central Networks East PLC (CNE).

Rating Action

On March 2, 2011, Standard & Poor's Ratings Services lowered the corporate credit ratings on PPL Corp. (PPL) and its affiliates PPL Energy Supply (PPL Energy), LG&E and KU Energy LLC (LKE), Louisville Gas & Electric Co. (LG&E), and Kentucky Utilities Co. (KU) to 'BBB' from 'BBB+' and placed these ratings on CreditWatch with negative implications. We also lowered the rating on PPL subsidiary PPL Electric Utilities (PPLEU) to 'BBB' from 'A-'. The ratings actions follow PPL's planned acquisition of E.ON UK's Central Networks West PLC (CNW) and Central Networks East PLC (CNE), two distribution networks in the United Kingdom. The CreditWatch listing is directly related to the execution of the financing plan for the acquisition, which includes a commitment by the company for a substantial issuance of equity. Resolution of the CreditWatch will depend on the ability of the company to complete its financing activities consistent with our expectations for the 'BBB' ratings. Allentown, Pa.-based PPL has about $12.7 billion of long-term debt, including $1.63 billion of junior subordinated notes.

The CreditWatch listing will remain until demonstrated progress on the permanent financing plan has been executed in line with our expectations. The acquisition requires large permanent financing that has attendant execution risks, and we will monitor PPL's ability to finalize this permanent financing. We could remove the CreditWatch listing and assign a stable outlook if financing is consistent with our expectation. We could lower the ratings if PPL is unable to fully execute its permanent financing plan in a credit-supportive manner consistent with our expectations for 'BBB' ratings.

Rationale

PPL's purchase price of E.ON UK's Central Networks utilities includes the assumption of $800 million of public debt and cash of $5.6 billion (excluding related transaction expenses and fees) that will be funded through a combination of cash, common equity issuance at PPL, unsecured debt at CNW and CNE, and unsecured debt at an intermediate holding company (generically called UK Holdings) that will own CNW and CNE. In addition, PPL will issue equity units at PPL Capital Funding, which will likely receive high equity credit under our rating criteria. This acquisition will raise PPL's regulated cash flows to approximately 75% from the current level of 60%. Before PPL bought the Kentucky utilities, its regulated cash flows comprised less than 30%. The ratings change reflects our revisions, in accordance with our criteria, of PPL's business risk profile to excellent from strong and the company's financial risk profile to aggressive from significant.

Our revision of the business profile to excellent reflects the addition of fully regulated distribution utilities that have credit-supportive U.K. regulation and no commodity exposure, since power for retail customers is procured by nonaffiliated retail suppliers. The Central Networks utilities are contiguous to PPL's existing U.K. utilities. After the acquisition of CNE and CNW, we expect U.K. operations to be about 30% of PPL's consolidated cash flow. With this transaction, we are viewing all of PPL's utility assets as part of a consolidated entity, whereas previously we considered only the quality of the utility's dividends to its parent. The stability of CNE and CNW along with existing utility assets in the U.K., Kentucky, and Pennsylvania, which we assess as excellent, will more than offset the business risk profile, which we assess as satisfactory, of PPL Energy's merchant generation, resulting in an excellent business profile. We expect the merchant generation business to comprise less than 25% of pro forma consolidated cash flows.

Our revision of the financial risk profile to aggressive reflects in part the company's financial policies toward acquisitions, including funding with aggressive levels of hybrid securities. Furthermore, due to the company's strategy to focus on fully regulated operations and also expand its U.K. presence, we are incorporating consolidated financial measures for PPL in our analysis. When reviewing the financial metrics, we are now including all cash flows and debt obligations from the U.K. utilities and PPLEU in PPL's financial measures. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to range in the aggressive category of our financial risk profile. Debt to EBITDA should range between 4x and 5x, while we expect the percentage of FFO to debt to be in the mid-teens. These measures will support ratings at the 'BBB' level on successful completion of the permanent financing.

Short-term credit factors

Standard & Poor's currently views PPL's liquidity as strong under its corporate liquidity methodology, which categorizes liquidity in five standard descriptors. Our assessment of liquidity as strong supports PPL's 'BBB' issuer credit rating. Projected sources of liquidity--mainly operating cash flow and available bank lines--exceed projected uses--mainly necessary capital expenditures, debt maturities, and common dividends--by more than 1.5x. The ratio of sources over uses would be positive even after a 50% EBITDA decline. Additional factors that support the liquidity are PPL's ability to absorb high-impact, low-probability events with limited need for refinancing, its flexibility to lower capital spending, its sound bank relationships, its solid standing in credit markets, and its generally prudent risk management.

CreditWatch

The CreditWatch listing will remain until demonstrated progress on the permanent financing plan has been executed in line with our expectations. The acquisition requires large permanent financing that has attendant execution risks, and we will monitor PPL's ability to finalize this permanent financing. We could remove the CreditWatch listing and assign a stable outlook if financing is consistent with our expectation. We could lower the ratings if PPL is unable to fully execute its permanent financing plan in a credit-supportive manner consistent with our expectations for 'BBB' ratings.

Related Criteria And Research

- "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009
- "2008 Corporate Criteria: Analytical Methodology," April 15, 2008
- "2008 Corporate Criteria: Ratios And Adjustments," April 15, 2008

Ratings List

Downgraded; CreditWatch Action

	To	From
PPL Corp.		
Corporate Credit Rating	BBB/Watch Neg/--	BBB+/Stable/--
PPL Capital Funding Inc.		
Senior Unsecured	BBB-/Watch Neg	BBB
Junior Subordinated	BB+/Watch Neg	BBB-
PPL Energy Supply LLC		
Corporate Credit Rating	BBB/Watch Neg/--	BBB+/Stable/--
Senior Unsecured	BBB/Watch Neg	BBB+
PPL Electric Utilities Corp.		
Corporate Credit Rating	BBB/Watch Neg/A-3	A-/Stable/A-2

Senior Secured	BBB+/Watch Neg	A-
Recovery Rating	1	1
Preference Stock	BB+/Watch Neg	BBB
Commercial Paper	A-3/Watch Neg	A-2
LG&E and KU Energy LLC		
Corporate Credit Rating	BBB/Watch Neg/--	BBB+/Stable/--
Senior Unsecured	BBB-/Watch Neg	BBB
Louisville Gas & Electric Co.		
Corporate Credit Rating	BBB/Watch Neg/--	BBB+/Stable/--
Senior Secured	A-/Watch Neg	A
Recovery Rating	1+	1+
Kentucky Utilities Co.		
Corporate Credit Rating	BBB/Watch Neg/A-3	BBB+/Stable/A-2
Senior Secured	A-/Watch Neg	A
Recovery Rating	1+	1+

Complete ratings information is available to subscribers of RatingsDirect on the Global Credit Portal at www.globalcreditportal.com. All ratings affected by this rating action can be found on Standard & Poor's public Web site at www.standardandpoors.com. Use the Ratings search box located in the left column.

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March 22, 2011

PPL Corp.

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PPL Corp.

Major Rating Factors

Corporate Credit Rating
BBB/Watch Neg/NR

Strengths:

- Regulated utilities generate steady operating cash flow;
- Low-cost coal and nuclear generation;
- Operating diversity in merchant generation power plants; and,
- Rolling hedging strategy for merchant generation results in stable cash flow.

Weaknesses:

- Materially riskier unregulated operations;
- Acquisitive, with aggressive use of hybrid securities for partial funding;
- Exposure to pending environmental standards, especially regarding carbon dioxide; and
- Cash flow erosion from lower power prices.

Rationale

The ratings on PPL Corp. and affiliates Kentucky Utilities Co. (KU), Louisville Gas & Electric Co. (LG&E), LG&E and KU Energy LLC (LKE), PPL Electric Utilities Corp. (PPLEU), PPL Energy Supply LLC (PPL Energy), Western Power Distribution (South West) PLC, and Western Power Distribution (South Wales) PLC are on CreditWatch with negative implications. Affiliate Western Power Distribution Holdings Ltd. is on CreditWatch with developing implications. The CreditWatch listings followed PPL's planned acquisition of E.ON UK's Central Networks West PLC (CNW) and Central Networks East PLC (CNE), two distribution networks in the U.K. The CreditWatch listing directly relates to the execution of the financing plan for the acquisition, which includes a commitment by the company for a substantial issuance of equity. Resolution of the CreditWatch will depend on the company's ability to complete its financing activities consistent with our expectations for the 'BBB' ratings.

Allentown, Pa.-based PPL has about $13.4 billion of debt, including $1.63 billion of junior subordinated notes.

PPL's purchase price of Central Networks utilities includes the assumption of $800 million of public debt and cash of $5.6 billion (excluding related transaction expenses and fees) that it will fund initially through a bridge loan and ultimately through a combination of cash, common equity issuance at PPL, unsecured debt at CNW and CNE, and unsecured debt at an intermediate holding company (generically UK Holdings) that will own CNW and CNE. In addition, PPL will issue equity units at PPL Capital Funding, which will likely receive high equity credit under our rating criteria. This acquisition will raise PPL's regulated cash flows to about 75% from the current 60%. Before PPL bought the Kentucky utilities, its regulated cash flows were less than 30%. The ratings change reflects our revisions, in accordance with our criteria, of PPL's business risk profile to excellent from strong and the company's financial risk profile to aggressive from significant.

The excellent business profile reflects the addition of fully regulated distribution utilities that have credit-supportive U.K. regulation and no commodity exposure, since power for retail customers is procured by nonaffiliated retail suppliers. The Central Networks utilities are contiguous to PPL's existing U.K. utilities. After the acquisition of CNE and CNW, we expect U.K. operations to be about 30% of PPL's consolidated cash flow. With this transaction, we are viewing all of PPL's utility assets as part of a consolidated entity, whereas previously we considered only the quality of the utility's dividends to its parent. The stability of CNE and CNW, along with existing utility assets in the U.K., Kentucky, and Pennsylvania, which we assess as excellent, will more than offset the satisfactory business risk profile of PPL Energy's merchant generation, resulting in a consolidated business profile of excellent. We expect the merchant generation business to contribute less than 25% of pro forma consolidated cash flows.

Our revision of the financial risk profile to aggressive reflects in part the company's financial policies toward acquisitions, including funding with aggressive levels of hybrid securities. Furthermore, due to the company's strategy of focusing on fully regulated operations and also expanding its U.K. presence, we are incorporating consolidated financial measures for PPL in our analysis. When reviewing the financial metrics, we are now including all cash flows and debt obligations from the U.K. utilities and PPLEU in PPL's financial measures. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to range in the aggressive category of our financial risk profile. Debt to EBITDA should range between 4x and 5x, while we expect the percentage of FFO to debt to be in the mid-teens. These measures will support ratings at the 'BBB' level when the company successfully completes its permanent financing.

Short-term credit factors

Standard & Poor's currently views PPL's liquidity as strong under its corporate liquidity methodology, which categorizes liquidity in five standard descriptors. Our assessment of liquidity as strong supports PPL's 'BBB' issuer credit rating. Projected sources of liquidity--mainly operating cash flow and available bank lines--exceed projected uses--mainly necessary capital expenditures, debt maturities, and common dividends--by more than 1.5x. The ratio of sources over uses would be positive even after a 50% EBITDA decline. Additional factors that support the liquidity are PPL's ability to absorb high-impact, low-probability events with limited need for refinancing, its flexibility to lower capital spending, its sound bank relationships, its solid standing in credit markets, and its generally prudent risk management.

CreditWatch

The CreditWatch listing will remain until the company demonstrates progress on the permanent financing plan in line with our expectations. The acquisition requires large permanent financing that has attendant execution risks, and we will monitor PPL's ability to finalize this permanent financing. We could remove the CreditWatch listing and assign a stable outlook if financing is consistent with our expectation. We could lower the ratings if PPL can't fully execute its permanent financing plan in a credit-supportive manner consistent with our expectations for 'BBB' ratings.

Related Criteria And Research

- 2008 Corporate Criteria: Analytical Methodology
- Criteria Methodology: Business Risk/Financial Risk Matrix Expanded
- 2008 Corporate Criteria: Ratios And Adjustments
- Methodology And Assumptions: Standard & Poor's Standardizes Liquidity Descriptors For Global Corporate Issuers

Table 1

PPL Corp. -- Peer Comparison*

Industry Sector: Energy

	PPL Corp.	FirstEnergy Corp.	Public Service Enterprise Group Inc.	Ameren Corp.
Rating as of March 17, 2011	BBB/Watch Neg/--	BBB-/Stable/--	BBB/Stable/A-2	BBB-/Stable/A-3
	--Average of past three fiscal years--			
(Mil. $)				
Revenues	5,285.6	13,266.0	11,995.5	7,522.3
Net income from cont. oper.	483.9	1,044.0	1,466.6	452.0
Funds from operations (FFO)	1,560.7	2,675.2	2,494.4	1,836.9
Capital expenditures	1,177.4	2,352.5	1,874.5	1,668.3
Cash and short-term investments	721.6	812.7	290.2	419.7
Debt	8,598.5	17,675.4	8,875.7	9,223.1
Preferred stock	333.3	0.0	53.3	88.7
Equity	4,776.7	8,451.0	8,533.8	7,619.0
Debt and equity	13,375.2	26,126.4	17,409.5	16,842.1
Adjusted ratios				
EBIT interest coverage (x)	2.7	2.4	6.2	3.0
FFO int. cov. (X)	4.8	3.2	6.0	4.6
FFO/debt (%)	18.2	15.1	28.1	19.9
Discretionary cash flow/debt (%)	(1.2)	(2.5)	1.0	(2.8)
Net cash flow / capex (%)	86.6	85.2	97.1	85.0
Total debt/debt plus equity (%)	64.3	67.7	51.0	54.8
Return on common equity (%)	12.7	10.9	17.5	5.6
Common dividend payout ratio (un-adj.) (%)	111.4	64.2	46.0	95.0

*Fully adjusted (including postretirement obligations).

Table 2

PPL Corp. -- Financial Summary*

Industry Sector: Energy

	--Fiscal year ended Dec. 31--				
	2010	2009	2008	2007	2006
Rating history	BBB+/Stable/--	BBB/Negative/--	BBB/Stable/--	BBB/Stable/--	BBB/Stable/--
(Mil. $)					
Revenues	8,521.0	3,548.2	3,787.6	2,187.7	2,847.6
Operating income (bef. D&A)	2,565.0	603.6	1,260.4	1,121.9	1,016.3
Operating income (after D&A)	1,944.9	306.2	1,018.2	934.4	795.3
Net income from continuing operations	955.0	30.2	466.3	556.7	436.5
Funds from operations (FFO)	2,686.6	1,274.7	720.8	980.4	913.7
Capital expenditures	1,567.0	704.8	1,260.2	1,034.2	781.9
Free operating cash flow	763.6	1,045.7	(503.3)	(178.1)	242.2
Discretionary cash flow	180.8	511.9	(1,011.0)	(653.8)	(166.8)
Cash and short-term investments	1,088.0	311.3	765.4	317.5	800.6
Debt	15,112.8	5,110.2	5,572.6	3,822.0	3,469.8

Table 2

PPL Corp. -- Financial Summary* (cont.)					
Preferred stock	500.0	250.0	250.0	250.0	0.0
Equity	8,728.0	2,875.4	2,726.6	2,673.9	2,903.0
Debt and equity	23,840.8	7,985.6	8,299.2	6,495.8	6,372.8
Adjusted ratios					
EBIT interest coverage (x)	3.0	1.2	3.5	3.8	3.6
EBIT interest coverage (x)¶	3.0	1.2	1.6	3.8	3.6
EBITDA interest coverage (x)	3.8	2.2	4.4	4.5	4.4
FFO int. cov. (x)	4.8	5.9	3.6	5.0	4.8
FFO/debt (%)	17.8	24.9	12.9	25.7	26.3
Free operating cash flow/debt (%)	5.1	20.5	(9.0)	(4.7)	7.0
Discretionary cash flow/debt (%)	1.2	10.0	(18.1)	(17.1)	(4.8)
Net cash flow / capex (%)	134.3	105.1	16.9	48.8	64.5
Debt/debt and equity (%)	63.4	64.0	67.1	58.8	54.4
Return on common equity (%)	17.0	(0.5)	16.8	19.1	15.8
Common dividend payout ratio (un-adj.) (%)	63.4	1,723.7	105.3	82.5	93.7

*Fully adjusted (including postretirement obligations). ¶Postretirement obligations using actual returns.

Table 3

Reconciliation Of PPL Corp. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)*							
	--Fiscal year ended Dec. 31, 2010--						
PPL Corp. reported amounts							
	Debt	**Shareholders' equity**	**Operating income (before D&A)**	**Operating income (before D&A)**	**Operating income (after D&A)**	**Interest expense**	**Cash flow from operations**
Reported	13,357.0	8,478.0	2,422.0	2,422.0	1,866.0	593.0	2,033.0
Standard & Poor's adjustments							
Operating leases	662.0	--	115.0	50.9	50.9	50.9	64.1
Intermediate hybrids reported as debt	(250.0)	250.0	--	--	--	(16.8)	16.8
Postretirement benefit obligations	1,177.8	--	28.0	28.0	28.0	--	243.8
Accrued interest not included in reported debt	166.0	--	--	--	--	--	--
Capitalized interest	--	--	--	--	--	30.0	(30.0)
Share-based compensation expense	--	--	--	26.0	--	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	--
US decommissioning fund contributions	--	--	--	--	--	--	(14.0)
Other	--	--	--	--	--	--	17.0
Total adjustments	1,755.8	250.0	143.0	104.9	78.9	64.2	297.6

Table 3

Reconciliation Of PPL Corp. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)* (cont.)

Standard & Poor's adjusted amounts

	Debt	Equity	Operating income (before D&A)	EBITDA	EBIT	Interest expense	Cash flow from operations
Adjusted	15,112.8	8,728.0	2,565.0	2,526.9	1,944.9	657.2	2,330.6

*PPL Corp. reported amounts shown are taken from the company's financial statements but might include adjustments made by data providers or reclassifications made by Standard & Poor's analysts. Please note that two reported amounts (operating income before D&A and cash flow from operations) are used to derive more than one Standard & Poor's-adjusted amount (operating income before D&A and EBITDA, and cash flow from operations and funds from operations, respectively). Consequently, the first section in some tables may feature duplicate descriptions and amounts.

Ratings Detail (As Of March 22, 2011)*

PPL Corp.	
Corporate Credit Rating	BBB/Watch Neg/NR
Junior Subordinated (2 Issues)	BB+/Watch Neg
Senior Unsecured (3 Issues)	BBB-/Watch Neg
Corporate Credit Ratings History	
02-Mar-2011	BBB/Watch Neg/NR
27-Oct-2010	BBB+/Stable/NR
28-Apr-2010	BBB/Watch Pos/NR
27-Jan-2009	BBB/Negative/NR
Business Risk Profile	Excellent
Financial Risk Profile	Aggressive
Related Entities	
Kentucky Utilities Co.	
Issuer Credit Rating	BBB/Watch Neg/A-3
Senior Secured (5 Issues)	A-/A-3
Senior Secured (2 Issues)	A-/NR
Senior Secured (3 Issues)	A-/Watch Neg
LG&E and KU Energy LLC	
Issuer Credit Rating	BBB/Watch Neg/--
Senior Unsecured (2 Issues)	BBB-/Watch Neg
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB/Watch Neg/A-3
Senior Secured (11 Issues)	A-/A-3
Senior Secured (1 Issue)	A-/NR
Senior Secured (2 Issues)	A-/Watch Neg
PPL Electric Utilities Corp.	
Issuer Credit Rating	BBB/Watch Neg/A-3
Commercial Paper	
Local Currency	A-3/Watch Neg
Preference Stock (1 Issue)	BB+/Watch Neg
Senior Secured (8 Issues)	BBB+/Watch Neg
PPL Energy Supply LLC	
Issuer Credit Rating	BBB/Watch Neg/NR

Ratings Detail (As Of March 22, 2011)*(cont.)	
Senior Unsecured (12 Issues)	BBB/Watch Neg
PPL Montana LLC	
Senior Secured (1 Issue)	BBB-/Positive
Western Power Distribution Holdings Ltd.	
Issuer Credit Rating	BBB-/Watch Dev/A-3
Senior Unsecured (2 Issues)	BBB-/Watch Neg
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB/Watch Neg/A-3
Senior Unsecured (3 Issues)	BBB/Watch Neg
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB/Watch Neg/A-3
Senior Unsecured (4 Issues)	BBB/Watch Neg

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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April 15, 2011

Research Update:

PPL Corp. And U.K. Affiliates Are Taken Off CreditWatch, Ratings Are Affirmed

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Research Update:

PPL Corp. And U.K. Affiliates Are Taken Off CreditWatch, Ratings Are Affirmed

Overview

- We resolved the CreditWatch with negative implications and affirmed the 'BBB' ratings on diversified energy company PPL Corp. and its affiliates PPL Electric Utilities (PPLEU), PPL Energy Supply (PPL Energy), LG&E and KU Energy LLC (LKE), Louisville Gas & Electric Co. (LG&E), and Kentucky Utilities Co. (KU). The outlook on the ratings is stable.
- At the same time, we resolved the CreditWatch listing and affirmed the 'BBB' ratings on PPL's U.K. affiliates: PPL WW Holdings Ltd. (intermediate holding company formerly known as Western Power Distribution Holdings Ltd.) and PPL WW's distribution network operators (DNOs) Western Power Distribution (South Wales) and Western Power Distribution (South West); and the new intermediate holding company PPL WEM Holdings PLC and its DNOs Western Power Distribution (West Midlands) and Western Power Distribution (East Midlands). The outlook on all the ratings is stable.
- We raised the short-term ratings on KU, LG&E, PPLEU, Western Power Distribution (East Midlands), Western Power Distribution (West Midlands), PPL WEM, PPL WW, Western Power Distribution (South Wales), and Western Power Distribution (South West) to 'A-2' from 'A-3', and we removed the CreditWatch listing.
- The ratings actions and CreditWatch actions come as the result of PPL's recently completed common stock and equity offerings.

Rating Action

On April 15, 2011, Standard & Poor's Ratings Services affirmed its 'BBB' corporate credit ratings on PPL Corp. and its affiliates PPL Electric Utilities (PPLEU), PPL Energy Supply (PPL Energy), LG&E and KU Energy LLC (LKE), Louisville Gas & Electric Co. (LG&E), and Kentucky Utilities Co. (KU). At the same time, we removed the ratings from CreditWatch with negative implications, where we put them on March 2, 2011, following the acquisition announcement. (See "PPL Corp. Is Lowered To 'BBB' And Placed On CreditWatch Negative After Acquisition Announcement," published March 2, 2011.) We also resolved the CreditWatch listings and affirmed the 'BBB' ratings on PPL's U.K. affiliates: PPL WW Holdings Ltd. (intermediate holding company formerly known as Western Power Distribution Holdings Ltd.) and PPL WW's distribution network operators (DNOs) Western Power Distribution (South Wales) and Western Power Distribution (South West); and the new intermediate holding company PPL WEM Holdings PLC and its DNOs Western Power Distribution (West Midlands) and Western Power Distribution (East Midlands). The outlook on all the ratings is stable. We raised the short-term ratings on KU, LG&E, PPLEU, Western Power Distribution (WPD) (East Midlands), WPD (West Midlands), PPL WEM, PPL WW, WPD

(South Wales), and WPD (South West) to 'A-2' from 'A-3'.

Allentown, Pa.-based PPL has about $12.7 billion of long-term debt, including $1.63 billion of junior subordinated notes. Including all junior subordinated notes, we estimate pro forma debt to be roughly $16.6 billion.

The ratings affirmations and removal of the CreditWatch listings follow PPL's recently completed offerings of 92 million shares (after exercise of the overallotment option) of PPL common stock (roughly $2.3 billion of gross proceeds), and 19.55 million (after exercise of the overallotment option) of equity units (roughly $978 million of gross proceeds), to which we assign high equity content.

PPL completed the equity financing as part of the permanent financing plan for the completed acquisition of E.ON U.K.'s Central Networks West PLC and Central Networks East PLC. The CreditWatch listing was directly related to the execution of the financing plan for the acquisition, which included the company's commitment of a substantial issuance of equity. PPL will use proceeds from both issuances to repay a portion of a £3.6 billion 364-day bridge facility that funded the acquisition April 1. The company will repay the remaining balance on the bridge loan with proceeds from future permanent debt issuances as indicated by PPL.

Rationale

For the cash portion of its acquisition of E.ON U.K.'s Central Networks, PPL issued the common stock and equity units and expects to issue unsecured debt at intermediate holding company PPL WEM Holdings PLC and its two new operating subsidiaries, WPD (West Midlands) and WPD (East Midlands). PPL's regulated cash flows should rise to approximately 75% from 60% before it completes the acquisition. Before PPL bought the Kentucky utilities, its regulated cash flows comprised less than 30%. Due to the potential cash flow contribution to the consolidated PPL family from the enlarged U.K. operations, we believe that the U.K. group is now a core part of PPL's strategy. Therefore, we matched the ratings on all these entities with our rating on PPL. We rate PPL WW's senior unsecured debt one notch lower than its long-term rating to reflect structural subordination. We would take the same approach to rating any debt PPL WEM issues. For more information on the rating methodology for the U.K. group, please see "U.K. OpCos WPD West And East Midlands Downgraded To 'BBB/A-3' On New Owner; New HoldCo Rated 'BBB/A-3'; On Watch Neg," published April 12, 2011.

Our assessment of the business profile as excellent reflects the addition of fully regulated distribution utilities that have credit-supportive U.K. regulation and no commodity exposure, since power for retail customers is procured by nonaffiliated retail suppliers. The new DNOs are contiguous to the U.K. utilities PPL's already owns. We expect U.K. operations to be about 30% of PPL's consolidated cash flow. The stability of U.K. cash flows, which are wires-only distribution utilities, along with existing utility assets in Kentucky and Pennsylvania, all of which we assess as excellent, will more than offset the business risk profile of PPL Energy's merchant generation, which we assess as satisfactory, resulting in an excellent business profile overall. We expect the merchant generation business to comprise less than 25% of pro forma consolidated cash flows.

We consider the financial risk profile to be aggressive, which reflects in part the company's financial policies toward acquisitions, including funding with aggressive levels of hybrid securities. The consolidated financial measures include all cash flows and debt obligations from the U.K. utilities and PPLEU in PPL's financial measures. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to range into the aggressive category of our financial risk profile. Debt to EBITDA should range between 4x and 5x, while we expect the percentage of FFO to debt to be in the mid-teens. These measures will support ratings at the 'BBB' level on successful completion of all the permanent financing.

Liquidity

Standard & Poor's currently believes PPL's liquidity is adequate under its corporate liquidity methodology, which categorizes liquidity in five standard descriptors. (See "Standard & Poor's Standardizes Liquidity Descriptors for Global Corporate Issuers," published July 2, 2010.) Our assessment of PPL's liquidity supports our 'BBB' issuer credit rating on the company. Its projected sources of liquidity--mainly operating cash flow and available bank lines--exceed its projected uses--mainly necessary capital expenditures, debt maturities, and common dividends--by about 1.2x over the next 12 to 18 months. We expect net sources to remain positive, even if EBITDA declines more than 15%. Compliance with financial covenants could survive a 15% drop in EBITDA, in our view. Further supporting our liquidity assessment is PPL's ability to absorb high-impact, low-probability events with limited need for refinancing, its flexibility to lower capital spending, its sound bank relationships, its solid standing in credit markets, and its generally prudent risk management.

Outlook

The stable outlook on our ratings on PPL and its all rated subsidiaries reflects our expectation that management will maintain an excellent business profile by focusing on its regulated utilities and will not increase unregulated operations beyond current levels. The outlook also reflects our expectations that cash flow protection and debt leverage measures will be in line for the rating. Specifically, our baseline forecast includes FFO to total debt of around 15%, debt to EBITDA between 4x and 5x, and debt leverage to total capital under 60%, consistent with our expectations for the 'BBB' rating. Given the company's mostly regulated focus, we expect that PPL will avoid any meaningful rise in business risk by reaching constructive regulatory outcomes and limit its unregulated operations to existing levels. We could lower the ratings if PPL cannot sustain consolidated financial measures of FFO to total debt of at least 12%, debt to EBITDA below 5x, and debt leverage under 62%. This could occur if market power prices continue to remain weak due to ongoing depressed demand. Although unlikely over the intermediate term, we could raise ratings if the business profile further strengthens and if financial measures exceed our base line forecast on a consistent basis, including FFO to total debt in excess of 20%, debt to EBITDA below 4x, and debt to total capital around 50%.

Related Criteria And Research

- U.K. OpCos WPD West And East Midlands Downgraded To 'BBB/A-3' On New Owner; New HoldCo Rated 'BBB/A-3'; On Watch Neg, April 12, 2011
- U.K.-Based WPD Operating Cos Downgraded To 'BBB/A-3' And Placed On Watch Neg After Same Action On U.S. Parent PPL, March 3, 2011
- Standard & Poor's Standardizes Liquidity Descriptors for Global Corporate Issuers, July 2, 2010
- Criteria Methodology: Business Risk/Financial Risk Matrix Expanded, May 27, 2009
- Corporate Ratings Criteria 2008: Analytical Methodology, April 15, 2008
- Corporate Ratings Criteria 2008: Ratios And Adjustments, April 15, 2008

Ratings List

Ratings Affirmed; CreditWatch Action; Upgraded

	To	From
PPL Corp.		
PPL Energy Supply LLC		
LG&E and KU Energy LLC		
Corporate Credit Rating	BBB/Stable/--	BBB/Watch Neg/--
Kentucky Utilities Co.		
Western Power Distribution (South West) PLC		
Western Power Distribution (South Wales) PLC		
WPD West Midlands PLC		
WPD East Midlands PLC		
PPL WW Holdings Ltd.		
PPL WEM Holdings PLC		
PPL Electric Utilities Corp.		
Louisville Gas & Electric Co.		
Corporate Credit Rating	BBB/Stable/A-2	BBB/Watch Neg/A-3
Kentucky Utilities Co.		
Senior Secured	A-	A-/Watch Neg
Recovery Rating	1+	
LG&E and KU Energy LLC		
Senior Unsecured	BBB-	BBB-/Watch Neg
Louisville Gas & Electric Co.		
Senior Secured	A-	A-/Watch Neg
Recovery Rating	1+	

PPL Capital Funding Inc.		
Senior Unsecured	BBB-	BBB-/Watch Neg
Junior Subordinated	BB+	BB+/Watch Neg
PPL Electric Utilities Corp.		
Senior Secured	BBB+	BBB+/Watch Neg
Recovery Rating	1	
Preference Stock	BB+	BB+/Watch Neg
PPL Energy Supply LLC		
Senior Unsecured	BBB	BBB/Watch Neg
PPL WEM Holdings PLC		
Senior Unsecured	BBB-	BBB-/Watch Neg
PPL WW Holdings Ltd.		
Senior Unsecured	BBB-	BBB-/Watch Neg
WPD East Midlands PLC		
Senior Unsecured	BBB	BBB/Watch Neg
WPD West Midlands PLC		
Senior Unsecured	BBB	BBB/Watch Neg
Western Power Distribution (South Wales) PLC		
Senior Unsecured	BBB	BBB/Watch Neg
Western Power Distribution (South West) PLC		
Senior Unsecured	BBB	BBB/Watch Neg

Complete ratings information is available to subscribers of RatingsDirect on the Global Credit Portal at www.globalcreditportal.com. All ratings affected by this rating action can be found on Standard & Poor's public Web site at www.standardandpoors.com. Use the Ratings search box located in the left column.

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October 18, 2011

PPL Corp.

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PPL Corp.

Major Rating Factors

Corporate Credit Rating

BBB/Stable/NR

Strengths:

- Steady operating cash flow from regulated utilities;
- Low-cost coal and nuclear generation;
- Operating diversity in merchant generation power plants; and,
- Rolling hedging strategy for merchant generation that stabilizes cash flow.

Weaknesses:

- Unregulated operations that are materially riskier than regulated businesses;
- An acquisitive strategy, with aggressive use of hybrid securities for partial funding;
- Exposure to environmental standards; and
- Cash flow erosion from lower power prices.

Rationale

Standard & Poor's Ratings Services bases its rating on PPL Corp. on its consolidated credit profile, which includes what we consider to be an excellent business risk profile and aggressive financial risk profile. (See "Business Risk/Financial Risk Matrix Expanded," published May 27, 2009, on RatingsDirect on the Global Credit Portal.) In the U.S., PPL Corp. consists of electric transmission and distribution utility PPL Electric Utilities Corp. (PPLEU) and vertically integrated utility subsidiaries Kentucky Utilities Co. (KU) and Louisville Gas & Electric Co. (LG&E). In addition, PPL Corp. owns PPL Energy Supply LLC, an unregulated generation subsidiary that has 10,760 megawatts of capacity consisting of well-located, low-cost nuclear and coal plants that are well hedged through 2012. In the U.K., PPL Corp. owns electric distribution networks Western Power Distribution (South West) PLC, Western Power Distribution (South Wales) PLC, Western Power Distribution (West Midlands) PLC, and Western Power Distribution (East Midlands) PLC. PPL Corp.'s rating reflects a mostly regulated utility strategy that will include continuous capital spending and timely cost recovery through various regulatory mechanisms.

The excellent business risk profile incorporates PPL Corp.'s strategy as a mostly regulated public utility holding company. PPL Corp.'s numerous utilities serve 10 million electric customers in the U.K., Pennsylvania, and Kentucky, and 320,000 natural gas distribution customers in Kentucky. The U.K. wires-only distribution utilities have credit-supportive U.K. regulation and no commodity risk because nonaffiliated retail suppliers procure the electricity for retail customers. We expect these U.K. operations to contribute about 30% of PPL Corp.'s consolidated cash flow. The stability of the U.K. cash flows, along with existing utility assets in Kentucky and Pennsylvania, all of which we assess as excellent, will more than offset the business risk profile of PPL Energy Supply's merchant generation, which we assess as satisfactory, resulting in the excellent business profile overall. We expect the merchant generation business to contribute less than 25% of pro forma consolidated cash flows.

We consider the financial risk profile for PPL Corp. aggressive, reflecting adjusted financial measures that are in line with the rating. We expect that financial measures will remain at current levels as the company incorporates full cost recovery of capital spending in operating cash flow. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to remain in line with the rating.

For the 12 months ended June 30, 2011, FFO to total debt was 16.5%, total debt to total capital was about 58%, and debt to EBITDA was 4.8x. After reducing cash flow from operations by capital spending and dividends, discretionary cash flow was negative $275 million, indicating a need for external funding. In addition, net cash flow (FFO after dividends) to capital spending was 101%. FFO interest coverage was 4.1x, and the company's dividend payout ratio was 50%. The consolidated adjustments for PPL Corp. include pension-related items, intermediate equity treatment of the junior subordinated notes, and high equity treatment of mandatory convertible securities.

Liquidity

We consider PPL Corp.'s liquidity position adequate under Standard & Poor's liquidity methodology. (We categorize liquidity in five standard descriptors. See "Liquidity Descriptors For Global Corporate Issuers," published Sept. 28, 2011.)

We base our liquidity assessment on the following factors and assumptions:

- We expect PPL Corp.'s liquidity sources over the next 12 months, including cash, FFO, and credit facility availability, to exceed uses by about 1.2x. Uses include necessary capital spending, working capital, debt maturities, and shareholder distributions.
- Debt maturities are manageable over the next 12 months.
- We believe liquidity sources would exceed uses by 30% even if there were a 20% decline in FFO.
- In our assessment, PPL Corp. has good relationships with its banks, and has a good standing in the credit markets, having successfully issued debt during the recent credit crisis.

In our analysis of liquidity over the next 12 months, we assume $6.9 billion of liquidity sources, consisting of FFO and credit facility availability. We estimate liquidity uses of $5 billion for capital spending, maturing debt, working capital, and shareholder distributions.

PPL Corp.'s credit agreements include a financial covenant requiring debt to total capitalization no greater than 65% for PPL Energy Supply and 70% for the U.S. utilities. As of June 30, 2011, the company was in compliance with the covenants.

Debt maturities are manageable through 2014, with $500 million in 2011, $0 in 2012, $737 million in 2013, and $300 million in 2014. However, in 2015, $1.3 billion is due. We expect that the company will refinance many of these debt maturities.

Outlook

The stable outlook on PPL Corp. reflects our expectation that management will focus on its fully regulated utilities and will not increase unregulated operations beyond current levels. The outlook also reflects our expectations that cash flow protection and debt leverage measures will be appropriate for the rating. Specifically, our baseline forecast includes FFO to total debt of around 15%, debt to EBITDA between 4x and 5x, and debt leverage to total capital under 60%, consistent with our expectations for the 'BBB' rating. Given the company's mostly regulated focus, we expect that PPL Corp. will avoid any meaningful rise in business risk by reaching constructive regulatory outcomes and limiting its unregulated operations to existing levels. We could lower the ratings if PPL Corp. cannot sustain consolidated financial measures of FFO to total debt of at least 12%, debt to EBITDA below 5x, and debt leverage under 62%. This could occur if market power prices remain weak due to ongoing depressed demand. Although unlikely over the intermediate term, we could raise the ratings if the business profile further strengthens and if financial measures exceed our baseline forecast on a consistent basis, including FFO to total debt in excess of 20%, debt to EBITDA below 4x, and debt to total capital around 50%.

Related Criteria And Research

- Liquidity Descriptors For Global Corporate Issuers, Sept. 28, 2011
- Business Risk/Financial Risk Matrix Expanded, May 27, 2009
- Analytical Methodology, April 15, 2008
- Ratios And Adjustments, April 15, 2008

Table 1

PPL Corp. -- Peer Comparison

Industry Sector: Energy

	PPL Corp.	American Electric Power Co. Inc.	FirstEnergy Corp.	Public Service Enterprise Group Inc.	Ameren Corp.
Rating as of Oct. 18, 2011	BBB/Stable/--	BBB/Stable/A-2	BBB-/Stable/--	BBB/Positive/A-2	BBB-/Stable/A-3
	--Average of the past three fiscal years--				
(Mil. $)					
Revenues	5,285.6	13,871.7	13,266.0	11,995.5	7,522.3
EBITDA	1,441.4	4,190.0	3,992.5	3,653.6	2,194.7
Net income from continuing operations	483.9	1,314.7	1,044.0	1,466.6	452.0
Funds from operations (FFO)	1,566.7	3,256.9	2,675.2	2,494.4	1,836.9
Capital expenditures	1,177.4	3,182.0	2,352.5	1,874.5	1,668.3
Free operating cash flow	441.3	(568.1)	234.0	761.3	156.9
Discretionary cash flow	(106.1)	(1,330.7)	(436.3)	87.6	(261.4)
Cash and short-term investments	721.6	767.0	812.7	290.2	419.7
Debt	8,256.9	20,743.2	17,682.4	8,875.7	9,223.1
Equity	5,118.3	12,672.8	8,451.0	8,533.8	7,619.0
Adjusted ratios					
EBITDA margin (%)	27.3	30.2	30.1	30.5	29.2
EBITDA interest coverage (x)	3.9	3.6	3.7	7.6	4.4
EBIT interest coverage (x)	2.9	2.5	2.4	6.2	3.0
Return on capital (%)	9.4	7.7	9.1	15.0	7.9
FFO/debt (%)	19.0	15.7	15.1	28.1	19.9
Free operating cash flow/debt (%)	5.3	(2.7)	1.3	8.6	1.7
Debt/EBITDA (x)	5.7	5.0	4.4	2.4	4.2
Total debt/debt plus equity (%)	61.7	62.1	67.7	51.0	54.8

Table 2

PPL Corp. -- Financial Summary

Industry Sector: Energy

	--Fiscal year ended Dec. 31--				
	2010	**2009**	**2008**	**2007**	**2006**
Rating history	BBB+/Stable/--	BBB/Negative/--	BBB/Stable/--	BBB/Stable/--	BBB/Stable/--
(Mil. $)					
Revenues	8,521.0	3,548.2	3,787.6	2,187.7	2,847.6
EBITDA	2,526.9	555.3	1,242.0	1,123.2	1,010.5
Operating income	1,944.9	306.2	1,018.2	934.4	795.3
Net income from continuing operations	955.0	30.2	466.3	556.7	436.5
Funds from operations (FFO)	2,704.7	1,274.7	720.8	980.4	913.7
Capital expenditures	1,567.0	704.8	1,260.2	1,034.2	781.9
Free operating cash flow	781.7	1,045.7	(503.3)	(178.1)	242.2
Dividends paid	600.8	533.8	507.8	475.8	409.0
Discretionary cash flow	180.8	511.9	(1,011.0)	(653.8)	(166.8)
Debt	14,087.8	5,110.2	5,572.6	3,822.0	3,469.8
Preferred stock	1,525.0	250.0	250.0	250.0	0.0
Equity	9,753.0	2,875.4	2,726.6	2,673.9	2,903.0
Debt and equity	23,840.8	7,985.6	8,299.2	6,495.8	6,372.8
Adjusted ratios					
EBITDA margin (%)	29.7	15.7	32.8	51.3	35.5
EBIT interest coverage (x)	3.5	1.2	3.5	3.8	3.6
FFO interest coverage (x)	5.7	6.0	3.7	5.1	4.8
FFO/debt (%)	19.2	24.9	12.9	25.7	26.3
Discretionary cash flow/debt (%)	1.3	10.0	(18.1)	(17.1)	(4.8)
Net cash flow/capital expenditures (%)	134.3	105.1	16.9	48.8	64.5
Debt/EBITDA (x)	5.6	9.2	4.5	3.4	3.4
Debt/debt and equity (%)	59.1	64.0	67.1	58.8	54.4
Return on capital (%)	11.0	3.4	12.5	12.5	10.7
Return on common equity (%)	17.0	(0.5)	16.8	19.1	15.8
Common dividend payout ratio (unadjusted) (%)	63.4	1,723.7	105.3	82.5	93.7

Table 3

Reconciliation Of PPL Corp. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $)

	--Fiscal year ended Dec. 31, 2010--									
PPL Corp. reported amounts										
	Debt	**Shareholders' equity**	**Revenues**	**EBITDA**	**Operating income**	**Interest expense**	**Cash flow from operations**	**Cash flow from operations**	**Dividends paid**	**Capital expenditures**
Reported	13,357.0	8,478.0	8,521.0	2,422.0	1,866.0	513.0	2,033.0	2,033.0	566.0	1,597.0
Standard & Poor's adjustments										
Operating leases	662.0	--	--	50.9	50.9	50.9	64.1	64.1	--	--
Equity-like hybrids	(1,150.0)	1,150.0	--	--	--	(26.6)	26.6	26.6	26.6	--

Table 3

Reconciliation Of PPL Corp. Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. $) (cont.)

Intermediate hybrids reported as debt	(250.0)	250.0	--	--	--	(16.8)	16.8	16.8	16.8	--
Intermediate hybrids reported as equity	125.0	(125.0)	--	--	--	8.5	(8.5)	(8.5)	(8.5)	--
Postretirement benefit obligations	1,177.8	--	--	28.0	28.0	--	243.8	243.8	--	--
Capitalized interest	--	--	--	--	--	30.0	(30.0)	(30.0)	--	(30.0)
Share-based compensation expense	--	--	--	26.0	--	--	--	--	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	--	356.0	--	--
U.S. decommissioning fund contributions	--	--	--	--	--	--	(14.0)	(14.0)	--	--
Debt -- accrued interest not included in reported debt	166.0	--	--	--	--	--	--	--	--	--
Funds from operations -- other	--	--	--	--	--	--	17.0	17.0	--	--
Total adjustments	730.8	1,275.0	--	104.9	78.9	46.1	315.7	671.7	34.8	(30.0)

Standard & Poor's adjusted amounts

	Debt	Equity	Revenues	EBITDA	EBIT	Interest expense	Cash flow from operations	Funds from operations	Dividends paid	Capital expenditures
Adjusted	14,087.8	9,753.0	8,521.0	2,526.9	1,944.9	559.1	2,348.7	2,704.7	600.8	1,567.0

Ratings Detail (As Of October 18, 2011)

PPL Corp.	
Corporate Credit Rating	BBB/Stable/NR
Junior Subordinated (3 Issues)	BB+
Senior Unsecured (1 Issue)	BBB-
Corporate Credit Ratings History	
15-Apr-2011	BBB/Stable/NR
02-Mar-2011	BBB/Watch Neg/NR
27-Oct-2010	BBB+/Stable/NR
28-Apr-2010	BBB/Watch Pos/NR
27-Jan-2009	BBB/Negative/NR
Business Risk Profile	Excellent
Financial Risk Profile	Aggressive

Ratings Detail (As Of October 18, 2011) (cont.)	
Related Entities	
Kentucky Utilities Co.	
Issuer Credit Rating	BBB/Stable/A-2
Senior Secured (3 Issues)	A-
Senior Secured (5 Issues)	A-/A-2
Senior Secured (2 Issues)	A-/NR
LG&E and KU Energy LLC	
Issuer Credit Rating	BBB/Stable/--
Senior Unsecured (3 Issues)	BBB-
Louisville Gas & Electric Co.	
Issuer Credit Rating	BBB/Stable/A-2
Senior Secured (2 Issues)	A-
Senior Secured (11 Issues)	A-/A-2
Senior Secured (1 Issue)	A-/NR
PPL Electric Utilities Corp.	
Issuer Credit Rating	BBB/Stable/A-2
Commercial Paper	
Local Currency	A-2
Preference Stock (1 Issue)	BB+
Senior Secured (9 Issues)	A-
PPL Energy Supply LLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (13 Issues)	BBB
PPL Montana LLC	
Senior Secured (1 Issue)	BBB-/Positive
PPL WEM Holdings PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (1 Issue)	BBB-
PPL WW Holdings Ltd.	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (2 Issues)	BBB-
Western Power Distribution (East Midlands) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (4 Issues)	BBB
Western Power Distribution (South Wales) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (3 Issues)	BBB
Western Power Distribution (South West) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (4 Issues)	BBB
Western Power Distribution (West Midlands) PLC	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured (3 Issues)	BBB

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard

Ratings Detail (As Of October 18, 2011) (cont.)

& Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

Summary:
PPL Corp.

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Summary:
PPL Corp.

Credit Rating: BBB/Stable/NR

Rationale

Standard & Poor's Ratings Services bases its rating on PPL Corp. on its consolidated credit profile, which includes what we consider to be an "excellent" business risk profile and "aggressive" financial risk profile under our criteria. In the U.S., PPL Corp. consists of electric transmission and distribution utility PPL Electric Utilities Corp. (PPLEU) and vertically integrated utility subsidiaries Kentucky Utilities Co. (KU) and Louisville Gas & Electric Co. (LG&E). In addition, PPL Corp. owns PPL Energy Supply LLC, an unregulated generation subsidiary that has 10,760 megawatts of capacity consisting of well-located, low-cost nuclear and coal plants that are well hedged through 2013. In the U.K., PPL Corp. owns electric distribution networks Western Power Distribution (South West) PLC, Western Power Distribution (South Wales) PLC, Western Power Distribution (West Midlands) PLC, and Western Power Distribution (East Midlands) PLC. Our rating on PPL Corp. reflects a mostly regulated utility strategy that will include continuous capital spending and timely cost recovery through various regulatory mechanisms.

The excellent business risk profile incorporates PPL Corp.'s strategy as a mostly regulated public utility holding company. PPL Corp.'s numerous utilities serve 10 million electric customers in the U.K., Pennsylvania, and Kentucky, and 320,000 natural gas distribution customers in Kentucky. The U.K. wires-only distribution utilities have credit-supportive U.K. regulation and no commodity risk because nonaffiliated retail suppliers procure the electricity for retail customers. We expect these U.K. operations to contribute about 30% of PPL Corp.'s consolidated cash flow. The stability of the U.K. cash flows, along with existing utility assets in Kentucky and Pennsylvania, all of which we assess as excellent, will more than offset the business risk profile of PPL Energy Supply's merchant generation, which we assess as satisfactory, resulting in the excellent business profile overall. We expect the merchant generation business to contribute less than 25% of pro forma consolidated cash flows.

We consider the financial risk profile for PPL Corp. aggressive, reflecting adjusted financial measures that are in line with the rating. We expect that financial measures will remain at current levels as the company incorporates full cost recovery of capital spending in operating cash flow. We expect consolidated financial measures, including ratios of debt to EBITDA, funds from operations (FFO) to total debt, and debt to capital, to remain in line with the rating. For the 12 months ended Dec. 31, 2011, FFO to total debt was about 16%, total debt to total capital was about 58%, and debt to EBITDA was 4.3x. After reducing cash flow from operations by capital spending and dividends, discretionary cash flow was negative $279 million, indicating a need for external funding. In addition, net cash flow (FFO after dividends) to capital spending was 86%, further indicating a need for external funding. FFO interest coverage was 4.0x, and the company's dividend payout ratio was 52%. The consolidated adjustments for PPL Corp. include pension-related items, intermediate equity treatment of the junior subordinated notes, and high equity treatment of mandatory convertible securities.

Liquidity

We consider PPL Corp.'s liquidity position "adequate" under Standard & Poor's liquidity methodology.

We base our liquidity assessment on the following factors and assumptions:

- We expect PPL Corp.'s liquidity sources over the next 12 months, including cash, FFO, and credit facility availability, to exceed uses by about 1.2x. Uses include necessary capital spending, working capital, debt maturities, and shareholder distributions.
- Debt maturities are manageable over the next 12 months.
- We believe liquidity sources would exceed uses by 30% even if there were a 15% to 20% decline in FFO.
- In our assessment, PPL Corp. has good relationships with its banks, and has a good standing in the credit markets, having successfully issued debt during the recent credit crisis.

In our analysis of liquidity over the next 12 months, we assume $8 billion of liquidity sources, consisting of FFO and credit facility availability. We estimate liquidity uses of $5 billion for capital spending, maturing debt, working capital, and shareholder distributions.

PPL Corp.'s credit agreements include a financial covenant requiring debt to total capitalization no greater than 65% for PPL Energy Supply and 70% for the U.S. utilities. As of Dec. 31, 2011, the company was in compliance with the covenants.

Debt maturities are manageable through 2014, with $0 in 2012, $737 million in 2013, and $300 million in 2014. However, in 2015, $1.3 billion is due, and in 2016 $810 million is due. We expect that the company will refinance many of these debt maturities.

Outlook

The stable rating outlook on PPL Corp. reflects our expectation that management will focus on its fully regulated utilities and will not increase unregulated operations beyond current levels. The outlook also reflects our expectations that cash flow protection and debt leverage measures will be appropriate for the rating. Specifically, our baseline forecast includes FFO to total debt of around 15%, debt to EBITDA between 4x and 5x, and debt leverage to total capital under 60%, consistent with our expectations for the 'BBB' rating. Given the company's mostly regulated focus, we expect that PPL Corp. will avoid any meaningful rise in business risk by reaching constructive regulatory outcomes and limiting its unregulated operations to existing levels. We could lower the ratings if PPL Corp. cannot sustain consolidated financial measures of FFO to total debt of at least 12%, debt to EBITDA below 5x, and debt leverage under 62%. This could occur if market power prices remain weak due to ongoing depressed demand. Although unlikely over the intermediate term, we could raise the ratings if the business profile further strengthens and if financial measures exceed our baseline forecast on a consistent basis, including FFO to total debt in excess of 20%, debt to EBITDA below 4x, and debt to total capital around 50%.

Related Criteria And Research

- Liquidity Descriptors For Global Corporate Issuers, Sept. 28, 2011
- Business Risk/Financial Risk Matrix Expanded, May 27, 2009
- Analytical Methodology, April 15, 2008
- Ratios And Adjustments, April 15, 2008

MOODY'S
INVESTORS SERVICE

Rating Action: Moody's changes outlook for PPL and PPL Electric to negative

Global Credit Research - 11 May 2009

Approximately $2.5 billion of securities affected

New York, May 11, 2009 -- Moody's Investors Service revised the outlook of PPL Electric Utilities Corporation (PPL Electric: Baa1 senior unsecured), its parent PPL Corporation (PPL: Baa2 Issuer Rating) and its affiliate PPL Capital Funding, Inc. (PPL Capital: Baa2 senior unsecured guaranteed by PPL Corp) to negative from stable. The ratings of PPL Corp's subsidiary PPL Energy Supply, LLC (PPL Supply: Baa2 senior unsecured) are affirmed and the outlook remains stable.

The negative outlook for PPL Electric reflects our expectation that beyond 2009, as PPL Electric implements market rates for generation, and begins to incur significant capital expenditures in support of its distribution and transmission infrastructure, its financial metrics will deteriorate significantly and will remain below levels demonstrated by electric utilities with senior unsecured ratings of Baa1 for the foreseeable future. The negative outlook also considers the potential for additional pressure on cash flows if measures to avoid rate shock are taken that result in significant deferrals of purchased power costs or if regulatory support for capital investment is reduced or delayed.

Although PPL Electric has been operating under a capped generation rate as it transitions to market rates in 2010, its cash flows have remained robust as the company has been meeting its entire Pennsylvania provider of last resort (POLR) obligation via fixed price power purchase agreements with its affiliate, PPL Supply. In addition, through 2009, cash flows from operations have been enhanced by the receipt of competition charge revenues, which will end in 2009. Going forward, retail rates for generation are intended to be a direct pass through of power costs with no additional margin for the utility. At the same time, capital spending is expected to increase significantly while debt levels are initially maintained but ultimately increase as well. Although PPL EU's ratio of cash flow from operations excluding the impact of working capital changes (CFO pre-W/C) to adjusted debt (Debt), calculated in accordance with Moody's standard analytical adjustment is currently in the range of 30%, beyond 2009, we anticipate this metric will move into the mid-teens and remain there on a sustainable basis. These credit metrics are considered to be more consistent with a senior unsecured rating in the middle of the Baa rating category.

The Baa2 rating and stable outlook for PPL Supply recognizes that the company is in transition as its primary Pennsylvania market moves toward the full implementation of electric retail competition and the use of market rates for generation. For PPL Supply this will begin in 2010. Historically, PPL Supply's cash flows have been relatively stable as the majority of the company's production has been dedicated to supply its utility affiliate at fixed prices. As a result, its credit metrics have remained within the ranges appropriate for electric utilities rated in the mid-to-high Baa range. Beyond 2009, we anticipate increased volatility of cash flows, mitigated to some extent by PPL Supply's hedging strategy; however, we also anticipate a strengthening of its cash flow credit metrics commensurate with the company's increased business risk. PPL Supply's credit metrics will also continue to be impacted by the ownership of its U.K. distribution utilities, which benefit from reasonably stable cash flow, but also employ leverage commensurate with their regulated network activities.

The negative outlook for PPL Corp and PPL Capital recognizes the increasing proportion of corporate earnings and cash flow that is anticipated to be generated by PPL Supply and considers the structurally subordinate position of the unsecured lenders at these entities relative to the unsecured debt at the subsidiary levels. In addition, a downgrade of PPL EU to Baa2 would result in all of PPL Corp's direct material cash flow being generated by subsidiaries having senior unsecured ratings of Baa2. Under this scenario, notching for structural subordination would result in a senior unsecured/Issuer Rating of Baa3 at PPL Capital/PPL Corp.

The principal methodology used in rating PPL EU and PPL Corp was Rating Methodology: Global Regulated Electric Utilities. It can be found at www.moodys.com in the Credit Policy & Methodologies directory, in the Ratings Methodology subdirectory. Other methodologies and factors that may have been considered in the process of rating this issuer can also be found in the Credit Policy & Methodologies directory.

PPL Supply's ratings were assigned by evaluating factors believed to be relevant to the credit profile, such as i) the business risk and competitive position of PPL Supply versus others within its industry or sector, ii) the capital structure and financial risk of PPL Supply, iii) the projected performance of PPL Supply over the near to intermediate term, and iv) PPL Supply's history of achieving consistent operating performance and meeting financial plan goals. These attributes were compared against other issuers both within and outside of PPL Supply's core peer group and PPL Supply's ratings are believed to be comparable to ratings assigned to other issuers of similar credit risk.

Moody's last rating action on PPL EU, PPL Corp, and PPL Capital occurred March 31, 2006 when PPL EU's senior unsecured debt was upgraded to Baa1 from Baa2, PPL Capital's senior unsecured debt was upgraded to Baa2 from Baa3, and a Baa2 Issuer Rating was assigned to PPL Corp.

Moody's last rating action on PPL Supply occurred November 23, 2004 when a rating of Prime-2 was assigned to its commercial paper program. This rating was withdrawn February 3, 2009 for business reasons.

PPL Corporation is a diversified energy holding company headquartered in Allentown, Pennsylvania. PPL Electric Utilities Corporation is a regulated transmission and distribution utility; PPL Energy Supply, LLC is a holding company engaged primarily in non-regulated generation and marketing of power in the U.S. and the regulated delivery of electricity in the U.K., it is also a subsidiary of PPL Corporation.

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MOODY'S
INVESTORS SERVICE

Rating Action: Moody's downgrades PPL and PPL Electric, outlook stable

Global Credit Research - 28 Apr 2010

Approximately $1.3 billion of rated instruments affected

New York, April 28, 2010 -- Moody's Investors Service (Moody's) downgraded the long-term unsecured ratings of PPL Corporation (PPL: Issuer Rating to Baa3 from Baa2), and its subsidiaries PPL Electric Utilities Corporation (PPL EU: senior unsecured to Baa2 from Baa1), and PPL Capital Funding, Inc. (PPL Capital: senior unsecured guaranteed by PPL to Baa3 from Baa2); the A3 rating for PPL EU's secured debt, and its Prime-2 rating for commercial paper are affirmed. The outlook for PPL, PPL EU, and PPL Capital is stable. The ratings of PPL's subsidiary PPL Energy Supply (PPL Supply: Baa2 senior unsecured) are affirmed and the outlook remains stable.

The rating actions follow PPL's announced agreement to acquire E.ON U.S. LLC (E.ON U.S.) and its subsidiaries Louisville Gas & Electric Company (LG&E) and Kentucky Utilities Company (KU), and while reflective of the announced transaction, are driven more by weakening financial metrics and the negative outlooks that had been in place for PPL EU and PPL for the past year.

On April 28, 2010, PPL announced that it had reached a definitive agreement with E.ON AG to acquire E.ON U.S, the parent company of LG&E and KU, two regulated utilities with operations principally in Kentucky. The transaction values E.ON U.S. at approximately $7.6 billion, including the assumption of $925 million of existing tax-exempt debt and the repayment of E.ON AG intercompany debt. Permanent financing for the transaction will include a combination of common equity, utility first mortgage bonds, utility holding company bonds, hybrid securities and cash on hand. We anticipate that PPL will arrange the permanent financing in a balanced manner that will be supportive of its Baa3 Issuer Rating.

PPL's Baa3 Issuer Rating considers the additional regulatory scale, diversity and cash flow stability that are likely to result from its planned acquisition of E.ON US. On a pro-forma basis, we anticipate that over 50% of PPL's assets and cash flows would be associated with regulated operations; absent the transaction, we would expect regulated contributions to remain significantly below 50%. The rating also considers the challenges the company is facing as it transitions to a fully competitive market in its Pennsylvania service territory where significant utility investment is needed while its wholesale generation business continues to operate within weakened commodities markets. The rating reflects pro-forma consolidated credit profile and cash flow credit metrics that we anticipate will remain within ranges appropriate for the rating. The Baa3 ratings for PPL and PPL Capital also recognize their structurally subordinate position relative to the Baa2 senior unsecured debt of PPL Supply and PPL EU, and to likely holding company and operating company debt at the Kentucky utilities.

The downgrade for PPL EU reflects our continued expectation that beginning in 2010, the company's cash flow credit metrics will decline dramatically from their recent levels and will remain toward the lower end of the ranges indicated in Moody's August 2009 Rating Methodology for Regulated Electric and Gas Utilities (the Regulated Methodology) rated Baa for the foreseeable future. The expected decline in metrics comes as PPL EU implements market rates for generation while simultaneously incurring increased expenditures for capital investment to support and maintain the reliability of its aging distribution and transmission systems. As a result, PPL EU's debt burden will increase, and cash flow coverage of debt and debt service is expected to be dramatically reduced. For example, for the foreseeable future, the ratio of cash flow from operations excluding changes in working capital (CFO Pre -- WC) to debt, calculated in accordance with Moody's standard analytical adjustments, is expected to remain in the low-to-mid teens, and the ratio of CFO Pre -- WC plus interest to interest is anticipated to remain around three times.

The affirmation of the A3 rating for the senior secured debt at PPL EU reflects its priority position within PPL EU's capital structure and follows Moody's August 2009 implementation of wider notching between the vast majority of ratings for senior secured and senior unsecured debt ratings for investment grade regulated utilities. Issuers with negative outlooks were excluded from the August implementation.

The affirmation of the Baa2 senior unsecured ratings for PPL Supply considers the relatively strong market and competitive position that results from its significant base-load generation portfolio located primarily near load serving entities within the highly liquid and transparent PJM market. The affirmation also recognizes that 2010 is the first year the company is able to sell power produced by its Pennsylvania generation resources at market rates. For 2010 and beyond, we anticipate increased volatility of cash flows, mitigated to some extent by PPL Supply's hedging strategy; however, we also anticipate a strengthening of its cash flow credit metrics commensurate with the company's increased business risk. For example, we anticipate the ratio of CFO Pre-WC to debt (excluding the debt and cash flows associated with its U.K. distribution utilities) to remain above 25%. PPL Supply's published consolidated credit metrics will continue to be impacted by the ownership of its U.K. distribution utilities, which benefit from reasonably stable cash flow, but also employ leverage commensurate with their regulated network activities. We anticipate PPL Supply's consolidated published ratio of CFO Pre-WC to debt will remain above 20%.

The stable outlook for PPL EU reflects our expectation that PPL EU's financial metrics will generally remain within the ranges indicated for electric distribution and transmission utilities rated Baa. The outlook also assumes that PPL EU will finance its significant capital expenditure program in a manner that is consistent with maintaining its current credit profile and that it will continue to successfully manage its regulatory relationships as Pennsylvania continues its statewide transition to market rates.

The stable outlooks for PPL Supply, PPL Capital, and PPL reflect our view that the planned acquisition of E.ON U.S. will be financed in a balanced manner that is consistent with PPL's Baa3 Issuer rating. The stable outlooks also assume that in 2010 and beyond, PPL Supply's low-cost, strategically placed, primarily base load generating assets will generate increased cash flows, and that PPL will continue to seek to mitigate the volatility of these market based cash flow by use of disciplined hedging strategies. In addition, the stable outlooks assume that the transition to the competitive electricity market in Pennsylvania will continue to proceed relatively smoothly and that PPL EU's planned capital expenditures will be financed in a manner that is supportive of its credit quality.

The principal methodology used in rating PPL EU, PPL and PPL Capital was Rating Methodology: Regulated Electric and Gas Utilities, published August 2009 and available on www.moodys.com in the Rating Methodologies sub-directory under the Research and Ratings tab. The principal methodology used in rating PPL Supply was Rating Methodology: Unregulated Utilities and Power Companies, published in August 2009 and also available on www.moodys.com in the Rating Methodologies sub-directory under the Research & Ratings tab. Other methodologies and factors that may have been considered in the process of rating these issuers can also be found in the Rating Methodologies sub-directory on Moody's website.

Moody's last rating action on PPL EU, PPL, PPL Capital and PPL Supply occurred May 11, 2009 the outlooks of PPL EU, PPL and PPL Capital were revised to negative from stable and the ratings of PPL Supply were affirmed with a stable outlook.

PPL is a diversified energy holding company headquartered in Allentown, Pennsylvania. PPL EU is a regulated transmission and distribution utility; PPL Supply is a holding company engaged primarily in non-regulated generation and marketing of power in the U.S. and the regulated delivery of electricity in the U.K.; PPL Capital is a financing subsidiary of PPL - its debt is guaranteed by PPL.

Downgrades:

PPL Corporation

Issuer Rating, Downgraded to Baa3 from Baa2

PPL Capital Funding, Inc.

Junior Subordinated Regular Bond/Debenture, Downgraded to Ba1 from Baa3

Multiple Seniority Shelf, Downgraded to (P)Baa3, (P)Ba1 from (P)Baa2, (P)Baa3

Senior Unsecured Regular Bond/Debenture, Downgraded to Baa3 from Baa2

PPL Electric Utilities Corporation

Issuer Rating, Downgraded to Baa2 from Baa1

Multiple Seniority Shelf, Downgraded to (P)Ba1 from (P)Baa3

Preferred Stock, Downgraded to Ba1 from Baa3

Senior Unsecured Bank Credit Facility, Downgraded to Baa2 from Baa1

Senior Unsecured Revenue Bonds (Lehigh County Industrial Development Authority), Downgraded to Baa2 from Baa1

Outlook Actions:

PPL Corporation

Outlook, Changed To Stable From Negative

PPL Capital Funding, Inc.

Outlook, Changed To Stable From Negative

PPL Electric Utilities Corporation

Outlook, Changed To Stable From Negative

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Moody's
INVESTORS SERVICE

Announcement: Moody's affirms PPL ratings

Global Credit Research - 27 Oct 2010

Approximately $1.7 billion of securities affected

New York, October 27, 2010 -- Moody's Investors Service affirmed the ratings of PPL Corporation (PPL: Baa3 Issuer Rating) and its subsidiary, PPL Capital Funding (PPL Funding: Baa3 senior unsecured (debt guaranteed by PPL)). The outlook for PPL and PPL Funding is stable.

The rating affirmations follow PPL's receipt of Federal Energy Regulatory Commission (FERC) approval of its pending acquisition of E.ON U.S. LLC (Baa2 Issuer Rating) and its subsidiaries, Kentucky Utilities (KU: Baa1 Issuer Rating) and Louisville Electric & Gas (LGE: Baa1 Issuer Rating). PPL also received approval from the Kentucky Public Service Commission, the State Corporation Commission of Virginia and the Tennessee Regulatory Authority. With the receipt of this last regulatory approval from the FERC, we believe there is a very high probability the transaction will close imminently.

The affirmation of PPL's Baa3 Issuer Rating considers the additional regulatory scale, diversity and cash flow stability that will result from its acquisition of E.ON US (to be renamed LG&E and KU Energy LLC (LKE)). Going forward, we anticipate that over 50% of PPL's assets and cash flows will be associated with regulated operations, with about half of those coming from the LKE subsidiaries. The rating considers the challenges the company continues to face as it manages the transition to a fully competitive market in its Pennsylvania service territory while its wholesale generation business continues to operate within weakened commodities markets; however, the rating recognizes the overall risk reduction and stability that comes as a result of its increased regulatory exposure. The Baa3 rating reflects the supportive regulatory relationships that exist at the LKE entities, and assumes these relationships will be maintained under PPL ownership.

PPL's Baa3 Issuer Rating is driven by consolidated credit metrics that are expected to remain within the Baa ranges identified in Moody's August 2009 Rating Methodology for Regulated Electric and Gas Utilities, for example, the consolidated ratio of cash flow excluding changes in working capital (CFO pre-WC) to debt, calculated in accordance with Moody's standard analytical adjustments, is expected to remain in the mid-teens. The ratings for the debt instruments of PPL Funding are based on the guarantees provided by PPL. The Baa3 Issuer/senior unsecured ratings for PPL and PPL Funding also consider their structurally subordinate position relative to the Baa2 or better senior unsecured debt rating assigned to several of PPL's primary operating subsidiaries.

The rating affirmations consider PPL's balanced plan for financing the approximately $6.8 billion necessary to complete the acquisition of LKE. In June 2010, PPL completed the sale of 103.5 million shares of common stock and issued approximately $1.15 billion of hybrid -- equity linked - securities, generating total proceeds of approximately $3.5 billion in permanent capital. Also in June PPL obtained a $6.5 billion bridge loan that could be drawn, if necessary, to complete the transaction. We understand PPL now intends to draw temporarily on PPL Energy Supply's new $4 billion revolving credit facility to obtain approximately $3 billion of additional external financing to close the transaction. It is our understanding that shortly after the purchase is complete, PPL will issue a similar amount of permanent debt financing at a combination of KU, LGE and LKE, proceeds of which will be used to repay the PPL Energy Supply credit facility.

The rating outlook for PPL and PPL Funding is stable, an indication that ratings are not likely to be revised in the near term. Longer term, ratings could be revised upward if there were to be a sustained improvement in financial metrics; as demonstrated, for example, by a consolidated ratio of CFO pre-WC to debt, calculated in accordance with Moody's standard analytical adjustments, in the range of 20%.

The ratings of PPL or PPL Funding could be adjusted downward if there is a meaningful increase in business risk, if there is a significant prolonged deterioration of plant availability, if the company is unsuccessful in managing the full transition to a competitive market, if its planned capital expenditures are funded in a manner inconsistent with maintaining credit metrics that are appropriate for its current rating levels in light of current market conditions, or if there were to be adverse regulatory rulings such that financial metrics deteriorate; as demonstrated, for example, by a PPL consolidated ratio of CFO pre-WC to debt, calculated in accordance with Moody's standard analytical adjustments, in the low teens. In the event PPL is unable to obtain the remaining permanent financing for the transaction, there could be downward pressure on the ratings.

The principal methodology used in rating PPL and PPL Funding was Regulated Electric and Gas Utilities rating methodology published in August 2009. Other methodologies and factors that may have been considered in the process of rating this issuer can also be found on Moody's website.

Please see ratings tab on the issuer/entity page on Moodys.com for the last rating action and the rating history.

PPL is a diversified energy holding company headquartered in Allentown, Pennsylvania. PPL's Pennsylvania regulated transmission and distribution operations are conducted through its subsidiary, PPL Electric Utilities; PPL Energy Supply is a holding company engaged primarily in non-regulated generation and marketing of power in the U.S. and the regulated delivery of electricity in the U.K.; PPL funding is a financing subsidiary of PPL - its debt is guaranteed by PPL.

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CREDIT ANALYSIS

PPL Corporation

Allentown, Pennsylvania, United States

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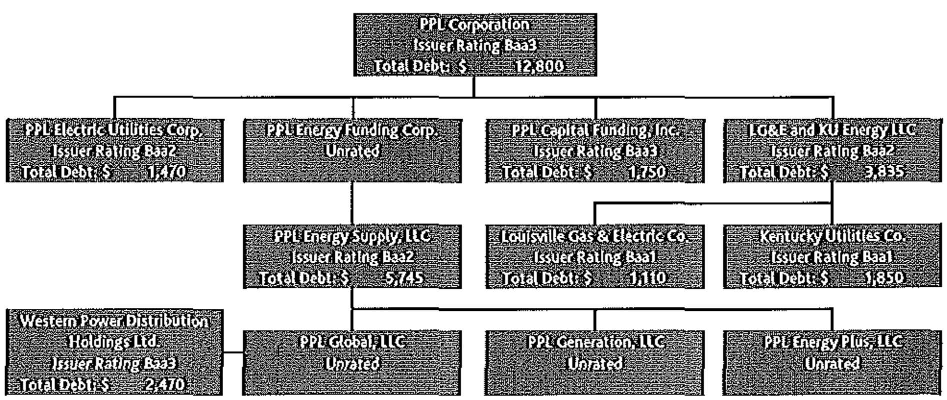
Business Profile

PPL Corporation (PPL: Baa3 Issuer Rating, stable) is a diversified energy holding company headquartered in Allentown, Pennsylvania. PPL conducts its regulated businesses in Pennsylvania through its utility subsidiary PPL Electric Utilities Corporation (PPL EU: Baa2 senior unsecured, stable). PPL's other primary subsidiaries are PPL Energy Supply LLC (PPL Supply: Baa2 senior unsecured, stable) and LG&E and KU Energy LLC (LKE: Baa2 senior unsecured, stable).

PPL Supply is an intermediate holding company engaged in the generation and marketing of power primarily in the northeastern and western power markets of the U.S., and in the regulated delivery of electricity in the U.K. through Western Power Distribution Holdings Ltd. (WPD: Baa3 Issuer Rating, stable outlook).

LKE became a PPL subsidiary November 1, 2010, when PPL acquired E.ON U.S. LLC (since renamed LKE) and its regulated utility subsidiaries Kentucky Utilities Company (KU: Baa1 senior unsecured, stable) and Louisville Gas & Electric (LG&E: Baa1 senior unsecured, stable). KU and LG&E operate primarily in Kentucky, while KU has significantly smaller operations in Virginia and Tennessee. We sometimes refer to these entities as the Kentucky utilities.



* Debt balances are estimated as of November 16, 2010, prior to Moody's standard adjustments.:

Rating Drivers

- » Increased proportion of regulated businesses
- » Generally supportive regulatory environments
- » Volatility and pressure from weak commodities markets
- » Financial metrics appropriate for the rating
- » Reasonable geographic and fuel diversity
- » Significant capital expenditure plan
- » Sound liquidity profile

Rating Rationale

Increased Proportion of Regulated Businesses

PPL's operations consist primarily of regulated utility businesses in the U.S and the U.K., and non-regulated merchant generation in the United States. In the recent past, PPL's non-regulated operations comprised the majority of its cash flow and assets. In 2009, PPL EU's cash from operations represented approximately 32% of consolidated total cash flow and 23% of assets, while the U.K. operations accounted for approximately 13% of cash flow and 21% of assets. The balance of 55% and 56%, respectively, was generated by PPL Supply's non-regulated merchant generating business in the United States.

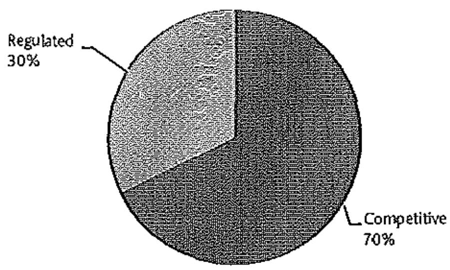
PPL's cash flows, from both regulated and non-regulated operations, have historically been relatively stable, reflecting the low-cost nature of the company's generating assets and the Provider of Last Resort (POLR) arrangements between its Pennsylvania subsidiaries. Under the POLR contracts, which expired in December 2009, prices were set in conjunction with electric rate caps in PPL's Pennsylvania service region. While the POLR agreements helped to stabilize cash flows and effectively reduced overall business risk by providing an offset to the inherent potential volatility of PPL's significant non-regulated merchant operation, the POLR contacts also reduced the amount of cash flow that would otherwise have come from unregulated operations. For the first nine months of 2010, the first year of market rates in Pennsylvania, we estimate that cash flow from PPL Supply's merchant generation operations represented over 80% of consolidated cash from operations.

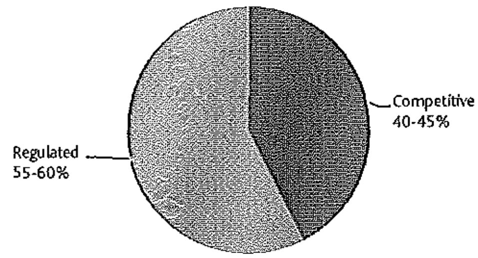
Going forward, we expect increased volatility and pressure from this commodities sensitive business; however, this risk is mitigated to some degree by PPL Supply's hedging strategy, and on a consolidated basis, by PPL's recent acquisition of regulated operations in Kentucky.

As a result of PPL's acquisition of the Kentucky utilities, we anticipate that over 50% of PPL's assets and cash flows will be associated with regulated operations, with roughly half of that 50% expected to come from LKE subsidiaries which is a strong credit positive. Absent the transaction, the regulated contributions would have remained significantly below 50%. The tables below demonstrate PPL's mix of regulated versus unregulated businesses based on its expected EBITDA before and after this acquisition.

FIGURE 1 & 2
Business Mix

2010E Standalone (1) 2011E Combined





(1) Based on mid-point of 2010 forecast

Source: PPL Corporation: April 29, 2010 Presentation – Value/Balance/Growth Acquisition of E.ON U.S.

Generally Supportive Regulatory Environments

As regulated operations represent a significant proportion of PPL's overall business mix, the companies' regulatory relationships are a very important factor in determining its credit quality and rating. Overall, PPL's regulatory relationships continue to generally be supportive of credit quality. PPL EU's transition to competition in Pennsylvania has gone relatively smoothly, aided by a significant decline in commodities prices, which reduced regulated rate shock and encouraged "shopping" by PPL's POLR customers. PPL also took proactive steps to mitigate the potential shock to its customers, introducing phase-in plans that were approved by its regulator. In its U.K. jurisdiction, results of the 2009 regulatory review were generally supportive of WPD's operations for the next several years. Meanwhile, the LKE subsidiaries have historically benefitted from credit supportive relationships with their principal Kentucky regulator which we expect will be maintained under the new PPL ownership.

PPL EU

Moody's generally categorizes the Pennsylvania regulatory framework as being about average for U.S. utilities in terms of supportiveness of credit quality and ability to recover costs and earn returns. PPL EU has historically received reasonable and timely decisions in its transmission and distribution rate cases. In addition, the transition to market rates within PPL EU's service territory has gone relatively smoothly.

Given the magnitude of the rate increase that recently occurred for customers in PPL EU's service territory (approximately 30% for the generation component), we were somewhat cautious about the potential for political intervention; however, this risk has subsided significantly with the passage of time and the reduction in the market price for power. We note, however, that the expiration of generation rate caps applicable to three other large regulated Pennsylvania utilities will not occur until 2011 and some state legislative proposals related to rate caps and rate increase mitigation are still lingering.

The Road to Competition..Smoothing the Bumps

Pennsylvania has been transitioning to a deregulated market for generation since 1998. During this time, PPL EU retained POLR responsibilities in its service territory, and operated under rate caps for generation. Through 2009, PPL EU met its POLR obligation via a Pennsylvania Public Utility Commission (PPUC) approved fixed price power supply agreement with its affiliate PPL Supply. As of January 1, 2010, the rate cap ended and the POLR agreement was terminated as the company transitioned fully into retail market competition; however, PPL EU continues to be the POLR in its service territory.

Until relatively recently, there was a significant amount of regulatory and legislative concern over the potential for rate shock when the generation caps expired in Pennsylvania. In PPL EU's territory rates were at one time expected to increase approximately 40%. There was however, also considerable legislative and regulatory support for the process with the transition ultimately being eased by lower commodities prices along with proactive steps taken by PPL to mitigate rate shock.

Beginning in early 2008, PPL EU conducted a series of electricity purchases through a competitive bidding process. In November 2008, legislation was passed establishing guidelines for all delivery utilities to follow when acquiring power supplies beyond 2010 which includes a prescribed mixture of long-term, short-term and spot purchases. PPL's power purchase plan, which was approved by the PPUC, included a staggered bidding process involving a number of power blocks awarded by PPL EU to suppliers. For its 2010 power requirement, PPL EU completed six planned auctions, securing 100% of the expected needs. The company has also completed five solicitations for the January 2011 through May 2013 period, securing about 80% of its power supply for the first five months of 2011. The price of power procured in the last auction completed in July was $77.25 per MWh for residential customers, while the average prices for the six 2010 load solicitations was $99.48 per MWh for residential customers.

In an effort mitigate the customer impact of the anticipated 2010 rate increase, PPL EU took proactive steps and implemented two programs in 2008 and 2009. The advance-payment program, approved by PPUC in August 2008, allowed customers to make prepayments toward their 2010 and 2011 electric bills to enable them to pay a portion of the anticipated increase over 39 months, beginning October 1, 2008. Approximately 10% of the customers took advantage of this plan. PPL EU has also implemented a second "opt-in" program, whereby customers could elect to defer any 2010 rate increase in excess of 25% over one to two years. At December 31, 2009, PPL EU had recorded a liability of $36 million for these programs. Given the decline in wholesale power prices (around 22% lower in PPL EU's latest solicitation versus initial 2010 procurements), the risk of additional cash deferrals is now significantly lower.

An additional mitigant to rate shock is the fact that approximately 30% of PPL EU's customers have selected an alternate competitive electric supplier, which represents about 48% of the total retail load in its service territory. Generation rates for these consumers rates are generally around 10% lower than they would have been with PPL EU as their provider. Customer "shopping", however, should have limited impact on the operating results of PPL EU, as cost of power for generation is ultimately passed through to customers without margin.

PPL EU's transmission and distribution rate proceedings have generally been non-contentious. Pennsylvania distribution cases have typically been rendered in less than one year with authorized increases in excess of two thirds of the requested amounts. In its current case, filed March 2010, PPL EU requested a $114.7 million revenue increase, based on 11.75% ROE and 48.37% equity ratio. Although the requested increase represents a 13.4% increase in distribution rates, PPL EU estimated that, after consideration of the lower prices of power procured for 2011 versus 2010, its customers' all-in costs would increase by only approximately 2.4%. Under terms of a settlement agreement reached in August 2010, PPL EU will receive a base rate increase of $77.5 million (approximately two thirds of the originally requested amount). The settlement was signed by PPL EU, the Pennsylvania Office of Consumer Advocate (OCA), and the PUC Office of Trial Staff, and an Administrative Law Judge (ALJ) has recommended the settlement be approved. The company anticipates a PPUC decision by the end of 2010, with new rates effective January 2011.

Transmission rates are determined by the Federal Energy Regulatory Commission (FERC). In October 2008, FERC granted PPL EU's request to establish its transmission rates via a forward-looking formula with annual true-ups, which FERC has encouraged as a means to promote investment in transmission. FERC has also awarded incentive rate treatment for PPL EU's participation in a large PJM approved transmission project. The PPUC allows PPL EU rider recovery of any FERC approved transmission charges within its Pennsylvania retail rates.

KU and LG&E

The inclusion of the Kentucky utilities in the consolidated PPL family is viewed positively in terms of overall regulatory supportiveness. Over 90% of LKE's cash flow is generated by its operations in Kentucky, a regulatory environment Moody's considers to be relatively supportive to long-term credit quality with KU and LG&E's regulatory relationships viewed as above the average for U.S. state regulated utilities.

In Kentucky, rate cases are generally required to be settled within one year, construction work in progress is generally allowed in rate base, and the Kentucky Public Service Commission (KPSC) has approved various tracking mechanisms that provide for timely cost recovery, and return on investment outside of a rate case, which significantly reduces regulatory lag.

In its July 2010 order the KPSC approved electric and gas rate increases for LG&E and KU which totaled approximately 75% of the amounts requested in January 2010. The approved ROE ranges were 9.75% - 10.75%. As part of the KPSC approval of PPL's acquisition, the utilities have agreed to a base rate moratorium through January 2013, and a sharing of any earnings in excess of 10.75%. The agreement has no impact on the utilities' ability to seek rate adjustments through their existing fuel and environmental cost adjustment mechanisms.

Approved tracking mechanisms in LG&E's and KU's electric rates include a Fuel Adjustment Clause (FAC), a Environmental Cost Recovery Surcharge (ECR) and a Demand-Side Management Cost Recovery Mechanism (DSM). The FAC is adjusted monthly and allows the company to adjust rates for the difference between the fuel cost component of base rates and the actual fuel costs. Additional charges (or credits) to customers occur if actual fuel costs exceed (or are below) the embedded cost component. The KPSC requires public hearings at six-month intervals to examine past fuel adjustments.

The ECR provides LG&E and KU recovery of costs associated with complying with the Federal Clean Air Act and any other environmental requirement which applies to coal combustion wastes and byproducts. This is an important factor given that the two Kentucky utilities continue to invest significantly in emission control devices. Proceedings are conducted every six-months to evaluate the operation of the ECR. Their rates also include a DSM provision which includes a rate mechanism that provides for concurrent recovery of DSM costs and provides an incentive for implementing DSM programs.

LG&E's natural gas rates contain a Gas Supply Clause (GSC) that provides for quarterly rate adjustments to reflect the expected cost of gas supply in that quarter. The GSC also includes a mechanism whereby any over (or under) recoveries of gas supply costs from prior quarters is refunded (or recovered) from ratepayers.

WPD

Moody's scores WPD's regulatory environment as above average as compared to most U.S. state regulated utilities because it is well established and very transparent. The electricity distribution sector in Great Britain is regulated by the Office of Gas & Electricity Markets (Ofgem) under the Electricity Act 1989, the Utilities Act 2000 and the Energy Act 2004 and 2008. Ofgem has a track record of taking a sophisticated and iterative approach, including shared financial models. The regulatory framework is based on five-yearly settlements that define the companies' revenue entitlement based on an assumption of efficient costs (which in turn stems from benchmarking against peers as well as independent cost assessment) and a fair return on its capital employed (or RAV) which incorporates the required investments. Under this framework, the regulated electricity distribution network operators (DNOs) are subject to efficiency targets. Thus, a key challenge for management is to ensure that its DNO subsidiaries Western Power Distribution (South Wales) (WPD South Wales) and Western Power Distribution South West (WPD South West) remain well positioned, in terms of relative efficiency and capital structure, to accommodate the outcome of future price reviews.

The Final Proposals announced by Ofgem in December 2009 set the price limits for the DNOs in Great Britain for the five-year regulatory period from 1 April 2010 to 31 March 2015 ('DPCR5'). Over that period, WPD South Wales and WPD South West will be allowed to raise prices (after revenue profiling) by 6.2% and 7.5% per annum above inflation, respectively, mainly to fund substantial increases in network investments. Total expenditure allowed by the regulator was only about 1% lower than the DNOs' combined request. This compares favorably with the total allowance for the whole industry, which was 8.4% lower than requested, and reflects the strong level of cost efficiency at WPD South Wales and WPD South West.

While the headline return allowed by Ofgem of 4.0% (post-tax) is materially lower than in the previous regulatory period ('DPCR4'), Moody's notes that the DNOs have been allowed some additional income for, among other things, DPCR5 cost forecasting under the Information Quality Incentive (IQI) mechanism and historical quality of service (CI & CML). For the WPD Group, such additional revenues could amount close to £80 million (in 2007/08 prices) in aggregate over the price control period. The Final Proposals also provide a number of incentives that could significantly improve returns for the best performing companies in the form of additional revenues and the retention of certain cost efficiency savings.

In addition, revenue risk has been somewhat reduced as the volume revenue driver that existed in the previous regulatory period (where revenue allowance was partly linked to the volume of electricity distributed) has been removed for DPCR5. DNOs continue to have very limited exposure to power prices and continue to benefit from a correction factor aimed at offsetting the potential mismatch between allowed and collected revenues.

Volatility and Pressure from Weak Commodities Markets

With the recent Kentucky utilities acquisition PPL's merchant generation business still comprises a significant percentage of its consolidated operations. Although PPL's consolidated cash flows should be more stable and predictable as a result of the acquisition, PPL Supply remains susceptible to volatility and pressure as a result of its exposure to commodity price cycles.

Through 2009, PPL Supply was selling the majority of its output under fixed price contracts with its affiliate, PPL EU. As a result of this arrangement, PPL Supply's cash flows were relatively predictable, but not as robust as would be expected for a Baa2 rated independent unregulated wholesale generating company.

2010 marks the first year that PPL Supply has been able to sell the majority of its generation supply at market rates, and although market prices have declined from the highs experienced in 2008, the company's three year rolling hedge strategy resulted in year to date cash flow that is much more robust than prior years. As market prices have declined, so have the values for which PPL Supply has been able to hedge its future production. As a result, cash flow in 2011 and 2012 is expected to be significantly lower than what is anticipated for calendar year 2010.

PPL has indicated its strong intent to maintain credit metrics appropriate for its ratings. To the extent PPL Supply's cash flow remains under pressure, it may require management to alter capital expenditure and financing plans for this subsidiary, in order to maintain the current Baa2 senior unsecured rating.

The table below summarizes PPL Supply's hedged position as of October 2010[1]. Although, PPL's expected hedge prices have declined, the values still remain somewhat greater than market prices. For example, at the time the data below was presented, PPL Supply saw PJM around the clock average prices at $41 in 2011 and $43 in 2012 versus an expected average price in the east of $63 in 2011 and $64 in 2012. If market prices remain at these levels, pressure on PPL Supply's cash flows will continue. For 2012, which is less hedged, PPL Supply is more susceptible to additional margin deterioration. Cash flow in these years may be more similar to what was experienced in 2008 and 2009.

TABLE 1
PPL Supply Segment Asset Hedge Positions

	2010	2011	2012
Baseload			
Expected Generation * (Million MWhs)	50.3	51.4	54.7
East	41.7	43.1	46.2
West	8.6	8.3	8.5
Current Hedges (%)	100%	97%	68%
East	100%	98%	63%
West	100%	94%	94%
Average Hedged Price (Energy Only) ($/MWh)	$ 59	$ 56	$ 58
East	$ 60	$ 56	$ 59
West	$ 50	$ 54	$ 54
Expected Average Price (Fully Loaded) ($/MWh)	$ 68	$ 61	$ 62
East **	$ 71	$ 63	$ 64
West	$ 50	$ 54	$ 54
% Hedged through Swaps/Options Energy Transactions	97%	96%	67%
% Hedged through Load-following Transactions	3%	1%	1%
Intermediate / Peaking			
Expected Generation (Million MWhs)	6.7	5.3	5.3
Current Hedges (%)	87%	1%	0%
As of October 20, 2010			

* Represents expected sales based on current business plan assumptions
** Represents energy, capacity, congestion, and other revenues
Source: PPL Corporation: 2010 3rd Quarter Earnings Slide (October 28, 2010)

1 PPL's longer dated hedges are primarily options based. This strategy is intended to reduce margin requirements, protect downside risk and preserves some upside; however, it also creates some variability in the hedged values. The hedged prices presented represent probabilistic outcomes based on individual hedge parameters and PPL's view of the likely movement of forward market prices. Although PPL generally establishes a floor at prevailing market levels, depending on factors such as time to exercise and market volatility, hedges may be expected to settle at values that are different than the floor or ceiling prices at the time the hedge was put in place.

Financial Metrics Appropriate for the Rating

PPL consolidated credit metrics are expected to remain within the Baa ranges identified in Moody's August 2009 Rating Methodology for Regulated Electric and Gas Utilities. PPL's consolidated ratio of cash flow excluding changes in working capital (CFO pre-WC) to debt, calculated in accordance with Moody's standard analytical adjustments, and including the Kentucky utilities, is expected to remain in the mid-teens, while its interest coverage ratio is expected to stay above the 4 times level. At PPL EU, credit metrics are expected to decline significantly from their current robust levels, with CFO pre-WC to debt moving into the low-to-mid teens. The credit metrics of PPL Supply are calculated on a consolidated basis, incorporating its ownership of WPD. Although WPD provides a source of stable regulated cash flows, it is also more highly leveraged than would be appropriate for a similarly rated merchant generation company. In 2009, WPD contributed approximately 30% of PPL Supply's CFO pre-WC and represented approximately 35% of its long-term debt outstanding as of December 31st. For the twelve months ended September 30, 2010,we estimate the ratio of PPL Supply's CFO pre-WC/debt excluding WPD to be approximately 27%.

TABLE 2
CFO Pre-WC Interest Coverage

	2007	2008	2009	LTM 9/30/2010
PPL Corporation	4.0x	3.7x	4.4x	4.2x
PPL Electric Utilities Corp.	5.5x	5.5x	4.9x	3.8x
PPL Energy Supply, LLC	4.4x	3.3x	3.4x	4.6x
Western Power Distribution Holdings Ltd.	3.2x	3.5x	3.6x	NA

TABLE 3
(CFO Pre-WC - Dividends) / Debt

	2007	2008	2009	LTM 9/30/2010
PPL Corporation	16%	11%	13%	14%
PPL Electric Utilities Corp.	28%	23%	15%	12%
PPL Energy Supply, LLC	9%	4%	0%	9%
Western Power Distribution Holdings Ltd.	12%	15%	13%	NA

TABLE 4
CFO Pre-WC / Debt

	2007	2008	2009	LTM 9/30/2010
PPL Corporation	21%	16%	19%	19%
PPL Electric Utilities Corp.	35%	28%	29%	18%
PPL Energy Supply, LLC	22%	15%	13%	22%
Western Power Distribution Holdings Ltd.	14%	17%	14%	NA

TABLE 5
Debt / Total Capitalization

	2007	2008	2009	LTM 9/30/2010
PPL Corporation	51%	59%	55%	53%
PPL Electric Utilities Corp.	45%	50%	43%	42%
PPL Energy Supply, LLC	46%	54%	54%	41%
Western Power Distribution Holdings Ltd.	76%	66%	72%	NA

TABLE 6

Baa-rated parent companies (sorted by 3-year average)

			CFO Pre-WC / Debt			
Company	Unsec. Rating	Outlook	5yr Avg	3yr Avg	2009	LTM 2Q10
Exelon Corporation	Baa1	Stable	32.3%	34.1%	36.0%	32.6%
Duke Energy Corporation	Baa2	Stable	24.7%	27.7%	22.5%	21.5%
PG&E Corporation	Baa1	Stable	24.5%	26.7%	26.1%	23.3%
Sempra Energy	Baa1	Stable	24.3%	23.3%	22.0%	20.0%
Entergy Corporation	Baa3	Stable	22.0%	21.9%	21.8%	27.5%
Public Service Enterprise Group	Baa2	Stable	17.6%	20.2%	19.1%	21.3%
Xcel Energy	Baa1	Stable	19.8%	20.0%	20.1%	20.7%
PPL Corporation	**Baa3**	**Stable**	18.6%	18.8%	18.8%	17.5%
Ameren Corporation	Baa3	Stable	18.9%	17.3%	20.8%	22.8%
Edison International	Baa2	Stable	18.8%	17.3%	18.1%	18.7%
SCANA Corporation	Baa2	Negative	17.0%	15.4%	11.9%	16.8%
FirstEnergy Corp.	Baa3	Stable	16.5%	15.2%	15.7%	14.6%
American Electric Power Company	Baa2	Stable	15.4%	15.1%	17.6%	16.5%
Progress Energy	Baa2	Stable	15.4%	15.1%	16.9%	16.0%
MidAmerican Energy Holdings Co.	Baa1	Stable	12.7%	13.7%	16.6%	15.5%
Dominion Resources	Baa2	Stable	14.5%	12.6%	18.1%	12.2%

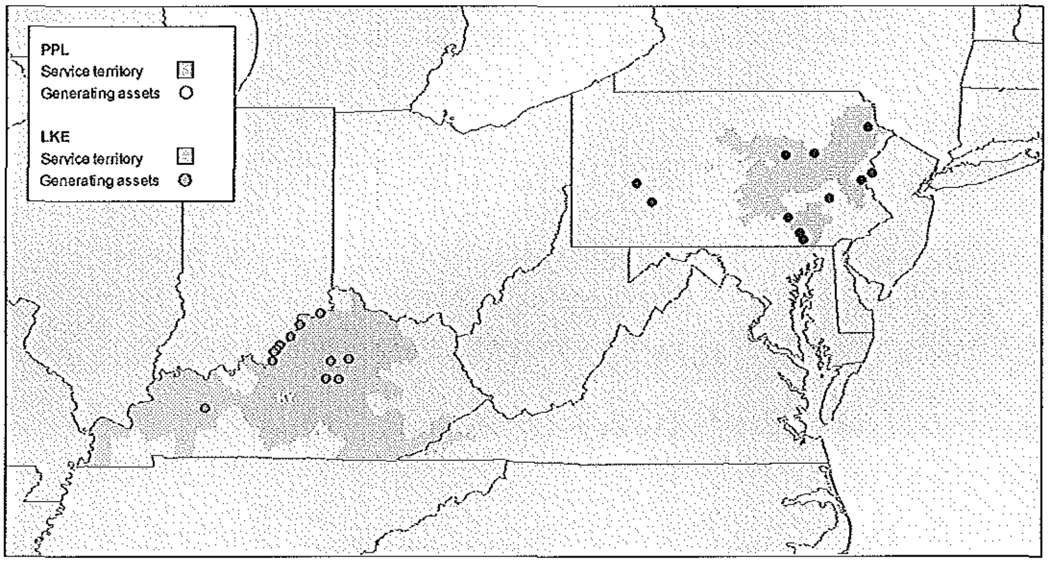
Source: Moody's

Strategically Positioned and Relatively Diverse Generation Portfolio

With approximately 10,700 MWs of wholesale generation resources located primarily within the highly liquid and transparent PJM market along with the strategic positioning of PPL Supply's assets in Montana, we consider PPL's wholesale market and competitive position to be relatively strong. PPL also has generating facilities in New Jersey, Vermont, and New Hampshire.

PPL's regulated operations are conducted in Pennsylvania, the U.K., Kentucky, Tennessee and Virginia, with its regulated generation assets concentrated in Kentucky.

FIGURE 3
U.S. Service Territories



Note: PPL's pre-acquisition territory on the map only includes regulated and unregulated activities in Pennsylvania.
Source: PPL Corporation: April 29, 2010 Presentation – Value/Balance/Growth Acquisition of LKE

PPL benefits from a relatively diverse portfolio of fuel resources, including coal, nuclear, gas, and hydro, albeit with a significant exposure to carbon intense fuels, which has been increased as a result of its acquisition of the Kentucky utilities that produce over 90% of their energy from coal.

TABLE 7
PPL Generation Assets

(Pre-Acquisition)	Total System Capacity (MW)*	
By Fuel Type		
Nuclear	2,206	*21%*
Coal	4,179	*39%*
Natural Gas	1,383	*13%*
Natural Gas / Oil	2,137	*20%*
Hydro	776	*7%*
Other	57	*1%*
Total	**10,738**	***100%***
By Location		
Pennsylvania	9,443	*88%*
Montana	1,286	*12%*
New Jersey	5	*0%*
Vermont	3	*0%*
New Hampshire	1	*0%*
Total	**10,738**	***100%***

* Winter rating system capacity at December 31, 2009. Excludes assets that were held for sale or that have been divested in Connecticut, New York, Maine, Pennsylvania, and Illinois.

Source: PPL Corporation

TABLE 7
PPL Generation Assets

(Pre-Acquisition)	Total System Capacity (MW)*	
(Assets in Kentucky)		
By Fuel Type		
Nuclear	-	*0%*
Coal	5,267	*70%*
Natural Gas	2,164	*29%*
Hydro	76	*1%*
Total	**7,507**	***100%***

Source: LKE

Significant Capital Expenditure Plan

For the three year period of 2010 to 2012, PPL plans to invest a total of about $7.2 billion in capital expenditures, comprised of approximately $5.3 billion for its non-Kentucky subsidiaries and $1.9 billion for the LKE subsidiaries. Significant components of the capital budget include plans for approximately 239 MW of incremental capacity at PPL Energy Supply (primarily hydro and nuclear uprates) and PPL EU's replacement of aging transmission and distribution assets along with its PJM-approved transmission project involving the joint construction of a 150-mile, 500-KV line between its Susquehanna substation in eastern Pennsylvania and the Roseland substation in northern New Jersey.

The $1.9 billion plan for the LKE subsidiaries relates to on-going construction of distribution assets, and the redevelopment of the Ohio Falls hydroelectric facility at LG&E, ash pond and landfill projects, and the installation of Flue Gas Desulfurization systems at several of KU's generating units. Continuing regulatory support for the regulated operations' capital projects and PPL management's well-balanced financing strategy will be integral to the company's future credit profile.

TABLE 8
Capital Expenditures: 2010 - 2012

($ Million)	2010	2011	2012	Total 2010-2012
PPL Family (ex LKE)				
Generating facilities	$671	$673	$507	$1,851
Transmission & Distribution	675	853	913	2,441
Environmental	63	19	99	181
Other	115	108	106	329
Sub-Total	$1,524	$1,653	$1,625	$4,802
Nuclear Fuel	151	173	171	495
Total	$1,675	$1,826	$1,796	$5,297
LG&E and KU Energy	$610	$651	$661	$1,922
Total	$2,285	$2,477	$2,457	$7,219

Sources: PPL Corp 10-Q (3Q 2010) & E.ON US Acquisition Presentation (April 29, 2010)

Sound Liquidity Profile

PPL maintains an adequate liquidity profile, with sufficient credit facilities to support its operations. On a consolidated basis in 2009, cash flow from operations of approximately $1.9 billion was sufficient to cover PPL's outlays including approximately $1.2 billion of capital expenditures and approximately $520 million of common stock dividends. In 2010, cash flow is expected to be well in excess of $2 billion which will be more than sufficient to cover capital expenditures and dividends for the year. In 2011, primarily as result of lower merchant power prices, PPL's consolidated cash flows are anticipated to decline, and are not expected to cover planned capital expenditures (including those at LKE) and common dividends. Shortfalls are expected to be met via a combination of debt and equity financing.

During 2010, PPL's acquisition of LKE required approximately $6.8 billion which was funded via a balanced combination of debt and equity. In June 2010, PPL completed the sale of 103.5 million shares of common stock and issued approximately $1.15 billion of equity linked debt securities, generating total proceeds of approximately $3.5 billion in permanent capital. Also in June PPL obtained a new $4 billion credit facility at PPL Supply, which was executed on October 19th with approximately $3 billion drawn to initially complete the LKE acquisition on November 1st. PPL subsequently issued approximately $1.5 billion of first mortgage bonds at KU, $535 million of first mortgage bonds at LG&E and $875 million of senior unsecured notes at LKE which were used to repay the PPL Supply credit facility. On November 18th, PPL reduced the size of PPL Supply's revolver to $3 billion.

As a holding company, PPL's primary source of liquidity is the dividends it receives from its operating subsidiaries. In 2009, PPL received dividends of approximately $1.2 billion, including approximately $940 million from PPL Supply plus approximately $290 million from PPL EU, which was more than sufficient to cover its overhead costs, interest expense at PPL Capital Funding of approximately $40 million, as well as dividends to common shareholders of approximately $520 million. We anticipate 2010 full year dividend funds will again be sufficient to cover overhead costs, interest expenses at PPL Capital Funding and PPL's common stock dividends. Going forward, we expect total dividends from subsidiaries (including LKE) to be approximately $900 million, sufficient to cover common dividends of approximately $700 million and parent level interest expense of approximately $145 million.

While PPL has no parent level debt outstanding, it does fully guarantee all of the debt at PPL Capital, which has no debt maturities until 2047. At the subsidiary level, PPL EU's nearest debt maturity is November 2013, when $400 million of senior secured notes are due. At LKE, the nearest maturities are $400 million of senior unsecured notes due 2015, and $250 million of first mortgage bonds at each of KU and LGE also due in 2015. PPL Supply's nearest debt maturity is $500 million of senior notes due November 2011. At PPL's U.K. subsidiaries, there is no maturing debt until 2017. The U.K. subsidiary debt continues to be non-recourse to PPL Supply or PPL.

As of September 30, 2010, PPL's subsidiaries had external liquidity facilities totaling approximately $4.6 billion in committed facilities to support their short-term liquidity needs, of which approximately $4.1 billion was immediately available. These facilities were scheduled to expire between 2011 and 2013.

TABLE 9

Liquidity Profile as of September 30, 2010

($ Million / £ Million)	Cash and Cash Equivalents	Credit Facility	Expiraton Date	Total Capacity	Borrowings & LCs	Unused Capacity
PPL Corporation	$4,853	None		NA	NA	NA
PPL Energy Supply, LLC [1][2]	$4,442	5-year Credit Facility	Jun-12	$3,225	$5	$3,220
		3-year Bilateral Credit Facility	Mar-13	$200	$85	$115
		5-year Structured Credit Facility	Mar-11	$300	$143	$157
				$3,725	**$233**	**$3,492**
PPL Electric Utilities Corp. [3]	$297	5-year Credit Facility	May-12	$190	$13	$177
		Asset-backed Credit Facility	Jul-11	$150	$0	$150
WPD Holdings Ltd.	£188	3-year Credit Facility	Jul-12	£210	£0	£210
		5-year Credit Facility	Jan-13	£150	£121	£29
		Uncommitted Credit Facilities		£63	£3	£60
Total [4]				$4,698	$431	$4,266

[1] Credit facility information includes domestic facilities only. Cash-on-hand information includes cash held by WPD Holdings.

[2] In October 2010, PPL Energy Supply terminated the $3.2 billion 5-year facility and installed a $4 billion facility. PPL Energy Supply subsequently borrowed $3.2 billion from the new revolver to help fund a portion of financings required for E.ON U.S. acquisition.

[3] Out of the $340 million facility capacity, the $190 million 5-year facility expiring in May 2012 has been replaced by a new $200 million facility expiringin December 31, 2014, upon the close of E.ON U.S. transaction.

[4] USD to UK Pounds conversion rate was approximately 1.496, implied by PPL's disclosure of liquidity figures in both currencies in its 3Q 2010 10-Q.

In conjunction with the E.ON U.S. transaction, PPL replaced and extended the majority of its domestic facilities. PPL Supply's previous $3.2 billion 5-year facility was replaced by a new $4 billion facility expiring December 2014, and PPL EU's previous $190 million facility was replaced by a new $200 million syndicated facility also expiring December 2014. PPL also established a $400 million four-year credit facility at each of LG&E and KU.

In addition to the new $4 billion 5-year facility (subsequently reduced to $3 billion), in November 2010, PPL Supply's marketing subsidiary, PPL Energy Plus LLC, put in place an $800 million secured energy marketing and trading facility, guaranteed by PPL Supply, which company will able to use to satisfy collateral posting obligations with counterparties participating in the facility. The facility expires in October 2015.

PPL's credit facilities each contain one financial covenant; a maximum debt to capitalization ratio of 65% at PPL Supply and 70% at LG&E and KU. None of these facilities, however, contain a material adverse change (MAC) clause.

TABLE 10

Domestic Credit Facilities as of November 1, 2010 (Post Acqusition)

Entity	Facility	Expiration Date	Total Facilities
($ millions)			
PPL Energy Supply, LLC	Multi-year Credit Facility	Dec-14	$ 4000 *
	3-year Bilateral Credit Facility	Mar-13	200
	Secured Trading Facility	Sep-15	800
			5,000
PPL Electric Utilities Corp.	Multi-year Credit Facility	Dec-14	200
	Asset-backed Credit Facility	Jul-11	150
Louisville Gas & Electric	Multi-year Credit Facility	Dec-14	400
Kentucky Utilities	Multi-year Credit Facility	Dec-14	400
Total Domestic Credit Facilities			$6,150

* Reduced to $3 billion as of November 18, 2010.

Conclusion

PPL Corporation is well positioned at its Baa3 Issuer Rating. The rating and stable outlook is supported by the additional regulatory scale, diversity and cash flow predictability that comes from its acquisition of the Kentucky utilities and our expectation that going forward, over 50% of PPL's assets and cash flows will be associated with regulated operations, a strong credit positive. Regulatory relationships will continue to be a key factor driving ratings, particularly as PPL implements significant capital expenditure programs at all of its utility subsidiaries. PPL's wholesale generating subsidiary, PPL Supply, benefits from a relatively strong market and competitive position stemming from its base-load generation portfolio which is located primarily near load serving entities within the highly liquid and transparent PJM market. However, the company still faces challenges from weakened commodities markets which are likely to put pressure on its credit metrics and may require management to alter capital expenditure and/or financing plans to maintain PPL Supply's current Baa2 senior unsecured rating.

Appendix – Key Financials

PPL Corporation
($ Thousands, as Adjusted)

	2006	2007	2008	2009	LTM3Q10
Interest Expense	$516,236	$576,020	$611,169	$532,483	$668,964
CFO	$1,860,149	$1,562,472	$1,622,326	$1,914,660	$2,354,917
Change in w/c	$161,000	$(178,000)	$(9,000)	$106,000	$189,000
CFO-w/c	$1,699,149	$1,740,472	$1,631,326	$1,808,660	$2,165,917
Change in other A&L	$(5,000)	$(110,000)	$(87,000)	$(3,000)	$(193,000)
FFO	$1,704,149	$1,850,472	$1,718,326	$1,811,660	$2,358,917
Dividends	$(394,816)	$(453,472)	$(489,660)	$(515,660)	$(517,917)
CFO-w/c-dividends	$1,304,333	$1,287,000	$1,141,667	$1,293,000	$1,648,000
RCF (FFO-Div)	$1,309,333	$1,397,000	$1,228,667	$1,296,000	$1,841,000
CapEx	$(1,431,333)	$(1,702,000)	$(1,741,667)	$(1,297,000)	$(1,453,000)
FCF	$34,000	$(593,000)	$(609,000)	$102,000	$384,000
As Rpt STD	$42,000	$92,000	$679,000	$639,000	$181,000
As Rpt Gross Debt	$7,835,000	$7,568,000	$7,838,000	$7,143,000	$8,839,000
As Rpt Total Debt	$7,877,000	$7,660,000	$8,517,000	$7,782,000	$9,020,000
Change in Debt		$(217,000)	$857,000	$(735,000)	$1,238,000
Pension Adjustment	$370,000	$69,000	$904,000	$1,290,000	$1,290,000
Lease Adjustment	$423,730	$417,071	$470,916	$478,430	$478,430
Other Adjustment	$301,000	$51,000	$51,000	$51,000	$751,000
Total Adjustments	$1,094,730	$537,071	$1,425,916	$1,819,430	$2,519,430
Total Adj Debt	$8,971,730	$8,197,071	$9,942,916	$9,601,430	$11,539,430
Minority Interest	$60,000	$19,000	$319,000	$319,000	$268,000
Total Adj Equity	$5,122,000	$5,761,592	$4,987,069	$5,410,592	$7,538,592
Deferred Tax Liability (LT)	$2,331,000	$2,180,408	$1,742,931	$2,143,408	$2,458,408
Total Adj Capitalization	$16,484,730	$16,158,071	$16,991,916	$17,474,430	$21,804,430
(CFO-w/c + Interest) / Interest	4.3x	4.0x	3.7x	4.4x	4.2x
(CFO-w/c) / Debt	18.9%	21.2%	16.4%	18.8%	18.8%
FFO / Debt	19.0%	22.6%	17.3%	18.9%	20.4%
(CFO-w/c - Dividends) / Debt	14.5%	15.7%	11.5%	13.5%	14.3%
RCF / Debt	14.6%	17.0%	12.4%	13.5%	16.0%
Debt / Capitalization	54.4%	50.7%	58.5%	54.9%	52.9%
FCF / Debt	0.4%	-7.2%	-6.1%	1.1%	3.3%

PPL Electric Utilties Corporation
($ Thousands, as Adjusted)

	2006	2007	2008	2009	LTM3Q10
Interest Expense	$160,526	$142,813	$140,324	$143,108	$123,997
CFO	$579,474	$560,188	$640,188	$286,188	$328,188
Change in w/c	$15,000	$(76,000)	$13,000	$(275,000)	$(21,000)
CFO-w/c	$564,474	$636,188	$627,188	$561,188	$349,188
Change in other A&L	$(13,000)	$1,000	$11,000	$1,000	$(58,000)
FFO	$577,474	$635,188	$616,188	$560,188	$407,188
Dividends	$(110,141)	$(129,188)	$(108,188)	$(284,188)	$(126,188)
CFO-w/c-dividends	$454,333	$507,000	$519,000	$277,000	$223,000
RCF (FFO-Div)	$467,333	$506,000	$508,000	$276,000	$281,000
CapEx	$(296,333)	$(286,000)	$(275,000)	$(298,000)	$(363,000)
FCF	$173,000	$145,000	$257,000	$(296,000)	$(161,000)
As Rpt STD	$42,000	$41,000	$95,000	$ -	$ -
As Rpt Gross Debt	$1,978,000	$1,674,000	$1,769,000	$1,472,000	$1,472,000
As Rpt Total Debt	$2,020,000	$1,715,000	$1,864,000	$1,472,000	$1,472,000
Change in Debt		$(305,000)	$149,000	$(392,000)	$ -
Pension Adjustment	$ -	$ -	$264,600	$309,400	$309,400
Lease Adjustment	$66,000	$ -	$ -	$ -	$ -
Other Adjustment	$125,000	$125,000	$125,000	$125,000	$125,000
Total Adjustments	$191,000	$125,000	$389,600	$434,400	$434,400
Total Adj Debt	$2,211,000	$1,840,000	$2,253,600	$1,906,400	$1,906,400
Minority Interest	$ -	$ -	$ -	$ -	$ -
Total Adj Equity	$1,434,000	$1,461,000	$1,521,000	$1,771,000	$1,815,000
Deferred Tax Liability (LT)	$814,000	$763,000	$767,000	$769,000	$811,000
Total Adj Capitalization	$4,459,000	$4,064,000	$4,541,600	$4,446,400	$4,532,400
(CFO-w/c + Interest) / Interest	4.5x	5.5x	5.5x	4.9x	3.8x
(CFO-w/c) / Debt	25.5%	34.6%	27.8%	29.4%	18.3%
FFO / Debt	26.1%	34.5%	27.3%	29.4%	21.4%
(CFO-w/c - Dividends) / Debt	20.5%	27.6%	23.0%	14.5%	11.7%
RCF / Debt	21.1%	27.5%	22.5%	14.5%	14.7%
Debt / Capitalization	49.6%	45.3%	49.6%	42.9%	42.1%
FCF / Debt	7.8%	7.9%	11.4%	-15.5%	-8.4%

PPL Energy Supply, LLC
($ Thousands, as Adjusted)

	2006	2007	2008	2009	LTM3Q10
Interest Expense	$307,216	$363,000	$445,317	$389,640	$452,027
CFO	$1,331,667	$1,115,000	$1,088,966	$1,481,072	$1,907,072
Change in w/c	$140,000	$(124,000)	$78,000	$533,000	$299,000
CFO-w/c	$1,191,667	$1,239,000	$1,010,966	$948,072	$1,608,072
Change in other A&L	$(14,000)	$(85,000)	$(170,701)	$(261,928)	$(250,928)
FFO	$1,205,667	$1,324,000	$1,181,667	$1,210,000	$1,859,000
Dividends *	$(712,000)	$(759,000)	$(750,000)	$(943,000)	$(968,000)
CFO-w/c-dividends	$479,667	$480,000	$260,966	$5,072	$640,072
RCF (FFO-Div)	$493,667	$565,000	$431,667	$267,000	$891,000
CapEx	$(1,037,667)	$(1,379,000)	$(1,431,667)	$(968,000)	$(1,056,000)
FCF	$(418,000)	$(1,023,000)	$(1,092,701)	$(429,928)	$(116,928)
As Rpt STD	$-	$51,000	$584,000	$639,000	$181,000
As Rpt Gross Debt	$5,376,000	$5,070,000	$5,196,000	$5,031,000	$5,562,000
As Rpt Total Debt	$5,376,000	$5,121,000	$5,780,000	$5,670,000	$5,743,000
Change in Debt		$(255,000)	$659,000	$(110,000)	$73,000
Pension Adjustment	$246,000	$-	$639,400	$980,600	$980,600
Lease Adjustment	$423,730	$417,071	$470,916	$478,430	$478,430
Other Adjustment	$-	$-	$-	$-	$-
Total Adjustments	$669,730	$417,071	$1,110,316	$1,459,030	$1,459,030
Total Adj Debt	$6,045,730	$5,538,071	$6,890,316	$7,129,030	$7,202,030
Minority Interest	$60,000	$19,000	$18,000	$18,000	$18,000
Total Adj Equity	$4,518,320	$5,162,282	$4,755,304	$4,529,345	$8,578,345
Deferred Tax Liability (LT)	$1,358,680	$1,402,718	$1,100,696	$1,504,655	$1,784,655
Total Adj Capitalization	$11,982,730	$12,122,071	$12,764,316	$13,181,030	$17,583,030
(CFO-w/c + Interest) / Interest	4.9x	4.4x	3.3x	3.4x	4.6x
(CFO-w/c) / Debt	19.7%	22.4%	14.7%	13.3%	22.3%
FFO / Debt	19.9%	23.9%	17.1%	17.0%	25.8%
(CFO-w/c - Dividends) / Debt	7.9%	8.7%	3.8%	0.1%	8.9%
RCF / Debt	8.2%	10.2%	6.3%	3.7%	12.4%
Debt / Capitalization	50.5%	45.7%	54.0%	54.1%	41.0%
FCF / Debt	-6.9%	-18.5%	-15.9%	-6.0%	-1.6%

* Dividends in 2007 adjusted for special dividends to PPL Corp. associated with Latin American asset sales.

Western Power Distribution Holdings
(£ Thousands, as Adjusted)

	2006	2007	2008	2009
Net Interest Expense	£92,180	£85,988	£79,642	£85,242
Capital Charges	£107,200	£121,400	£122,404	£148,429
CFO	£232,533	£282,333	£289,033	£267,233
Change in w/c	£5,300	£74,900	£59,200	£28,600
CFO-w/c	£227,233	£207,433	£229,833	£238,633
Change in other A&L	£-	£-	£-	£-
FFO	£227,233	£207,433	£229,833	£238,633
Dividends	£(15,000)	£(33,500)	£(30,000)	£(18,800)
CFO-w/c-dividends	£212,233	£173,933	£199,833	£219,833
RCF (FFO-Div)	£212,233	£173,933	£199,833	£219,833
CapEx	£(180,033)	£(208,633)	£(211,733)	£(221,133)
FCF	£37,500	£40,200	£47,300	£27,300
As Rpt STD	£8,600	£8,800	£10,300	£9,100
As Rpt Gross Debt	£1,063,400	£1,211,400	£1,129,500	£1,300,600
As Rpt Total Debt	£1,072,000	£1,220,200	£1,139,800	£1,309,700
Change in Debt		£148,200	£(80,400)	£169,900
Pension Adjustment	£172,900	£160,800	£90,300	£329,400
Lease Adjustment	£12,000	£15,600	£17,400	£19,200
Other Adjustment	£91,300	£89,400	£74,200	£(9,500)
Total Adjustments	£276,200	£265,800	£181,900	£339,100
Total Adj Debt	£1,348,200	£1,486,000	£1,321,700	£1,648,800
Minority Interest	£-	£-	£-	£-
Total Adj Equity	£77,300	£150,000	£342,300	£362,800
Deferred Tax Liability (LT)	£308,900	£322,800	£325,600	£264,500
Total Adj Capitalization	$ 1,734,400	$ 1,958,800	$ 1,989,600	$ 2,276,100
Adj Net Debt	£1,343,800	£1,330,500	£1,252,000	£1,644,400
RAV (Regulatory Asset Value)	£1,587,200	£1,669,600	£1,694,900	£1,772,900
(CFO-w/c + Interest) / Interest	3.5x	3.4x	3.9x	3.8x
(CFO-w/c) / Debt	16.9%	14.0%	17.4%	14.5%
FFO / Debt	16.9%	14.0%	17.4%	14.5%
(CFO-w/c - Dividends) / Debt	15.7%	11.7%	15.1%	13.3%
RCF / Debt	15.7%	11.7%	15.1%	13.3%
Debt / Capitalization	77.7%	75.9%	66.4%	72.4%
Adjusted ICR	2.3x	2.0x	2.3x	2.1x
Net Debt / RAV	84.7%	79.7%	73.9%	92.8%
FFO / Net Debt	16.9%	15.6%	18.4%	14.5%
RCF / Capex	1.2x	0.8x	0.9x	1.0x

Louisville Gas and Electric Company
($ Thousands, as Adjusted)

	2006	2007	2008	2009	LTM3Q10
Interest Expense	$45,688	$52,467	$68,509	$52,716	$49,981
CFO	$337,333	$191,333	$193,000	$324,000	$215,000
Change in w/c	$88,000	$(46,000)	$(72,000)	$53,000	$(113,000)
CFO-w/c	$249,333	$237,333	$265,000	$271,000	$328,000
Change in other A&L	$(14,000)	$(38,000)	$47,000	$(16,000)	$(5,000)
FFO	$263,333	$275,333	$218,000	$287,000	$333,000
Dividends	$(99,000)	$(69,000)	$(40,000)	$(80,000)	$(55,000)
CFO-w/c-dividends	$150,333	$168,333	$225,000	$191,000	$273,000
RCF (FFO-Div)	$164,333	$206,333	$178,000	$207,000	$278,000
CapEx	$(149,333)	$(206,333)	$(247,000)	$(190,000)	$(171,000)
FCF	$89,000	$(84,000)	$(94,000)	$54,000	$(11,000)
As Rpt STD	$68,000	$78,000	$222,000	$170,000	$122,000
As Rpt Gross Debt	$820,000	$984,000	$896,000	$896,000	$896,000
As Rpt Total Debt	$888,000	$1,062,000	$1,118,000	$1,066,000	$1,018,000
Change in Debt		$174,000	$56,000	$(52,000)	$(48,000)
Pension Adjustment	$52,000	$13,000	$143,000	$116,000	$116,000
Lease Adjustment	$30,000	$30,000	$36,000	$36,000	$36,000
Other Adjustment	$-	$-	$-	$-	$-
Total Adjustments	$82,000	$43,000	$179,000	$152,000	$152,000
Total Adj Debt	$970,000	$1,105,000	$1,297,000	$1,218,000	$1,170,000
Minority Interest	$-	$-	$-	$-	$-
Total Adj Equity	$1,164,000	$1,161,000	$1,234,000	$1,253,000	$1,315,000
Deferred Tax Liability (LT)	$333,000	$342,000	$360,000	$373,000	$416,000
Total Adj Capitalization	$2,467,000	$2,608,000	$2,891,000	$2,844,000	$2,901,000
(CFO-w/c + Interest) / Interest	6.5x	5.5x	4.9x	6.1x	7.6x
(CFO-w/c) / Debt	25.7%	21.5%	20.4%	22.2%	28.0%
FFO / Debt	27.1%	24.9%	16.8%	23.6%	28.5%
(CFO-w/c - Dividends) / Debt	15.5%	15.2%	17.3%	15.7%	23.3%
RCF / Debt	16.9%	18.7%	13.7%	17.0%	23.8%
Debt / Capitalization	39.3%	42.4%	44.9%	42.8%	40.3%
FCF / Debt	9.2%	-7.6%	-7.2%	4.4%	-0.9%

Kentucky Utilities Company
($ Thousands, as Adjusted)

	2006	2007	2008	2009	LTM3Q10
Interest Expense	$43,905	$59,232	$83,044	$83,950	$85,835
CFO	$227,000	$318,000	$298,000	$266,667	$376,667
Change in w/c	$(46,000)	$(1,000)	$(10,000)	$(87,000)	$(72,000)
CFO-w/c	$273,000	$319,000	$308,000	$353,667	$448,667
Change in other A&L	$(25,000)	$(6,000)	$(5,000)	$7,000	$104,000
FFO	$298,000	$325,000	$313,000	$346,667	$344,667
Dividends	$-	$-	$-	$-	$(50,000)
CFO-w/c-dividends	$273,000	$319,000	$308,000	$353,667	$398,667
RCF (FFO-Div)	$298,000	$325,000	$313,000	$346,667	$294,667
CapEx	$(351,000)	$(749,000)	$(692,000)	$(522,667)	$(362,667)
FCF	$(124,000)	$(431,000)	$(394,000)	$(256,000)	$(36,000)
As Rpt STD	$97,000	$23,000	$16,000	$45,000	$61,000
As Rpt Gross Debt	$843,000	$1,264,000	$1,532,000	$1,682,000	$1,682,000
As Rpt Total Debt	$940,000	$1,287,000	$1,548,000	$1,727,000	$1,743,000
Change in Debt		$347,000	$261,000	$179,000	$16,000
Pension Adjustment	$50,000	$20,000	$123,000	$97,000	$97,000
Lease Adjustment	$36,000	$36,000	$54,000	$60,000	$60,000
Other Adjustment	$-	$-	$-	$-	$-
Total Adjustments	$86,000	$56,000	$177,000	$157,000	$157,000
Total Adj Debt	$1,026,000	$1,343,000	$1,725,000	$1,884,000	$1,900,000
Minority Interest	$-	$-	$-	$-	$-
Total Adj Equity	$1,193,000	$1,435,000	$1,744,000	$1,952,000	$2,029,000
Deferred Tax Liability (LT)	$289,000	$285,000	$279,000	$336,000	$378,000
Total Adj Capitalization	$2,508,000	$3,063,000	$3,748,000	$4,172,000	$4,307,000
(CFO-w/c + Interest) / Interest	7.2x	6.4x	4.7x	5.2x	6.2x
(CFO-w/c) / Debt	26.6%	23.8%	17.9%	18.8%	23.6%
FFO / Debt	29.0%	24.2%	18.1%	18.4%	18.1%
(CFO-w/c - Dividends) / Debt	26.6%	23.8%	17.9%	18.8%	21.0%
RCF / Debt	29.0%	24.2%	18.1%	18.4%	15.5%
Debt / Capitalization	40.9%	43.8%	46.0%	45.2%	44.1%
FCF / Debt	-12.1%	-32.1%	-22.8%	-13.6%	-1.9%

Moody's Related Research

Industry Outlook:

» U.S. Electric Utilities Stable But Face Increasing Regulatory Uncertainty, July 2010 (125996)

Rating Methodologies:

» Regulated Electric and Gas Utilities, August 2009 (118481)

» Unregulated Utilities and Power Companies, August 2009 (118508)

» Regulated Electric and Gas Networks, August 2009 (118786)

Special Comments:

» Investment-Grade, Unregulated Power: Not Immune to Rating Pressures, November 2010 (128985)

» Regulatory Frameworks – Ratings and Credit Quality for Investor-Owned Utilities, June 2010 (125664)

» Cost Recovery Provisions Key to Investor Owned Utility Ratings and Credit Quality, June 2010 (122304)

» Liquidity: A Key Component to Investor-Owned Utility Ratings and Credit Quality, September 2010 (127546)

» Evaluating the Leverage of Unregulated Power Companies, October 2009 (120835)

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Report Number: 129251

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Announcement: Moody's affirms PPL's ratings following acqusition announcement; outlook stable

Global Credit Research - 02 Mar 2011

Approximately $ 16.0 Billion of Debt Securities and Credit Facilities Affected.

New York, March 02, 2011 -- Moody's Investors Service affirmed the ratings of PPL Corporation (PPL: Baa3 Issuer Rating) and its subsidiaries following yesterday's announcement that it had reached a definitive agreement to acquire the Central Networks electric distribution business from E.ON UK plc for 4.0 billion pounds Sterling ($6.4 billion), which includes the assumption of 500 million pounds ($800 million) of existing public debt. The rating outlook for PPL and its subsidiaries is stable.

"The rating affirmation recognizes that the planned acquisition of Central Networks further de-risks PPL's overall business platform as more than 70% of consolidated results will be provided by predictable, rate regulated businesses from three different jurisdictions, making the company's earnings, cash flow, and dividends less reliant on the company's commodity business", said A.J. Sabatelle, Senior Vice President of Moody's.

The rating action considers the pro-forma consolidated credit profile of PPL, and factors in the increasing proportion of regulated activities, the geographic diversity across these businesses, and the declining exposure to the commodities business as a source of cash flow and earnings. To that end, the rating affirmation acknowledges that the combination of the Central Networks transaction coupled with last year's acquisition of LG&E and KU Energy LLC (LKE: Baa2 Senior Unsecured Debt) and its subsidiaries have transitioned the company from a smaller, more regional commodity sensitive concern to a larger, more geographically diverse company with a more sustainable business model.

The rating affirmation considers the relatively conservative manner in which PPL intends to permanently finance the acquisition, including the issuance of $1.7 -- $1.9 billion of PPL common stock and $750 -- $950 million of convertible equity units, which helps to maintain balance sheet strength, and more strongly positions PPL in its current investment grade rating category. We understand that the company intends to permanently finance the remainder of the transaction with debt issued at both the Central Networks operating and holding company levels in a manner which targets a low Baa rating for the consolidated regulated networks business. While this degree of leverage in the capital structure at Central Networks does slightly weaken PPL's consolidated credit metrics, the degree of dependable cash flow expected to be derived from this transaction and from the earlier LKE acquisition makes the organization's overall credit quality more resilient to any potential negative credit events within the family.

Moody's also recognizes the track record that PPL has demonstrated in the UK in operating its existing Western Power Distribution (WPD) business where WPD ranks in the top tier in several different efficiency and performance standards and where those network's tariffs were recently reset for a five-year period. However, our rating affirmation balances this expected performance and the opportunities for potential synergies against the challenges that we believe management may face in successfully integrating two large acquisitions in a fairly compressed timeframe -- the LKE acquisition which closed about four months ago and the Central Networks acquisition which is expected to close next month. This somewhat guarded view considers the substantially larger size of the Central Networks operations relative to WPD and the fact that all UK electric distribution networks have gone through various rounds of cost saving initiatives over the last decade.

With respect to the PPL subsidiaries' ratings, Moody's views the acquisition as being a credit supportive development for these ratings as no incremental debt is being added at any of the affiliates while the transaction provides another source of reliable earnings, cash flow, and dividends to the overall enterprise. In particular, Moody's believes that PPL Energy Supply, LLC (PPL Supply), the company's unregulated power subsidiary, indirectly benefits from the Central Networks and LKE transactions as they should reduce the company's reliance on this commodity driven subsidiary for earnings and dividends, enabling this unregulated operation to potentially utilize any free cash flow for future debt reduction. That being said, PPL Supply remains weakly positioned at its current Baa2 senior unsecured rating and while recently reported 2010 results were strong, future financial performance is expected to weaken particularly in 2012 due to the various challenges affecting all unregulated power companies. As such, while the benefits of the Central Networks and LKE acquisitions help mitigate near-term downward rating pressure at PPL Supply, negative rating pressure remains at this subsidiary.

Importantly, to the extent that a negative rating action is taken at PPL Supply, the probability of a similar rating action occurring at PPL or its subsidiaries has been greatly reduced, given the business and risk profile transformation that will occur from the completion of the Central Networks and LKE transactions.

The stable outlook for PPL reflects our view that the planned acquisition of Central Networks will be financed in a balanced manner and that upon completion, PPL's credit quality will have been fortified through the reduction in overall business risk at the company. While we view the Central Networks and LKE acquisitions as transforming events which could form the basis for positive rating momentum at PPL, prospects for the company to be upgraded in the near --term are limited in light of the execution risks in integrating these two large acquisitions at the same time coupled with some of the market-based issues currently facing the company's unregulated business. However, to the extent that the integration process at both Central Networks and LKE meets the company's expectation and PPL continues to take actions that lower overall enterprise risk and leverage over time, PPL's rating could be upgraded. Conversely, the prospects for downward rating action are limited in the intermediate term, as Moody's views PPL as being strongly positioned at the current rating category and fairly resilient to withstand downward pressure in the family given the diversified set of rate regulated operations at the company and the reduced exposure to the commodity business.

The principal methodology used in rating PPL was Rating Methodology: Regulated Electric and Gas Utilities, published August 2009 and available on www.moodys.com in the Rating Methodologies sub-directory under the Research and Ratings tab. Other methodologies and factors that may have been considered in the process of rating these issuers can also be found in the Rating Methodologies sub-directory on Moody's website.

Please see ratings tab on the issuer/entity page on Moodys.com for the last rating action and the rating history.

PPL is a diversified energy holding company headquartered in Allentown, Pennsylvania.

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MOODY'S
INVESTORS SERVICE

Credit Opinion: PPL Corporation

Global Credit Research - 30 Mar 2012

Allentown, Pennsylvania, United States

Ratings

Category	Moody's Rating
Outlook	Stable
Issuer Rating	Baa3
Western Power Distrib (East Midlands) Plc	
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured -Dom Curr	Baa1
ST Issuer Rating	P-2
Western Power Distrib (West Midlands) Plc	
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured -Dom Curr	Baa1
PPL Energy Supply, LLC	
Outlook	Stable
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Commercial Paper	P-2
Kentucky Utilities Co.	
Outlook	Stable
Issuer Rating	Baa1
First Mortgage Bonds	A2
Sr Unsec Bank Credit Facility	Baa1
Commercial Paper	P-2

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Key Indicators

[1]PPL Corporation

	2011	2010	2009	2008
(CFO Pre-W/C + Interest) / Interest Expense	4.0x	5.1x	4.5x	3.9x
(CFO Pre-W/C) / Debt	15.5%	17.8%	18.8%	16.4%
(CFO Pre-W/C - Dividends) / Debt	11.4%	13.8%	13.5%	11.5%
Debt / Book Capitalization	55.4%	55.9%	54.9%	58.5%

[1] All ratios calculated in accordance with the Global Regulated Electric Utilities Rating Methodology using Moody's standard adjustments.

Note: For definitions of Moody's most common ratio terms please see the accompanying User's Guide.

Opinion

Rating Drivers

-Recent transformative acquisitions

-Regulated businesses operate under above average regulatory frameworks

-Well-positioned consolidated credit metrics for rating category

-Conservative financing approach to recent acquisitions supports rating profile

-Substantial capital investment program due to pending environmental regulations

-As a holding company, PPL creditors are impacted by structural subordination

Corporate Profile

PPL Corporation (PPL: Baa3 Issuer Rating, stable) is a diversified energy holding company headquartered in Allentown, PA. PPL owns or controls about 19,000 megawatts of generating capacity in the US, sells energy in key U.S. markets, and delivers electricity and natural gas to about 10 million customers in the US and the UK.

SUMMARY RATING RATIONALE

PPL's rating is reflective of the consolidated credit profile which has been transformed to a more diversified, more rate regulated platform from a largely commodity driven, more regionally focused operation. We estimate that in 2012 at least 70% of consolidated results will be provided by more predictable, rate regulated businesses from three different jurisdictions, several of which have an above-average regulatory profile. To that end, the rating incorporates the reduced reliance that PPL will have on earnings and dividends derived from its less predictable unregulated, commodity business which will experience reduced margins due to lower commodity prices. The rating recognizes the growing importance that the company's Kentucky operations will have on future results which include plans to make substantial environmental capital investments. We observe that the transition to market rates in Pennsylvania has been completed for all of the state's electric utilities, and that the company's focus is centered on infrastructure investment, through the replacement of an aging transmission and distribution system coupled with new transmission and smart grid investments.

DETAILED RATING CONSIDERATIONS

-Acquisitions have transformed business strategy, lowered business risk

PPL's acquisition of four large regulated utility systems located in Kentucky and in the UK during 2010 and 2011 have transformed the company's business platform to a broader, more diversified rate regulated business model from one that was highly dependent on the company's commodity business.

We estimate that at least 70% of PPL's consolidated results going forward will be provided by the more predictable, rate regulated businesses from three different jurisdictions, two of which have, in our opinion, an above-average regulatory profile. Specifically, the UK networks business operates under a highly transparent and regulatory framework which we consider to be well-above average and where the tariffs have been approved through March 2015. PPL has owned and operated a networks business in the UK since 1996, and has consistently outperformed its peer companies. PPL's ownership of two Kentucky vertically-integrated utilities, Louisville Gas and Electric Company (LG&E: Baa1 senior unsecured) and Kentucky Utilities Companies (KU: Baa1 senior unsecured) should provide consistent earnings and cash flow under an above average regulated framework where substantial environmental capital investment and growth in rate base assets are expected over the next several years. Together, we estimate that the UK and Kentucky operations alone will provide almost 60% of the company's earnings and cash flow in most years.

In Pennsylvania, PPL's focus is on infrastructure investment. We observe that the PPL Electric Utilities (PPL EU Baa2 senior unsecured) subsidiary received a generally favorable result from a credit perspective in its most recent rate case and expect the company to have substantial capital investment requirements for infrastructure, smart grid and transmission projects. On March 30th,the company filed an electric distribution rate case with the state regulator for recovery of past infrastructure capital investments resulting in a $105 million revenue requirement. Overall, we consider the regulatory environment in the state to be moderately above average when compared to other state regulatory environments. To that end, we understand that the state recently passed a law to allow for a distribution system improvement charge in rates, designed to recover capital project costs incurred to repair, improve or replace aging electric and natural gas distribution systems. The bill also includes a provision that allows utilities to use a fully projected future test year permitting the inclusion of projected capital costs in the rate base for assets that will be placed in service during the future test year. In most years, we expect PPL EU to represent about 10% of consolidated results.

The remaining percentage is expected to be derived from PPL Energy Supply, LLC (PPL Supply: Baa2 senior unsecured), an unregulated generation subsidiary, which owns competitive generation assets in PJM and in the western US. We anticipate financial results for PPL Supply to be weaker in 2012 relative to 2011 due to lower electric demand, lower capacity revenues and continued low natural gas prices, which affects electric energy margins. We observe PPL Supply's recently announced plans to purchase AES Ironwood, a 705-megawatt combined-cycle natural gas-fired power plant in Lebanon, Pa., from The AES Corporation. Total consideration is about $304 million, consisting of a cash purchase price of $87 million, which includes $4.8 million in expected working capital, and about $217 million of net project debt. For the past four years PPL EnergyPlus, LLC, the marketing and trading subsidiary of PPL, has supplied natural gas to the plant in return for securing its full output under a tolling agreement that expires in 2021. Among other things, the acquisition is intended to enable PPL Supply to have greater control over AES Ironwood's operation as the company already relies upon the plant through the tolling agreement.

For more information on PPL's operating subsidiaries, please refer to moodys.com.

-PPL's consolidated credit metrics are strongly positioned for its low investment grade rating.

For the past three years, we calculate that PPL's cash flow (CFO pre-W/C) /debt averaged 17% with the company recording cash flow to debt metrics of 15.5% at 12/31/2011. Similarly, we calculate that cash flow interest coverage averaged 4.5x for the past three years with 4.0x registered in 2011 while retained cash flow to debt averaged 12.7% with 11.4% achieved in 2011. Some of this historical performance can be attributed to the performance at PPL Supply, particularly in 2010, when generation rate caps in Pennsylvania were lifted. We expect PPL's consolidated credit metrics to trend modestly lower due to weaker performance at the commodities subsidiary and a higher contribution from the predictable but lower margin rate regulated operations. Most importantly, in the future we anticipate the company's financial performance to be substantially more resilient to a declining commodity environment given the greater diversity in operations and the increased contributions from more predictable sources of cash flow and earnings.

-Conservative financing approach to recent acquisitions support rating profile

The rating considers the relatively conservative manner in which PPL financed the $13.1 billion in acquisitions during 2010 and2011. Collectively, $4.8 billion of common stock and more than $2.0 billion of convertible equity units was raised. By comparison, PPL's market capitalization currently approximates $16 billion. Overall, Moody's considers this financing approach as indicative of management's conservative financing philosophy.

-Substantial capital investment program anticipated stemming from pending environmental regulations

Beginning in 2012, over the next five years, PPL will embark on a sizeable capital expenditure plan approximating $18.7 billion (annual average of $3.7 billion). By comparison, PPL's capital expenditures averaged $1.6 billion over the previous four year period. While a large portion of this comparison reflects the incorporation of the two acquisitions as well as the impact of lower capital spending in 2009 due to the economy, capital spending for the rate regulated businesses is expected to show material increases. About $1.8 billion is earmarked for investments in FERC regulated transmission projects at PPL EU, including the planned Susquehanna-Roseland line linking Pennsylvania and New Jersey. Also, $6.3 billion of capital expected to be spent at the Kentucky utilities over this five year period including about $3 billion for environmental capital projects. The increased capital spend follows the December 2011 unanimous approval by the Kentucky Public Service Commission of a settlement with KU and LG&E concerning recovery of these capital costs under the state's Environmental Cost Recovery (ECR) mechanism. Under the ECR, KU and LG&E are permitted to recover the costs associated with environmental-related investments, and earn a cash return on the related construction work in progress. The ECR calls for KU to invest $896 million and LG&E to invest $1.4 billion in environmental upgrades to meet recent EPA regulations, and earn an ROE of 10.1% on these investments. KU will install baghouses at the Ghent generating station and a baghouse on unit 3 at the Brown station while LG&E will install scrubbers and baghouses at the Mill Creek generating station and a baghouse for Unit 1 at the Trimble County station. In addition, KU and LG&E will earn a 10.63% ROE on about $370-$400 million of capital investments relating to previously approved projects, and have also agreed to fund certain state assistance programs.

-Structural subordination

PPL's rating reflects the structurally subordinate position of holding company obligations relative to the $15.1 billion of secured and unsecured long-term debt issued at various operating subsidiaries and intermediate holding companies. While PPL does not currently have any funded long-term senior debt obligations, it guarantees nearly $2.6 billion of subordinated debt issued by PPL Capital Funding, Inc. the majority of which was used to finance the 2011 acquisitions.

Liquidity Profile

As a holding company, PPL's primary source of liquidity is the dividends it receives from its operating subsidiaries. At December 31, 2011, PPL had consolidated cash on hand of $1.2 billion of which $379 million was cash held at the PPL Supply level.

On a consolidated basis in 2011, cash flow from operations of approximately $2.5 billion was sufficient to cover about 80% PPL's outlays including approximately $2.5 billion of capital expenditures and approximately $746 million of common stock dividends. Moody's calculates that internal sources of $3.2 billion of cash flow should cover about 70-75% of the company's capital expenditures and dividends in 2012, resulting in negative free cash flow of approximately $1.1 billion. We anticipate elevated levels of negative free cash flow also for 2013 given the increase in the size of the capital budget across the regulated platform and decreased margins stemming from the unregulated supply segment of the business. That said, the company estimates that about 66% of its consolidated capital spend will earn regulated returns subject to minimal or no regulatory lag which should help mitigate the higher outlays over the next several years.

PPL's subsidiaries have external liquidity facilities totaling approximately $4.35 billion in committed facilities to support the short-term liquidity needs of its domestic operations and £960 million to support its UK operations. The facilities have expiry dates ranging from 2013 to 2016. At December 31, 2011, of the $4.35 billion of committed credit facilities to support the domestic operations, $3.2 billion was at PPL Supply, $800 million was committed to the Kentucky utilities ($400 million each for LG&E and KU), and $350 million was at PPL EU. Total availability under the facilities at December 31, 2011 was approximately $3.75 billion, of which $2.6 was available for PPL Supply, $400 million for LG&E, $400 million for KU, and $349 million for PPL EU. KU also has established a $198 million letter of credit facility expiring in April 2014 that is used to support outstanding variable rate tax exempt bonds.

The credit facilities each contain one financial covenant. PPL Supply's credit facilities have a limitation on debt to capitalization at 65% while the PPL EU, LG&E, and KU credit facilities each limit the ratio of debt to capitalization to 70%. All of the subsidiaries were comfortably in compliance with this financial covenant. None of the facilities contain a material adverse change (MAC) clause.

Also, PPL Supply and three of its affiliates, PPL EnergyPlus, PPL Montour and PPL Brunner Island maintain an $800 million secured energy marketing and trading facility, whereby PPL EnergyPlus will receive credit to be applied to satisfy collateral posting obligations related to its energy marketing and trading activities with counterparties participating in the facility. The credit amount is guaranteed by PPL Energy Supply, PPL Montour and PPL Brunner Island. PPL Montour and PPL Brunner Island have granted liens on their respective generating facilities to secure any amount they may owe under their guarantees. The facility is an evergreen five year facility and subject to automatic annual one-year extensions in order to maintain the five year term. There were no secured obligations outstanding under this facility at December 31, 2011.

In addition to the above, PPL Supply maintains a $500 million Facility Agreement expiring June 2017, whereby PPL Supply has the ability to request up to $500 million of committed letters of credit capacity at fees to be agreed upon at the time of each request, based on certain market conditions. At December 31, 2011, there were no letters of credit issued against this facility.

While PPL has no parent level debt outstanding two of its operating subsidiaries have upcoming maturities as follows: PPL Supply's nearest debt maturity occurs in 2013 when $300 million of senior unsecured notes mature in July 2013, followed by $437 million of senior unsecured notes in December 2013. Among the utility subsidiaries, the next debt maturity occurs in November 2015, when $500 million of senior secured notes ($250 million at KU and $250 million at LG&E) are due.

In terms of contingent capital requirements, at December 31, 2011, if the credit contingent provisions underlying all derivative instruments were triggered due to a credit downgrade below investment grade, PPL and PPL Supply would have been required to prepay or post additional collateral of $475 million, respectively.

Rating Outlook

The stable outlook for PPL reflects our view that with the completion of the Kentucky utilities and UK networks acquisitions, PPL's credit quality has been fortified through a material reduction in overall business risk. The stable outlook further reflects our view that the company's position as owner of low-cost, strategically placed, primarily base-load generating assets will remain unchanged in the markets that it operates, even though these assets' cash flow generating capacity is expected to be lower over the next several years. The stable outlook also incorporates a view that the company's large capital investment will be prudently financed, to include if needed, the issuance of common equity. While we anticipate PPL's management to manage through this down cycle at PPL Supply by reducing this subsidiary's debt, to the extent that Moody's were to take a negative rating action at PPL Supply, the probability of a similar rating action occurring at PPL or one of its other subsidiaries has been greatly reduced, given the risk profile transformation that has occurred from the 2011 acquisitions.

What Could Change the Rating - Up

While we view these acquisitions as transforming events which could form the basis for positive rating momentum at PPL, the prospects for the company to be upgraded in the near -term remain somewhat limited in light of the execution risks in integrating these two large acquisitions while confronted at the same time with some of the market-based issues currently facing the company's unregulated business. However, to the extent that the integration process at both properties meets the company's expectation and PPL continues to take actions to lower overall enterprise risk and leverage over time, PPL's rating could be upgraded.

What Could Change the Rating - Down

Similarly, the prospects for downward rating action in the intermediate term are very limited, as Moody's views PPL as being strongly positioned at the current rating category and fairly resilient to withstand downward pressure in the family given the diversified set of rate regulated operations at the company and the reduced exposure to the commodity business.

Other Considerations

Moody's evaluates PPL's financial performance relative to the Regulated Electric and Gas Utilities rating methodology (the methodology) published in August 2009. As depicted in the grid, PPL's indicated rating under the methodology on a historical basis is Baa3 and on a prospective basis is Baa2 as compared to its current Baa3 senior unsecured rating. However, if one factors in a one-notch rating adjustment for PPL being a holding company whose obligations are subordinate to $15.1 billion of senior secured and senior unsecured debt, the indicated prospective rating would be in-line with the actual Baa3 senior unsecured rating.

Rating Factors

PPL Corporation

Regulated Electric and Gas Utilities Industry [1][2]	FY 12/31/2011		Moody's 12-18 month Forward View* As of

				March 2012	
Factor 1: Regulatory Framework (25%)	Measure	Score		Measure	Score
a) Regulatory Framework		Baa			Baa
Factor 2: Ability To Recover Costs And Earn Returns (25%)					
a) Ability To Recover Costs And Earn Returns		Baa			Baa
Factor 3: Diversification (10%)					
a) Market Position (5%)		A			A
b) Generation and Fuel Diversity (5%)		Ba			Ba
Factor 4: Financial Strength, Liquidity And Key Financial Metrics (40%)					
a) Liquidity (10%)		Baa			Baa
b) CFO pre-WC + Interest/ Interest (3 Year Avg) (7.5%)	4.5x	Baa		3.7x - 3.9x	Baa
c) CFO pre-WC / Debt (3 Year Avg) (7.5%)	17.0%	Baa		15% - 18%	Baa
d) CFO pre-WC - Dividends / Debt (3 Year Avg) (7.5%)	12.7%	Baa		9% - 12%	Baa
e) Debt/Capitalization (3 Year Avg) (7.5%)	55.5%	Ba		55% - 60%	Ba
Rating:					
a) Indicated Rating from Grid		Baa2			Baa2
b) Actual Rating Assigned		Baa3			Baa3

* THIS REPRESENTS MOODY'S FORWARD VIEW; NOT THE VIEW OF THE ISSUER; AND UNLESS NOTED IN THE TEXT DOES NOT INCORPORATE SIGNIFICANT ACQUISITIONS OR DIVESTITURES

[1] All ratios are calculated using Moody's Standard Adjustments. [2] As of 12/31/2011(LTM); Source: Moody's Financial Metrics

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"wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001.

Notwithstanding the foregoing, credit ratings assigned on and after October 1, 2010 by Moody's Japan K.K. ("MJKK") are MJKK's current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities. In such a case, "MIS" in the foregoing statements shall be deemed to be replaced with "MJKK". MJKK is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO.

This credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be dangerous for retail investors to make any investment decision based on this credit rating. If in doubt you should contact your financial or other professional adviser.

FitchRatings

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Fitch Affirms PPL's IDR at 'BBB'; Lowers Electric Utilities Preferred Stock to 'BBB'

Ratings Endorsement Policy
20 Mar 2008 10:28 AM (EDT)

Fitch Ratings-New York-20 March 2008: Fitch Ratings has affirmed the 'BBB' Issuer Default Ratings (IDR) and other debt ratings of PPL Corp. and its subsidiaries as shown below. In addition, Fitch has lowered the preferred stock ratings of PPL Electric Utilities Corp. to 'BBB' from 'BBB+' and assigned short-term IDR ratings of 'F2' to PPL Corp, PPL Capital Funding Corp. and PPL Electric Utilities Corp. The lower preferred stock rating reflects its junior position in the capital structure and does not reflect any change in credit quality. The Ratings Outlook for each entity remains stable.

Fitch has affirmed the following ratings:

PPL Corp
--IDR at 'BBB'.

PPL Capital Funding Inc.
--IDR at 'BBB';
--Senior Unsecured debt at 'BBB';
--Junior Subordinated debt at 'BBB-'

PPL Energy Supply, LLC
--IDR at 'BBB';
--Short-term IDR at 'F2';
--Senior Unsecured debt at 'BBB+';
--Commercial Paper at 'F2'.

PPL Electric Utilities Corp.
--IDR at 'BBB';
--Secured debt at 'A-';
--Preference Stock at 'BBB'
--Commercial paper at 'F2'.

Fitch lowers the following rating:

PPL Electric Utilities Corp.
--Preferred Stock to 'BBB' from 'BBB+'.

Fitch assigns the following ratings:

PPL Corp
--Short-term IDR 'F2'.

PPL Capital Funding Corp.
--Short-term IDR 'F2'.

PPL Electric Utilities Corp.
--Short-term IDR 'F2'.

The consolidated ratings of PPL Corp. (PPL) reflect the substantial earnings and cash flow derived from regulated electric distribution operations and committed energy sales, including a full requirements supply contract between subsidiaries PPL Energy Supply, LLC (PPLES) and PPL Electric Utilities Corp. (PPLEU) that extends through 2009, the competitive advantage of the company's largely coal and nuclear generating fleet and a sound credit profile that supports the existing ratings. A substantial improvement in earnings and cash flow is expected in 2010, when the below market power supply contract between PPLEU and PPLES expires and the available energy is sold at prevailing market rates. The ratings also reflect the large capital requirements of PPLES for pollution control facilities that extend through 2009. The primary credit concerns are the potential for legislation that alters the regulatory process in Pennsylvania following the expiration of rate caps in 2009, the exposure to potentially stricter environmental regulations addressing greenhouse gas (GHG) emissions and commodity price exposure in the event of an extended nuclear or coal plant outage. Plans for a share buyback program in 2009, financed with a combination of cash flow and subsidiary debt, ahead of the expected rise in 2010 earnings and cash flow is also a potential concern.

The ratings of PPLES reflect the company's sound credit profile, the favorable competitive position of it's largely coal and nuclear generating fleet and the improving market fundamental in the PJM region where the majority of PPLES' assets are located. The ratings are further supported by expectations of significant improvement in earnings and cash flow in 2010 when the cap on affiliate PPLEU's generation supply costs and below market supply contract with PPLES expire. The improved cash flow should mitigate the added risk of increased merchant sales. PPLES has already contracted for a portion of PPLEU's supply needs in 2010 at prices that, on average, are approximately double the price in the existing supply contract that expires Dec. 31, 2009.

PPLES will have the opportunity for additional hedges at then prevailing market prices in four upcoming solicitations for power, two per year, to be conducted by PPLEU in 2008 and 2009. Although legislative changes in the scheduled transition to market based rates remains a possibility, the most likely risk to PPLES is a slower than expected rate of earnings and cash flow improvement rather than a decline in credit quality. The risk of an extended coal or nuclear outage remains the primary credit concern. With more than 50% of generation derived from coal-fired facilities, the company is also exposed to higher costs from the expected implementation of carbon regulations within the next several years. However, even with higher environmental compliance costs, gross margin and cash flow should improve meaningfully from current levels due to the price differential in expiring supply contracts and forward market prices. In addition, higher environmental compliance costs are likely to drive up power prices.

The ratings of PPLEU are consistent with the company's solid financial profile and also reflect the relative predictability of its earnings and cash flow due in large measure to the absence of any meaningful commodity exposure and a reasonable regulatory environment in Pennsylvania. A full requirements electricity supply contract with affiliate PPL EnergyPlus satisfies the company's provider of last resort obligation (POLR) through 2009 and eliminates commodity price exposure. After 2009, when generation rate caps expire, the market structure in Pennsylvania is uncertain and subject to legislative interference that could undermine full recovery of power procurement costs. The inability to fully recover power supply costs would, in all likelihood, have an adverse affect on ratings. Current ratings assume the cost of procuring power to meet PPLEU's POLR obligations after 2009 will be passed through to customers.

Holders of PPLEU's senior secured bonds also benefit from a package of structural enhancements and bond covenants that further reduce financial risk. The bond covenants restrict dividend payments to the parent if cash from operations interest coverage falls below 1.5 times (x), and limits the issuance of new debt or a merger if either would result in a ratings downgrade. Other structural enhancements include amendments to the Articles of Incorporation and By-Laws that effectively separate the accounts and assets of PPLEU from its parent PPL Corp. and its other affiliates and greatly reduce the likelihood of a consolidation of PPLEU in the case of a parent company or affiliate bankruptcy.

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Global Power
US and Canada
Credit Analysis

PPL Corporation

And Subsidiary PPL Capital Funding Inc.

Ratings

	Current Rating
PPL Corp.	
IDR	BBB
Short-Term IDR	F2
PPL Capital Funding Inc.	
IDR	BBB
Senior unsecured	BBB
Subordinated debt	BBB–
Short-Term IDR	F2

Outlook

Stable

Financial Data[a]

PPL Corporation
($ Mil.)

	12/31/07	12/31/06
Revenue	6,166	5,794
Gross Margin	4,540	4,058
Cash Flow from Operations	1,271	1,475
Operating EBITDA	2,107	1,873
Total Debt	9,942	7,286
Total Capitalization	13,180	12,576
ROE (%)	19.0	17.6
Capex/Depreciation (x)	3.7	3.1

[a]Adjusted to exclude interest, principal payments and amortization related to utility tariff bonds.

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Related Research

- *Credit Analysis, PPL Energy Supply, LLC, dated April 23, 2008.*
- *Credit Analysis, PPL Electric Utilities Corporation, dated April 23, 2008.*

Rating Rationale

- The ratings of PPL Corporation (PPL) are driven by the sound financial condition of its two core subsidiaries, PPL Energy Supply, LLC (PPLES), a competitive wholesale power generator, and PPL Electric Utilities Corporation (PPLEU), a rate-regulated transmission and distribution company.
- The ratings of PPL's financing conduit, PPL Capital Funding Inc. (PPL Cap Funding), are based on an unconditional guarantee of its obligations by PPL.
- The combination of PPLES' substantial hedge position and the absence of commodity exposure in PPLEU's regulated operations are expected to produce stable earnings and cash flow through 2009.
- The ratings also consider the favorable competitive position of subsidiary PPLES's largely coal and nuclear generating fleet and the improving market fundamentals in the mid-Atlantic and Northeast regions, where the majority of the company's generating assets are located. The low-cost coal and nuclear facilities should achieve a high level of dispatch under most market conditions, including both high and low gas scenarios.

Key Rating Drivers

- Consolidated earnings and cash flow are expected to increase meaningfully in 2010 with the expiration of a below-market-supply contract between PPLES and affiliate PPLEU.
- The expected financial improvement could be offset, in part, by the final rules established in Pennsylvania for the recovery of PPLEU's power supply costs, which are expected to rise substantially coincident with the expiration of generation rate caps and the supply contract with PPLES beginning in 2010. (See the Utility Regulatory Issues section on page 4).
- How management chooses to deploy the free cash flow expected after 2009 could also impact credit quality and ratings, with aggressive shareholder initiatives a particular concern.
- Credit quality and ratings will also be affected by the company's ability to secure adequate utility tariff increases to recover infrastructure investments and higher operating costs.
- Maintaining strong coal and nuclear operations is critically important to maintaining credit quality and ratings.
- Due to PPLES' fleet of coal-fired generation, exposure to potentially stricter environmental regulations (carbon dioxide and other greenhouse gas emissions) could reduce future energy margins.

Recent Events

Pennsylvania Rate Mitigation Plan

On April 9, 2007, the Pennsylvania Public Utility Commission (PUC) indefinitely postponed a decision on PPLEU's proposed rate mitigation plan (RMP). The RMP is designed to soften the sharp rate increase expected in 2010 when the cap on generation supply costs expires and customers will be charged market-based rates for electricity default service. Without a rate mitigation plan, the potential for a less favorable legislative solution is heightened. Previously, on March 11, 2008, the PUC Administrative Law Judge (ALJ) recommended approval of the RMP following a unanimous settlement agreement among the parties to the case. Under the RMP, originally filed by PPLEU on Nov. 30, 2007, the higher generation costs would be phased in over five years beginning July 1, 2008, one and a half years ahead of the expiration of rate caps, and extend through 2012.

Management has indicated that under the RMP, rates for residential customers would increase between 6% and 7% annually, assuming prices in the upcoming power solicitations are similar to the prices in the previous solicitations, compared with an increase of approximately 35% in 2010 without a phase-in. As agreed to in the settlement, participation in the mitigation plan is optional. Customers who opt in would receive interest on additional payments made in 2008 and 2009 ahead of the expiration of the rate caps. Beginning in 2010 and continuing through 2011, the pre-payments, including interest, would be credited to customer bills. Experience in other regulatory opt-in-plans suggests that a very small percentage of customers are likely to take an affirmative action to opt in to the plan.

Asset Sales

PPLES completed a number of non-core asset sales in 2007, including all of its Latin American distribution businesses as well as its telecommunications operations. The asset sales are neutral for credit quality. Dividend distributions from these businesses were modest, approximately $30 million annually, and Fitch treated the debt as non-recourse to PPLES. Sale proceeds of $898 million were used to fund the repurchase of approximately $712 million of common stock.

Proposed Nuclear Plant

Management recently announced plans to submit an application with the nuclear Regulatory Commission (NRC) by the end of 2008 for a Combined Construction and Operating License (COL) to construct and operate a new nuclear generating unit at the site of the company's existing Susquehanna nuclear station in Berwick, Pa. Management has not yet decided to go forward with construction; however, filing the COL preserves the option to construct a plant in the future. The plan to pursue a COL has no immediate effect on credit quality, which ultimately will be determined by the cost, financing plan and structure of any transaction. PPL has contracted with UniStar Nuclear Energy, a joint venture of Constellation Energy and Electricite de France (EDF), to prepare the COL application, which will be based on AREVA's U.S. Evolutionary Power Reactor (EPR) design. Management indicated it would likely only proceed to construction in a joint-venture arrangement.

PPLEU Rate Increase

On Dec. 6, 2007, the Pennsylvania PUC approved a $55 million (1.7%) rate increase for PPLEU effective Jan. 1, 2008, following its adoption of a rate settlement agreement. The settlement agreement is constructive for bondholders and indicates the continuation of reasonable regulation for PPLEU. The $55 million rate increase amounted to approximately two-thirds of the company's $88 million request, and importantly, used a relatively current 2007 test year with some forward adjustments. The agreement is silent on return on equity (ROE) and other traditional rate case issues. The rate increase reflects rate base additions for infrastructure improvements and recognition of expenses associated with proposed energy efficiency and economic development programs. The company's last rate case was decided in January 2005, when PPLEU increased distribution and transmission rates by $191 million (7.1%) premised on a 10.75% ROE.

2010 Power Procurement Plan

PPLEU has received PUC approval to procure power to serve default service customers in 2010 through a series of solicitations from power generators and marketers in 2007, 2008 and 2009. The procurement plan, which includes two solicitations annually in each of the three years, is intended to average power supply costs over the three year period and to avoid purchasing all of the company's supply needs at a single point in time. Based on the three solicitations conducted to date, residential rates would increase approximately 35% in 2010. A state-wide plan for 2011 and beyond is still being formulated by the state legislature. (See the Utility Regulatory Issues section on page 4 for more information).

Liquidity and Debt Structure

PPL relies on dividends and distributions from operating subsidiaries PPLES and PPLEU to fund the interest and principal payments of its financing conduit, PPL Cap Funding, as well as its common stock dividend. Management does not plan to issue any new debt at PPL Cap Funding other than hybrid securities. All other external financing will be raised at the operating subsidiaries. Maturing PPL Cap Funding debt will be retired with new PPLES debt. At year-end 2007, PPLES had cash and equivalents of $355 million, and PPLEU had $33 million. PPLES also had short-term investments of $102 million.

The domestic operating subsidiaries each maintain bank credit facilities, as shown in the table below. In addition, UK subsidiaries Western Power Distribution (South West) plc and Western Power Distribution Holdings Limited have credit facilities of $314 million and $308 million, respectively. Each of the domestic multi-year credit facilities has a one-year term out provision and financial covenants limiting the maximum debt-to-capital ratio of 70% for PPLEU and 65% for PPLES. As of Dec. 31, 2007, the debt ratios of PPLEU and PPLES, calculated in accordance with the credit agreements, were 47% and 36%, respectively.

PPLES debt maturities include $57 million in 2008 and $500 million in 2011 that will most likely require external financing. PPLES' 2008 debt maturity reflects an in-the-

Domestic Credit Facilities — PPL Corporation

(As of Dec. 31, 2007)

	Committed Capacity	Expiration Date	Borrowed	LOC Issued	Available Capacity
PPL Electric Utilities Corporation	200	May 2012	—	—	200
PPL Energy Supply, LLC	3,400	June 2012	—	683	3,217
PPL Energy Supply, LLC	300	March 2011	—	—	—
PPL Energy Supply, LLC[a]	300	March 2009	—	—	—
Total Domestic Credit Facilities	4,200			683	3,417

[a]Credit facility was increased from $200 million in March 2008.
Source: PPL 10-K for the period ended Dec. 31, 2007.

money convertible note due 2023 that requires the company to settle the principal in cash and the premium in stock. New debt at PPLES is also the most likely source of funds to retire $201 million of PPL Cap Funding debt in 2009.

PPLEU debt maturities of $90 million (tax exempt) in 2008 and $485 million (secured) in 2009 will require capital market access. There are no debt maturities between 2010 and 2012. The last of the company's utility tariff or transition bonds mature in 2008, but the company will continue to collect stranded costs of approximately $350 million in 2009, providing an incremental source of cash.

Utility Regulatory Issues

PPLEU's generation rate cap period ends Dec. 31, 2009, and early indications are that bundled rates will rise approximately 35% in 2010 to reflect the higher power costs. Not unexpectedly, a bill to extend rate caps has been introduced in the Pennsylvania House of Representatives that is similar to legislative developments that occurred in Illinois and Maryland which led to severe downgrades. At this point, there does not appear to be great support for the legislation. Fortunately, the Pennsylvania PUC has acted more constructively and has adopted rules that stipulate distribution utilities may procure power through a portfolio of options, including competitive auctions, requests for proposal and spot market purchases.

The PUC rules stipulate that all procurement costs will be recovered from customers and will be adjusted quarterly for customers with less than 500 kilowatt (kW) of demand and monthly for customers with 500 kW or more of demand. Customers will have the option to participate in a phase-in plan if generation cost increases exceed 25%. The Pennsylvania procurement plans will be company-specific rather than a single state-wide solution.

Non-Utility Generation Portfolio

PPLES subsidiary, PPL Generation, LLC, owns or controls 11,418 megawatts (MW) of domestic electric power generation capacity. Planned upgrades to existing facilities are expected to add approximately 331 MW by 2012, including 143 MW of additional nuclear capacity, 32 MW of coal-fired capacity and 156 MW of hydro. PPL Energy Plus, LLC (PPL Energy Plus) markets the power produced by PPL Generation. Approximately 86% of generation output in 2007 was used to supply electricity to affiliate PPL Electric Utilities Corp. (PPLEU) under a below-market contract that extends through 2009. PPL EnergyPlus also has contracts to supply Northwestern Corp. and other counterparties and, on average, approximately 90% of expected generation is contracted through 2009. Thereafter, Fitch expects PPLES will continue to be a major supplier to PPLEU, either directly or indirectly, but contract duration is likely to be shorter, in the one- to three-year range.

Baseload coal and nuclear resources account for the majority of the company's generation output, which results in a relatively high level of dispatch in low gas scenarios as well as higher ones. In 2007, approximately 56% of energy was generated from coal-fired stations, 31% nuclear, 5% oil/gas and 8% hydro. About 80% of the installed generating capacity is located in Pennsylvania and 11% in Montana, with the remainder in Illinois (5%), Connecticut (2%), New York (1%) and Maine (1%).

Environmental Exposure

With more than 50% of electric generation derived from coal-fired facilities, PPLES is likely to be affected by the expected implementation of stricter carbon regulations within the next several years. The impact on cash flow and credit quality is uncertain;

however, the substantial price differential in expiring supply contracts and forward market prices provides PPLES with a large cushion to absorb the potentially higher costs, particularly in the eastern generating fleet, which accounts for more than 70% of the coal-fired capacity. Tight power supplies in the mid-Atlantic region and the company's recent investment in scrubbers also bodes well for the continued operation of the eastern coal plants. The heat rates of the eastern plants ranges between 9,400 British thermal units per kilowatt hour (BTU per kWh) to 9,600 BTU per kWh, compared with about 10,900 BTU per kWh in the western fleet. In the event of a carbon limit, cap and trade, or fees, the lower heat rate eastern plants are likely to remain viable.

2010 Power Sales

The existing power supply contract with PPLEU is well below forward market prices, and its expiration on Dec. 31, 2009 is likely to result in substantially higher generation margins and a corresponding improvement in earnings and cash flow. In recent competitive bid solicitations conducted by PPLEU for a portion of its power needs in 2010, the average retail price of power for residential customers was $105.22 per megawatt-hour (MWH) compared to approximately $50 per MWH in the existing PPLEU contract. If PPLES were able to re-price all of its existing sales to PPLEU (approximately 37.9 million kWh) at the average price of the competitive solicitations, Fitch estimates revenue would increase roughly $4 billion.

Nuclear Operations

PPL Energy Supply has a 90% interest in and is the operator of each of the two Susquehanna Nuclear units. The company's 90% share amounts to 2,124 MW. The two units have a reasonably good operating record. Unit 1 had a capacity factor of 86.2% in 2006, and Unit 2 had a capacity factor of 92.5%, compared with the 2006 industry average of 89.6%. Over the three-year period 2004–2006, the average capacity factors for Units 1 and 2 were 87% and 93.7%, respectively. In 2006, PPLES applied to the NRC for 20-year license renewals for each of the Susquehanna units to extend their expiration dates from 2022 to 2042 for Unit 1 and from 2024 to 2044 for Unit 2.

The latest estimate of decommissioning costs for PPL Energy Supply's 90% share of the Susquehanna Nuclear Station is approximately $936 million, measured in 2002 dollars (based on a 2002 site-specific study). As of Dec. 31, 2007, the fair market value of the external decommissioning trust fund was $555 million. Although the final decommissioning cost upon retirement of the two units is likely to exceed the 2002 estimate, given a remaining life of 34 years and 36 years, respectively, for Susquehanna Units 1 and 2 (including requested license extension), investment returns plus scheduled deposits should be sufficient to meet the eventual cost. However, to the extent the actual costs for decommissioning exceed the amounts in the nuclear decommissioning trust fund, PPLES would be obligated to fund 90% of the shortfall. In accordance with PPLEU's 1998 restructuring agreement, approximately $130 million of decommissioning costs are being collected from rate payers over the 11-year rate recovery period ending Dec. 31, 2009. Under the power supply agreement between PPLEU and PPLES, these revenues are passed on to PPL Energy Plus and deposited in the external nuclear decommissioning trust fund.

Capital Expenditures

PPLES Capital Expenditures

PPLES is entering year three of a four-year construction program to add scrubbers at five coal-fired generating units. Projected PPLES capital expenditures of $5.4 billion over the next five years also include approximately $364 million between 2009 and 2012 for a 125 MW expansion of the Holtwood hydroelectric plant and about $90 million

Capital Expenditures — PPL Energy Supply, LLC
($ Mil.)

	Actual 2007	2008	2009	2010	2011	2012	2007–2012 Total
Generating Facilities	313	376	448	474	349	249	1,896
Transmission and Distribution	340	298	327	336	343	351	1,655
Environmental	587	461	169	57	129	45	861
Nuclear Fuel	82	102	162	173	171	173	781
Total	1,359	1,305	1,136	1,070	1,021	847	5,379

Source: 10-K for the period ended Dec. 31, 2007.

to pursue a COL application for a new nuclear plant. Expenditures peaked at $1.4 billion in 2007 and are forecasted at $1.3 billion in 2008. Thereafter, as shown in the table above, forecasted expenditures decline steadily through 2012. Internal cash generation after dividends is expected to provide approximately two-thirds of expenditures, with the remainder financed with debt and hybrid securities. Parent PPL has no plans to issue common stock.

PPLEU Capital Expenditures

PPLEU capital expenditures are estimated to aggregate $2 billion over the next five years, compared with approximately $1.1 billion over the prior five-year period. Approximately 50% of the projected expenditures occur in 2011 and 2012, reflecting plans to construct a new 130 mile 500 kilovolt (kv) transmission line between the Susquehanna nuclear station and the Roseland substation in New Jersey. The line has been identified by PJM Interconnection as essential to long-term reliability of the mid Atlantic electricity grid, which should qualify PPLEU for FERC's incentive ROE. Total cost of the project is estimated to be approximately $1 billion, with PPLEU's share between $300 and $500 million. Expenditures of approximately $320 million are included in the company's forecast. The investment is subject to Federal Energy Regulatory Commission (FERC) jurisdiction, whose rules with regard to construction work in progress (CWIP) and the level of allowed returns are constructive for investors.

PPLEU and Public Service Electric and Gas Co. (PSE&G) filed a joint petition for a declaratory order with the FERC requesting approval of the following transmission rate incentive for the Susquehanna-Roseland transmission line: 1) an additional 1.5% ROE above the FERC allowed base rate; 2) recognition of CWIP in rate base; 3) recovery of all costs if the project is cancelled; and 4) an additional 0.5% ROE for membership in PJM. FERC has typically allowed the incentive ROEs and CWIP for transmission projects deemed necessary by an RTO. The ability to earn a current cash return on this investment should offset the financial stress and is considered by Fitch to be a credit positive.

International Delivery Operations

PPLES, through its subsidiary PPL Global LLC (PPL Global), owns Western Power Distribution Holdings Limited (WPD), the parent company of two electric distribution companies in the United Kingdom that collectively serve approximately 2.6 million customers. The companies include Western Power Distribution (South West) plc (rated 'BBB+' with a Stable Outlook), serving 1.5 million customers in southwest England, and Western Power Distribution (South Wales) plc (rated 'BBB+'/Stable), serving 1.1 million customers in Wales.

The UK operations are self-funding, and management has no plans to provide any additional capital or to acquire new properties. PPLES repatriates approximately $30 million–$35 million annually in dividends. Debt at the UK subsidiaries totals approximately $2.3 billion. The debt is non-recourse to PPL, and Fitch excludes both the debt and earnings of the UK operations from its rating assessment.

During 2007, PPL Global completed the sale of all of its Latin American distribution businesses located in Chile (Emel), El Salvador (Del Sur) and Bolivia (Elfec S.A.) for $851 million, including a pretax gain of $399 million. The asset sales are neutral for credit quality, since Fitch treated the debt as non-recourse to PPL.

Company Description

PPL is an energy and utility holding company engaged through its two core subsidiaries, PPLES and PPLEU. in the generation and marketing of electricity in the Northeastern and Western United States, and the delivery of electricity in Pennsylvania and the United Kingdom. The UK distribution business, WPD, is structured as an indirect subsidiary of PPLES. Other PPL subsidiaries include PPL Gas Utilities Corp., a natural gas and propane delivery business, and PPL Cap Funding, a financing conduit for PPL's non-regulated businesses. During 2007, PPL disposed of all of its Latin American electric delivery businesses in Chile, El Salvador and Bolivia, leaving the UK electric distribution business as the only remaining off-shore investment. Management has also announced its intention to sell the natural gas and propane business.

In 2007, as shown in the table to the right, PPLES accounted for approximately 58% of consolidated net income, WPD 31% and the Pennsylvania delivery segment 11%. Excluding WPD, PPLES accounts for approximately 74% of net income, compared with 26% from PPLEU. Beginning in 2010, the contribution of PPLES is expected to increase substantially due to the expiration of both PPLEU's generation rate cap and a full requirements supply contract between the utility and PPLES.

Estimated Contribution from Continuing Operations by Business Segment for 2007

(%)

	Operating Income	EBITDA	Net Income
PPLES	55	52	58
WPD	25	27	31
PPLES Consolidated	80	78	89
Pennsylvania Delivery	20	22	11
Total Regulated	45	49	42

Source: 10-K for the period ended Dec. 31, 2007 and Fitch estimates.

Financial Summary — PPL Corporation

($ Mil., Years Ended Dec. 31)

	2007	2006	2005	2004	2003
Fundamental Ratios (x)					
Funds from Operations (FFO)/Interest Expense	3.8	4.2	4.0	3.9	3.8
Cash Flow from Operations (CFO)/Interest Expense	3.5	4.6	3.7	4.0	3.8
Debt/FFO	4.8	5.5	5.4	5.4	6.5
Operating EBIT/Interest Expense	3.2	3.6	3.0	3.1	3.2
Operating EBITDA/Interest Expense	4.1	4.6	3.9	4.1	4.2
Debt/Operating EBITDA	3.3	3.9	4.1	3.9	4.4
Common Dividend Payout (%)	35.6	47.3	51.2	42.6	35.4
Internal Cash/Capital Expenditures (%)	47.5	75.7	92.7	125.0	103.4
Capital Expenditures/Depreciation (%)	376.9	336.5	211.0	185.5	205.7
Profitability					
Revenues	6,158	5,794	5,380	5,446	5,220
Net Revenues	4,532	4,058	3,839	3,765	3,569
Operating and Maintenance Expense	1,373	1,266	1,318	1,237	1,177
Operating EBITDA	2,099	1,873	1,607	1,713	1,646
Depreciation and Amortization Expense	451	419	392	407	383
Operating EBIT	1,648	1,454	1,215	1,306	1,263
Gross Interest Expense	513	406	408	421	390
Net Income for Common	1,288	865	678	698	734
Operating Maintenance Expense % of Net Revenues	30.3	31.2	34.3	32.9	33.0
Operating EBIT % of Net Revenues	36.4	35.8	31.6	34.7	35.4
Cash Flow					
Cash Flow from Operations	1,266	1,476	1,116	1,243	1,102
Change in Working Capital	(178)	161	(91)	11	(5)
Funds from Operations	1,444	1,315	1,207	1,232	1,107
Dividends	(459)	(409)	(349)	(299)	(287)
Capital Expenditures	(1,700)	(1,410)	(827)	(755)	(788)
Free Cash Flow	**(893)**	**(343)**	**(60)**	**189**	**27**
Net Other Investment Cash Flow	114	9	(39)	(48)	40
Net Change in Debt	(170)	277	(340)	(863)	(460)
Net Change in Equity	(680)	266	37	596	426
Capital Structure					
Short-Term Debt	92	42	214	42	56
Adjusted Long-Term Debt	6,901	7,251	6,302	6,601	7,130
Adjusted Total Debt	**6,993**	**7,293**	**6,516**	**6,643**	**7,186**
Adjusted Equity	6,238	5,471	4,512	4,333	3,351
Adjusted Total Capital	**13,231**	**12,764**	**11,028**	**10,976**	**10,537**
Adjusted Total Debt/Total Capital (%)	52.9	57.1	59.1	60.5	68.2
Adjusted Equity/Total Capital (%)	47.1	12.9	40.9	39.5	31.8

Operating EBIT – Operating income before state and federal income tax expense. Operating EBITDA – Operating income before federal and state income tax expense plus depreciation and amortization. Note: Numbers may not add due to rounding. Numbers are adjusted to exclude interest, principal payments and amortization on utility tariff bonds.
Source: Financial data obtained from SNL Energy Information System, provided under license by SNL Financial, LC of Charlottesville, Va.

Global Power
U.S. and Canada
Credit Analysis

PPL Corporation

PPL Capital Funding, Inc.

Ratings

Security Class	Current Rating
PPL Corporation	
Issuer Default Rating	BBB
PPL Capital Funding, Inc.	
IDR	BBB
Senior Unsecured	BBB
Subordinated Debt	BBB–
Short-Term IDR	F2

Outlook

Stable

Financial Data

PPL Corporation
($ Mil.)

	LTM Ended 9/30/09	Year Ended 2008
Revenue	8,282	7,729
Gross Margin	4,016	4,458
Cash Flow from Operations	1,618	1,314
Operating EBITDA	1,948	1,828
Total Debt	7,508	8,155
Total Capitalization	13,807	13,913
ROE (%)	9.5	17.5
Capex/ Depreciation (x)	2.8	3.1

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Related Research

- *PPL Electric Utilities Corp., Nov. 18, 2009*
- *PPL Energy Supply, LLC, Nov. 18. 2009*

Rating Rationale

- The ratings of PPL Corporation (PPL) and PPL Capital Funding, Inc. (PPL Capital Funding) were affirmed by Fitch Ratings on Oct. 28, 2009.
- PPL's ratings are supported by the cash flow and earnings of its two core subsidiaries, PPL Energy Supply, LLC (PPLES) and PPL Electric Utilities Corp. (PPLEU); sufficient liquidity; and the expected financial improvement of PPLES' earnings and cash flow beginning in 2010.
- The ratings of PPL Capital Funding are based on an unconditional guarantee of its obligations by PPL.
- The ratings also reflect the beneficial impact of approximately $451 million of debt retirements in 2009 (interest savings of $24 million), including a tender offer for $250 million of PPLES debt and the retirement of $201 million of PPL Capital Funding debt with cash, and work force reductions that are projected to save $25 million annually.
- The financial improvement expected to begin in 2010 is driven by the expiration of a below-market power supply contract between subsidiaries PPLES and PPLEU. PPLES has entered into replacement hedges that are approximately 33% above the price in the expiring contract, but below Fitch's previous forecast.
- The future level of electricity demand and power prices and the uncertain cost and impact on gross margins of meeting potential environmental regulations addressing greenhouse gas (GHG) emissions are among the primary credit concerns affecting PPL's unregulated wholesale power supply business. PPLES has a high concentration of coal-fired generation, and its cash flows and asset values could be adversely affected by limits on carbon emissions.
- The ability of regulated utility PPLEU to receive adequate base rate treatment for its electric distribution business in light of the large increases in power procurement costs is also a credit concern. PPLEU intends to file a distribution rate case in early 2010, with new rates to be effective in early 2011. Based on the recent auction for a portion of PPLEU's 2011 provider of last resort (POLR) obligation, the prospective distribution rate increase should be offset, in part, by a reduction in generation charges. On average, prices in the first two auctions were approximately 8% below the average price in the 2010 procurement.

Key Rating Drivers

- The competitive wholesale power business is expected to account for approximately 79% of 2009 consolidated earnings.
- Baseload capacity is substantially hedged in 2010 and 2011 and to a lesser extent in 2012, which protects gross margins against further deterioration in forward energy prices.
- Re-pricing of an expiring below market contract substantially improves 2010 earnings and cash flow.
- PPL has sufficient liquidity to manage its collateral and working capital needs.

- A majority of electric production is derived from baseload coal and nuclear facilities that are likely to be dispatched in most market conditions.
- Capacity pricing in PJM provides an incremental revenue source.
- PPLES faces an uncertain cost of meeting potential new environmental regulations to limit carbon emissions.
- PPLEU bears no commodity price risk.
- PPLEU provides a relatively stable source of cash flow.
- Timely rate increases are key to the credit quality of PPLEU, particularly in light of large increases in power procurement costs.
- Weakening trends in unit sales of electricity affect both PPLEU and PPLES.

Recent Events

Cost Reductions

In February 2009, management announced a cost reduction initiative that will eliminate approximately 200 management and staff positions, about 6% of the company's work force. The reductions are expected to save approximately $25 million annually.

Debt Retirements

In March 2009, PPL Capital Funding retired the entire $201 million of 4.33% notes upon maturity with available cash. Also in March 2009, PPLES completed tender offers to purchase $250 million of certain outstanding senior notes at a discount to par. The company accepted tender offers for $100 million of its 6% senior notes due 2036 for $77 million and $150 million of its 6.2% notes due 2016 for $143 million. Interest savings amount to approximately $15 million annually.

Nuclear Uprate

PPLES successfully completed a 54-MW uprate of the Susquehanna nuclear plant in 2009. The uprate provides additional capacity that should boost revenue with no incremental operating cost.

Asset Sales

On Nov. 2, 2009, PPLES completed the sale of five hydro plants in Maine, aggregating 23 MW to Black Bear Hydro Partners, LLC, an affiliate of ArcLight Partners, for $81 million. Separately, in May 2009, PPLES agreed to sell its Long Island generation business for approximately $135 million. The sale includes a 79.9-MW gas-fired plant in Brentwood, NY and a 79.9-MW oil-fired plant in Shoreham, NY. The sale is expected to close late in 2009 or the first quarter of 2010. Neither the Maine nor Long Island assets are core to the company's concentration of assets in PJM and the northwest.

Credit Facility

In September 2009, PPLES renewed its 364-day bank credit facility and increased the borrowing limit to $400 million from $385 million, and in March 2009, PPLEU renewed its 364-day bilateral credit facility with Scotia Bank at $200 million, down from $300 million.

Scrubbers

The Brunner Island 3 scrubber went into service during the second quarter. Brunner Island units 1 and 2 scrubbers are expected to be placed in service in later this year, completing the scrubber installations.

Liquidity and Debt Structure

PPL relies on dividends and distributions from operating subsidiaries PPLES and PPLEU to fund the interest and principal payments of its financing conduit PPL Capital Funding as well as its common stock dividend. Management does not plan to issue any new debt at PPL Capital Funding other than hybrid securities. All other external financing will be raised at the operating subsidiaries. At Sept. 30, 2009, PPLES had cash and equivalents of $506 million and PPLEU $164 million.

The domestic operating subsidiaries each maintain bank credit facilities, as shown in the table below. In addition, U.K. subsidiaries Western Power Distribution (South West) plc and Western Power Distribution Holdings Limited have committed credit facilities of GBP213 million and GBP150 million, respectively. Each of the domestic multi-year credit facilities has a one-year term-out provision and financial covenants limiting the maximum debt to capital ratio of 70% for PPLEU and 65% for PPLES. As of Sept. 30, 2009, the debt ratios of PPLEU and PPLES were well within the financial covenants.

PPL Domestic Credit Facilities

($ Mil., As of Sept. 30, 2009)

	Committed Capacity	Expiration Date	Borrowed	LOC Issued	Available Capacity
PPL Electric Utilities Corp.	190	May 2012	—	5	185
PPL Electric Utilities Corp.[a]	150	July 2010	—	N.A.	150
PPL Energy Supply, LLC	3,225	June 2012	285	455	2,485
PPL Energy Supply, LLC[b]	300	March 2011	N.A.	230	70
PPL Energy Supply, LLC[c]	400	Sept 2010	—	—	400
PPL Energy Supply, LLC[b,c]	200	March 2010	N.A.	4	196
Total Domestic Credit Facilities	**4,465**		**285**	**694**	**3,486**

[a]Asset-backed A/R CP program. [b]LOCs only. [c]364-day facility. N.A. – Not applicable.
Source: PPL Corporation 10-Q for the period ended Sept. 30, 2009.

Debt maturities are manageable. The next PPLES debt maturity is $500 million in 2011 followed by $300 million in each of the years 2013, 2014, and 2015. PPLEU has no debt maturities between 2010 and 2012; $500 million matures in 2013. The last of PPLEU's utility tariff (transition) bonds matured in 2008, but the company will continue to collect competitive transition charges (CTC) of approximately $350 million in 2009.

Background

PPL is an energy and utility holding company engaged through its two core subsidiaries, PPL Energy Supply, LLC and PPL Electric Utilities Corp., in the wholesale power business in the Northeastern and Western U.S. and the regulated electric delivery business in Pennsylvania and the U.K. The U.K distribution business, Western Power Distribution Holdings Limited (WPD), is structured as an indirect subsidiary of PPLES. The WPD debt is non-recourse to both PPL and PPLES. PPL Capital Funding, Inc. is a financing conduit for PPL's non-regulated businesses. Management has been phasing out PPL Capital Funding through debt retirements and refinancing funded with PPLES debt and cash. The remaining PPL Capital Funding debt totals $600 million, including $100 million senior notes due in 2047 and $500 million of subordinated notes (before 75% equity credit) due in 2067.

During 2008, PPL disposed of PPL Gas Utilities Corp., a natural gas and propane delivery business. Beginning in 2010, the earnings and cash flow contribution of PPLES is expected to increase substantially due to the expiration of a below-market contract with affiliate PPLEU as part of PPLEU's transition to a competitive electricity procurement process. In 2010, management expects approximately 79% of earnings from ongoing operations to come from the supply segment, 12% from international delivery, and 9% from the Pennsylvania delivery segment. The contribution from the Pennsylvania delivery business should increase thereafter due to the expected rate base growth, largely related to planned investments in transmission projects.

Financial Summary — PPL Corporation[a]

($ Mil., Fiscal Years Ended Dec. 31)

	LTM Ended 9/30/09	2008	2007	2006	2005	2004	2003
Fundamental Ratios (x)							
FFO/Interest Expense	4.5	3.7	3.9	3.9	3.7	3.6	4.0
CFO/Interest Expense	4.5	3.6	3.5	4.2	3.5	3.6	4.0
Debt/FFO	4.7	6.2	4.8	5.5	5.4	5.6	6.3
Operating EBIT/Interest Expense	2.7	3.6	3.3	3.4	2.8	2.9	3.3
Operating EBITDA/Interest Expense	4.3	4.6	4.1	3.7	3.2	3.3	3.7
Debt/Operating EBITDA	3.9	3.6	3.3	4.3	4.5	4.6	5.3
Common Dividend Payout (%)	96.4	52.8	—	—	—	—	—
Internal Cash/Capex (%)	85.7	55.7	47.2	75.2	93.5	124.3	103.5
Capex/Depreciation (%)	183.7	313.4	381.2	892.4	537.0	475.0	616.8
Profitability							
Adjusted Revenues	8,282	7,729	6,166	6,568	5,889	5,465	5,230
Net Revenues	4,016	4,458	4,540	4,349	4,033	3,768	3,583
Operating and Maintenance Expense	1,373	1,430	1,373	1,411	1,401	1,243	1,204
Operating EBITDA	1,948	1,828	2,107	1,714	1,436	1,452	1,363
Depreciation and Amortization Expense	700	461	446	158	154	148	125
Operating EBIT	1,250	1,797	1,661	1,556	1,282	1,304	1,238
Gross Interest Expense	457	496	510	463	453	446	373
Net Income for Common	531	930	1,288	865	678	698	734
Operating Maintenance Expense % of Net Revenues	34.2	32.1	30.2	32.4	34.7	33.0	33.6
Operating EBIT % of Net Revenues	31.1	40.3	36.6	35.8	31.8	34.6	34.6
Cash Flow							
Cash Flow from Operations	1,618	1,314	1,279	1,484	1,124	1,175	1,114
Change in Working Capital	26	(9)	(178)	161	(91)	(1)	(22)
Funds from Operations	1,592	1,323	1,457	1,323	1,215	1,176	1,136
Dividends	(516)	(509)	(477)	(423)	(351)	(301)	(316)
Capital Expenditures	(1,286)	(1,445)	(1,700)	(1,410)	(827)	(703)	(771)
Free Cash Flow	(184)	(640)	(898)	(349)	(54)	171	27
Net Other Investment Cash Flow	145	(77)	(145)	9	(39)	(103)	(7)
Net Change in Debt	58	1,255	(170)	277	(340)	(863)	(460)
Net Equity Proceeds	45	(19)	(680)	266	37	596	395
Capital Structure							
Short-Term Debt	620	679	92	42	214	42	56
Long-Term Debt	6,888	7,476	6,901	7,243	6,291	6,601	7,130
Total Debt	**7,508**	**8,155**	**6,993**	**7,285**	**6,505**	**6,643**	**7,186**
Total Hybrid Equity and Minority Interest	681	681	682	348	94	94	92
Common Equity	5,618	5,077	5,556	5,122	4,418	4,239	3,259
Total Capital	**13,807**	**13,913**	**13,231**	**12,755**	**11,017**	**10,976**	**10,537**
Total Debt/Total Capital (%)	54.4	58.6	52.9	57.1	59.0	60.5	68.2
Total Hybrid Equity and Minority Interest/Total Capital (%)	4.9	4.9	5.2	2.7	0.9	0.9	0.9
Common Equity/Total Capital (%)	40.7	36.5	42.0	40.2	40.1	38.6	30.9

[a]Numbers are adjusted to exclude interest, principal payments and amortization on utility tariff bonds. Operating EBIT – Operating income before total reported state and federal income tax expense. Operating EBITDA – Operating income before total reported state and federal income tax expense plus depreciation and amortization expense. Note: Numbers may not add due to rounding.
Source: Company reports, Fitch Ratings.

FitchRatings

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Fitch Affirms Ratings of PPL on Agreement to Acquire E. ON U.S. LLC Ratings Endorsement Policy

29 Apr 2010 12:47 PM (EDT)

Fitch Ratings-New York-29 April 2010: Fitch Ratings has affirmed the 'BBB' Issuer Default Ratings (IDR) and various instrument ratings of PPL Corp. (PPL) and its subsidiaries PPL Energy Supply, LLC and PPL Electric Utilities Corp. following the announcement of a definitive agreement to acquire E. ON U.S., LLC, the parent company of Louisville Gas and Electric Company (LG&E) and Kentucky Utilities Company (KU), for $6.7 billion in cash. The total enterprise value of the transaction, including the assumption of $975 million of tax exempt debt, is $7.625 billion. The Rating Outlook is Stable. A full list of the ratings is shown below.

The rating affirmation reflects the high equity content in the cash offer and the reduction in PPL's business risk from the addition of two financially healthy regulated electric utilities. In addition, PPL will receive tax benefits of approximately $450 million as part of the transaction. The financing plan includes up to $2.6 billion of PPL common stock, up to $1 billion of mandatory convertible debt, approximately $2.9 billion of subsidiary debt and the remainder available cash. The subsidiary debt is comprised of approximately $2.1 billion of utility first mortgage bonds to be issued by LG&E and KU and $800 million of senior unsecured debt to be issued by Kentucky Holdings, an intermediate holding company and direct parent company of LG&E and KU. A portion of the proceeds will be used by the newly acquired entities to retire the $4.6 billion of inter-company borrowings. The hybrid securities are expected to be issued by PPL Capital Funding, Inc., a financing subsidiary of PPL. PPL has also put in place a $6.5 billion bridge loan facility.

The acquisition substantially reduces PPL's commodity exposure, adds scale, geographic and regulatory diversity and lowers business risk. After the acquisition, PPL will derive approximately 60% of EBITDA and cash flow from regulated utility operations and the remainder from merchant generation, compared to the current mix of about 30% from regulated utilities currently and 70% from merchant generation. The regulated contribution should continue to grow over time due to the projected rate base growth of the company's domestic utilities and the unfavorable market conditions in the merchant power markets. Moreover the credit quality of the two Kentucky utilities, which are not currently rated by Fitch, appear to be consistent with an IDR equal to or greater than PPL's current 'BBB' IDR.

The primary credit concerns are the capital market risk of placing the proposed debt and equity issues on a timely basis and the concentration of coal-fired generation at the two Kentucky utilities. Maintenance of current ratings is contingent on the successful completion of the proposed financing plan as presented to Fitch without relying on the bridge loan facility. The coal exposure is mitigated by constructive regulatory provisions in Kentucky that provide for the recovery of environmental expenditures. Consummation of the transaction is subject to regulatory approvals, which management expects will take six to nine months.

Fitch affirms the following ratings:

PPL Corp
--Long-term IDR at 'BBB';
--Short-term IDR at 'F2;.

PPL Energy Supply, LLC
--Long-term IDR at 'BBB';
--Senior unsecured debt at 'BBB';
--Short-term IDR at 'F2'.

PPL Capital Funding Corp.
--Long-term IDR at 'BBB';
--Short-term IDR at 'F2';
--Senior unsecured debt at 'BBB';
--Junior subordinated notes at 'BB+'.

PPL Electric Utilities Corp.
--Long-term IDR at 'BBB';
--Secured debt at 'A-';
--Preferred Stock 'at BBB-';
--Preference Stock at 'BBB-';
--Short-term IDR at 'F2';
--Commercial Paper at 'F2'.

These rating actions reflect the application of Fitch's current criteria which are available at 'www.fitchratings.com' and specifically include the following reports:
--'Corporate Rating Methodology' (Nov. 24, 2009).
--'Credit Rating Guidelines for Regulated utility Companies' (July 31, 2007).
--'U.S. Power and Gas Comparative Operating Risk (COR) Evaluation and Financial Guidelines' (Aug.22, 2007).

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Additional information is available at 'www.fitchratings.com'.

FitchRatings

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Fitch Affirms the Ratings of PPL and Subs on Acquisition Ratings Endorsement Policy
02 Mar 2011 6:11 PM (EST)

Fitch Ratings-New York-02 March 2011: Fitch Ratings has affirmed the ratings of PPL Corp. (PPL) and its U.S. subsidiaries following the announcement of a definitive agreement to acquire the Central Networks UK electric distribution businesses from E.ON UK plc for $5.6 billion in cash plus the assumption of $800 million of debt and transaction costs. The Ratings Outlook for all entities is Stable. See a full list of ratings affirmed below.

The affirmation reflects the reduction in business risk that results from the addition of two regulated electric utilities, and the on-going transformation from a company reliant on commodity-sensitive businesses to one that is highly regulated. It also assumes that the initial increase in leverage, as measured by the ratio of debt/EBITDA, will decline over the next few years as the company realizes a full year of earnings from the November 2010 acquisition of LG&E & KU Energy LLC (rated with a 'BBB+' Issuer Default Rating [IDR] by Fitch) and from the integration of Central Networks. In addition, the majority of the acquisition debt will be housed at the newly acquired UK subsidiaries, and will be non-recourse to PPL. The capital market risk of placing the permanent debt and equity financing and the ability to extract expected synergies from the newly acquired UK businesses are the primary credit concerns. There are no regulatory approvals required and management expects to complete the transaction in April 2011.

PPL plans to initially fund the $5.6 billion acquisition with drawings under a committed bridge loan facility. The permanent financing, expected to be completed in the second quarter of 2011, will be comprised of approximately $1.75 billion of common equity, $875 million of mandatory convertible debt, and $3 billion of subsidiary debt including $750 million at an intermediate UK holding company and $2.45 billion at Central Networks' two operating utilities, Central Networks East plc and Central Networks West plc. The capital market risk is mitigated by the short time frame to closing. Fitch calculates the pro forma 2010 ratio of debt/EBITDA will initially spike to 5.0 times (x) compared to the adjusted 2010 Debt/EBITDA of 4.4x. By 2013, Fitch expects the debt ratio to fall below 4.0x.

The acquisition substantially reduces PPL's commodity price exposure and lowers Fitch's business risk assessment by a full category. By 2013, management expects to derive approximately 75% of EBITDA from regulated operations compared to approximately 60% prior to the current transaction and about 30% prior to the acquisition of LG&E and KU Energy in November 2010. The service territories of Central Networks' two operating utilities are contiguous with PPL's other UK electric distribution business, Western Power Distribution, which provides the opportunity for synergy savings, which under UK regulation are retained until the next price review due in mid-2013.

Fitch affirms the following ratings with a Stable Outlook:

PPL Corp
--Long-term IDR at 'BBB';
--Short-term IDR at 'F2'.

PPL Energy Supply, LLC
--Long-term IDR at 'BBB';
--Senior unsecured debt at 'BBB';
--Short-term IDR at 'F2'.

PPL Capital Funding Inc.
--Long-term IDR at 'BBB';
--Short-term IDR at 'F2';
--Senior unsecured debt at 'BBB';
--Jr. subordinated notes at 'BB+'.

PPL Electric Utilities Corp.
--Long-term IDR at 'BBB';
--Secured debt 'A-';
--Preference stock at 'BBB-';
--Short-term IDR at 'F2';
--Commercial paper at 'F2'.

LG&E and KU Energy LLC
--Long-term IDR at 'BBB+';
--Senior unsecured debt at 'BBB+';
--Short-term IDR at 'F2'.

Kentucky Utilities Company
--Long-term IDR at 'A-';

--Secured debt at 'A+';
--Senior unsecured debt at 'A';
--Short-term IDR at 'F2'.

Louisville Gas and Electric Company
--Long-term IDR at 'A-';
--Secured debt at 'A+';
--Senior unsecured debt at 'A';
--Short-term IDR at 'F2'.

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Applicable Criteria and Related Research:
--'Corporate Rating Methodology' (Nov. 24, 2009);
--'Credit Rating Guidelines for Regulated utility Companies' (July 31, 2007);
--'U.S. Power and Gas Comparative Operating Risk (COR) Evaluation and Financial Guidelines' (August 22, 2007).

Applicable Criteria and Related Research:
U.S. Power and Gas Comparative Operating Risk (COR) Evaluation and Financial Guidelines
Credit Rating Guidelines for Regulated Utility Companies
Corporate Rating Methodology

FitchRatings

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Fitch Affirms Ratings of PPL and Subsidiaries

Ratings Endorsement Policy

06 Dec 2011 1:59 PM (EST)

Fitch Ratings-New York-06 December 2011: Fitch Ratings has affirmed the Issuer Default Ratings (IDR) and individual security ratings of PPL Corp. (PPL) and each of its domestic subsidiaries. The Rating Outlook is Stable. A full list of rating actions appears at the end of this release.

Key Rating Drivers

Transformative Utility Acquisitions: PPL lowered its consolidated business risk over the past year through the acquisition of two regulated utility businesses. The acquisitions transformed PPL from a company reliant on commodity-sensitive businesses to one that is highly regulated. The acquisitions included LG&E and KU Energy LLC (previously E. ON U.S.), the corporate parent of two vertically integrated electric utilities in Kentucky, and Central Networks, which operates two electric distribution utilities in the UK.

Lower Business Risk: By 2013, management expects to derive approximately 75% of EBITDA from regulated operations compared to an estimated 30% prior to the two acquisitions.

Rising Capital Expenditures: PPL is investing heavily in its regulated businesses and expects to grow the regulated rate base by approximately 9% annually over the next five years. The investments will require on-going rate increases in both Kentucky and Pennsylvania and equity support from PPL. Expenditures in Kentucky are primarily to install environmental upgrades to comply with new Environmental Protection Agency (EPA) standards. In Pennsylvania the new investments are largely to replace aging infrastructure and for transmission upgrades. Approximately two-thirds of the planned investments are subject to regulatory provisions that provide near real-time recovery of invested capital.

Constructive Regulatory Mechanisms: The two Kentucky utilities operate with an environmental cost recovery (ECR) mechanism that permits approved environmental costs to be recovered in rates two months after being incurred. The ECR mechanism is particularly important given the substantial investment needed by PPL's two Kentucky subsidiaries to meet the EPA's newest regulations. The ECR provides for recovery of and a return on environment investments and substantially mitigates construction risk.

Ample liquidity: PPL and its subsidiaries have ample liquidity and manageable debt maturities. Internal cash flow is supplemented by committed bank lines at each of its domestic operating subsidiaries aggregating $4.5 billion. PPL's UK subsidiaries maintain separate bank credit facilities of GBP1,041 million. Available cash and equivalents at Sept. 30, 2011, were $1.5 billion and are expected by Fitch to be used to fund capital expenditures and to reduce leverage. There are no debt maturities in 2012.

Cash from operations (CFO) increased to $2.5 billion for the 12 months ended Sept. 30, 2011 compared to $1.5 billion in 2010 and is expected by Fitch to approximate $2 billion in 2012. By comparison, consolidated capital expenditures are forecasted to range between $3.5 billion and $4 billion annually. In 2013 and 2014 cash flow will be supplemented by the remarketing of mandatorily convertible debt issued in 2010 and 2011 of approximately $1.2 billion and $1 billion, respectively. Fitch expects funds from operations (FFO)/debt to range between 15% and 20% through 2013 and FFO/interest between 3.5 times (x)-4.0x.

PPL Electric Utilities Corp (PPLEU)

Key Rating Drivers

Credit Profile: Leverage, interest coverage and cash flow measures are consistent with Fitch's target financial ratios for 'BBB' (IDR) rated issuers and comparable to PPLEU's peer group of electric distribution utilities with similar risk characteristics. Going forward, credit metrics will be pressured by the costs associated with a large capital expenditure program that will require regular rate increases and equity support from PPL.

Commodity Price Exposure: PPLEU bears no commodity price exposure, which reduces cash flow volatility and business risk. The company is required to serve as the electricity provider of last resort for customers that do not choose an alternative energy provider and recovers 100% of its electricity procurement costs from rate payers.

High Capital Expenditures: Capital expenditures are expected to rise substantially over the next four years (2012-2015). The higher capital expenditures are primarily to replace an aging infrastructure and to enhance the transmission network. Favorably, approximately 55% of the expenditures are subject to the Federal Energy Regulatory Commission's (FERC) formula rate regulation, which provides timely recovery of invested capital and operating costs including a return on equity.

Demand Reduction: Pennsylvania Act 129 (Act 129) requires PPLEU to reduce electric consumption with the company absorbing the associated revenue loss. PPLEU met the initial 1% consumption reduction target for 2011 and is required to achieve a 3% reduction by May 31, 2013. Implementation costs are recoverable via a rate rider mechanism. If PPLEU were to fail to achieve the required reductions, it would be subject to civil penalties of up to $20 million.

Rate Settlement: Effective Jan. 1, 2011, PPLEU implemented a $77.5 million (1.6%) rate increase, equal to about two-thirds of its $115 million rate request. The allowed return on equity (ROE) was 10.7%, which is marginally above the industry average. Management plans to file bi-annual rate increases to recover its rising capital costs.

PPL Energy Supply, LLC (PPLES)

Key Rating Drivers
Merchant Exposure: PPLES is exposed to commodity price risk in the mid-Atlantic and western markets where it primarily operates. To limit cash flow volatility, management established hedge targets of 90%-100% of expected base load generation in the prompt year, 60%-90% in year two and 30%-60% in year three. Currently, hedge ratios are at the high end of the target ranges.

Financial Measures: Leverage and interest coverage measures are supportive of PPLES' current ratings and risk profile, but will be pressured by low power prices over the next several years. The ratings anticipate scheduled debt retirements and equity support will allow PPLES to maintain its current financial condition. Fitch expects the ratio of debt to EBITDA to remain below 2.5x and the ratio of EBITDA to interest above 5.0x.

Internal Reorganization: In January 2011, PPLES completed an internal transfer of its international businesses that reduced leverage and bolstered credit metrics. The company distributed its 100% ownership in PPL Global to parent PPL Energy Funding. Global is the direct parent of PPL's UK electric distribution utilities. Global's regulated subsidiaries carry more leverage than PPLES merchant business, which accounts for the improvement in credit metrics. PPLES' business risk was unchanged.

Environmental Exposure: PPLES is well positioned to benefit from any price rise associated with environmental compliance costs and associated plant retirements. The company has invested heavily in pollution control equipment over the past several years and does not expect to incur any additional capital expenditures as a result of new EPA regulations. Consequently, any improvement in power prices is expected to increase energy margins.

Asset Sale: In March 2011, PPLES completed the sale of three non-core generating facilities for $381 million. Proceeds from the asset sales together with available cash were used to retire debt. PPLES previously disposed of non-core assets in 2010 and 2009.

Moderate Capital Requirements: With environmental spending largely complete and no major capacity additions planned, capital expenditures over the next five years are well below the outlays of the prior five-year period. The moderate capital requirements alleviate external funding requirements and support the current ratings.

Kentucky Utilities Co. (KU) and Louisville Gas and Electric Co. (LG&E)

Key Rating Drivers
Solid Credit Metrics: The ratings of KU and LG&E reflect solid credit metrics and constructive regulatory policies that limit cash flow volatility and business risk.

Rising Capital Expenditures: Capital expenditures are expected to rise substantially over the next four years (2012-2015). The higher capital expenditures are primarily to meet environmental compliance standards. The four-year capital budget aggregates approximately $5.7 billion. Capital expenditures peak in 2013 and 2014 at $1.6 billion in each year. Approximately 66% of the capital expenditures ($3.8 billion) are environmental costs.

Constructive Regulation: Constructive regulatory policies include a monthly fuel adjustment clause (FAC) and an environmental cost recovery mechanism.

Environmental Cost Recovery Plan: In June 2011, KU and LG&E filed an ECR plan requesting recovery of the expected $2.5 billion of environmental compliance costs as well as operating expenses as incurred. LG&E requested $1.4 billion and KU $1.1 billion. The estimated rate impact is 3.6% annually for LG&E and 2.3% for KU. In addition, to meet the new EPA regulations LG&E and KU announced plans to retire three older coal units and to add new natural gas fired generating capacity.

Certificate of Public Convenience and Necessity (CPCN): In September 2011 the two Kentucky utilities filed a CPCN with the Kentucky Public Service Commission (KPSC) requesting approval to build a 640 megwatt (MW) natural gas combined cycle generating unit and to purchase three simple-cycle natural gas combustion turbines, aggregating 495 MW from Blue Grass Generation Co. The combined cycle plant is estimated to cost $593 million ($911 per kilowatt [kw]) and the peaking units $110 million.

In November, the companies reached a settlement with intervenors supporting approval of $2.25 billion, including $1.4 billion for LG&E and $850 million for KU. The $250 million of remaining capital costs are deferred and KU may seek recovery in a future rate proceeding through the ECR mechanism.

Fitch affirms the following ratings:

PPL Corp
--Long-term IDR at 'BBB';
--Short-term IDR at 'F2'.

PPL Capital Funding Inc.
--Long-term IDR at 'BBB';
--Senior unsecured debt at 'BBB';
--Junior subordinated notes at 'BB+';

--Short-term IDR at 'F2'.

PPL Energy Supply, LLC
--Long-term IDR at 'BBB';
--Senior unsecured debt at 'BBB';
--Short-term IDR at 'F2';
--Commercial paper at 'F2'.

PPL Electric Utilities Corp.
--Long-term IDR at 'BBB';
--Secured debt at 'A-';
--Preference stock at 'BBB-';
--Short-term IDR 'F2';
--Commercial paper 'F2'.

LG&E and KU Energy LLC
--Long-term IDR at 'BBB+';
--Senior unsecured debt at 'BBB+';
--Short-term IDR at 'F2'.

Kentucky Utilities Company
--Long-term IDR at 'A-';
--Secured debt at 'A+';
--Secured pollution control bonds at 'A+/F2';
--Senior unsecured debt at 'A';
--Short-term IDR at 'F2'.

Louisville Gas and Electric Company
--Long-term IDR at 'A-';
--Secured debt 'A+';
--Secured pollution control bonds at 'A+/F2';
--Senior unsecured debt at 'A';
--Short-term IDR at 'F2'.

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Additional information is available at 'www.fitchratings.com'. The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.

Applicable Criteria and Related Research:

--'Corporate Rating Methodology' (Aug. 12, 2011);
-- 'Parent and Subsidiary Rating Linkage', Aug. 12, 2011
-- 'Recovery Ratings and Notching Criteria for Utilities' (May 12, 2011);
--'Rating North American Utilities, Power, Gas and Water Companies' (May 12, 2011).

Applicable Criteria and Related Research:
Recovery Ratings and Notching Criteria for Utilities
Parent and Subsidiary Rating Linkage

PPL Corporation

And PPL Capital Funding, Inc.
Full Rating Report

Ratings

PPL Corp.

Long-Term IDR	BBB
Short-Term IDR	F2

PPL Capital Funding, Inc.

Long-Term IDR	BBB
Short-Term IDR	F2
Senior Unsecured	BBB
Subordinated Debt	BB+

Rating Outlook

Long-Term IDR	Stable

IDR – Issuer default rating.

Financial Data

PPL Corp.

($ Mil.)	9/30/11	12/31/10
Revenue	10,235	8,521
Gross Margin	6,969	4,799
Operating EBITDA	3,649	2,422
Net Income	1,713	938
CFO	2,500	2,033
Total Adjusted Debt	16,237	12,542
Total Capitalization	29,971	21,835
Capex/Depreciation (x)	2.9	2.7

Related Research

Kentucky Utilities Company, Dec. 16, 2011

Louisville Gas and Electric Company, Dec. 16, 2011

LG&E and KU Energy LLC, Dec. 16, 2011

PPL Energy Supply, LLC, Dec. 16, 2011

PPL Electric Utilities Corporation, Dec. 16, 2011

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Key Rating Drivers

Transformative Utility Acquisitions: PPL Corporation (PPL) lowered its consolidated business risk over the past year through the acquisition of two regulated utility businesses. The acquisitions transformed PPL from a company reliant on commodity-sensitive businesses to one that is highly regulated. The acquisitions included LG&E and KU Energy LLC (previously E.ON U.S.), the corporate parent of two vertically integrated electric utilities in Kentucky, and Central Networks, which operates two electric distribution utilities in the U.K.

Lower Business Risk: The acquisitions reduced Fitch Ratings' business risk assessment by a full category. By 2013, management expects to derive approximately 75% of EBITDA from regulated operations, compared with an estimated 30% prior to the two acquisitions.

Acquisition Funding: Both acquisitions were funded with a mix of common stock, hybrid securities, and debt in a manner that maintained PPL's consolidated capital structure. The debt portion of the acquisition funding is housed at the newly acquired subsidiaries. Fitch expects the initial increase in consolidated debt to EBITDA and FFO to debt to decline as the company realizes a full year's earnings from the newly acquired entities.

Rising Capex: PPL is investing heavily in its regulated businesses, and expects to grow the regulated rate base by approximately 9% annually over the next five years. The investments will require ongoing rate increases in both Kentucky and Pennsylvania, and equity support from PPL. Expenditures in Kentucky are primarily to install environmental upgrades to comply with new Environmental Protection Agency (EPA) standards. In Pennsylvania, the new investments are largely to replace aging infrastructure and for transmission upgrades.

Constructive Regulatory Mechanisms: The two Kentucky utilities operate with an environmental cost recovery (ECR) mechanism that permits approved environmental costs to be recovered in rates two months after incurred. The ECR mechanism is particularly important given the two utilities' reliance on coal-fired electric generation and the substantial investment that will be required to meet the EPA's newest regulations. The ECR provides for recovery of and a return on environment investments, and substantially mitigates construction risk.

Pennsylvania Rate Increase: PPL's Pennsylvania subsidiary, PPL Electric Utilities Corp. (PPLEU) implemented a $77.5 million base rate increase effective Jan. 2011. The higher rates favorably affected 2011 earnings and cash flow.

What Could Trigger a Rating Action

Regulatory Changes: Business risk would be substantially elevated by any change in the commodity cost recovery provisions in Pennsylvania or Kentucky, or by an adverse decision in the pending ECR plan filed with the Kentucky Public Service Commission (KPSC).

Unit Outages: A prolonged base-load power plant outage, particularly at a nuclear facility, at PPL's merchant generation subsidiary, PPL Energy Supply, LLC (PPLES) would adversely affect consolidated cash flow and credit quality.

Liquidity and Debt Structure

Ample liquidity

PPL and its subsidiaries have ample liquidity. Internal cash flow is supplemented by committed bank lines at each of its operating subsidiaries, aggregating $4.5 billion as shown below. PPL's U.K. subsidiaries maintain separate bank credit facilities of GBP1,041 million. Available cash and equivalents were $1.5 billion at Sept. 30, 2011, and are expected by Fitch to be used to fund capex and to reduce leverage.

In 2013 and 2014, cash flow will be supplemented by the remarketing of mandatorily convertible debt, issued in 2010 and 2011, of approximately $1.2 billion and $1.0 billion, respectively. Fitch expects the proceeds will be used to infuse equity into its subsidiaries to fund capex and reduce debt.

The credit facilities are sized to fund expected collateral postings and for other working capital needs. The combination of relatively short duration hedges (no more than three years) and low commodity prices has limited collateral postings and use of credit facilities in recent periods.

PPL Domestic Credit Facilities

($ Mil., As of Sept. 30, 2011)		Committed Capacity	Expiration Date	Borrowed	LOC Issued	Available Capacity
PPL Electric Utilities Corp.	Syndicated Credit Facility	200	Oct. 2016	0	13	187
	Asset-Backed Credit Facility	150	July 2012	0	N.A.	150
PPL Energy Supply, LLC	Syndicated Credit Facility	3,000	Oct. 2016	250	132	2,618
	Letter of Credit Facility	200	March 2013	N.A.	76	124
Louisville Gas & Electric Co.	Syndicated Credit Facility	400	Oct. 2016	0	0	400
Kentucky Utilities Co.	Syndicated Credit Facility	400	Oct. 2016	0	0	400
	Letter of Credit Facility	198	April 2014	N.A.	198	0
Total Domestic Credit Facilities		**4,548**		**250**	**419**	**3,879**

N.A. – Not applicable. LOC – Letter of credit.
Source: PPL Corp. Sept.30, 2011 10-Q.

As shown at right, debt maturities are manageable.

Consolidated Debt Maturities

	2012	2013	2014	2015
PPL Energy Supply	—	737	300	300
PPL Electric Utilities	—	—	10	100
Kentucky Utilities	—	—	—	250
Louisville Gas and Electric	—	—	—	250
Consolidated	—	737	310	900

Source: 10-K.

Capex

PPL is investing heavily in its regulated businesses and expects the regulated rate base to grow approximately 9% annually over the next five years. The investments are driven by environmental spending in Kentucky, and transmission and reliability improvements in Pennsylvania. Approximately two-thirds of the planned investments are subject to regulatory provisions that provide near real-time recovery of invested capital, including Federal Energy Regulatory Commission (FERC) jurisdictional transmission in Pennsylvania, environmental compliance in Kentucky, and all capital investments in the U.K.

Kentucky Regulated Segment

Capex over the four-year period 2012–2015 aggregates approximately $5.7 billion, with peak expenditures occurring in 2014 and 2015. Approximately 66% of capex ($3.7 billion) is related

Related Criteria

Corporate Rating Methodology, Aug. 12, 2011

Recovery Ratings and Notching Criteria for Utilities, Aug. 12, 2011

Rating North American Utilities, Power, Gas, and Water Companies, May 16, 2011 to environmental compliance. To meet the environmental regulations, KU and LG&E each filed an ECR plan with the KPSC, as described below.

Environmental Cost Recovery Plan

KU and LG&E filed an ECR plan in June 2011 requesting recovery of $2.5 billion of projected environmental compliance costs and operating expenses as incurred.

LG&E requested $1.4 billion to modernize the scrubbers at the 1,472-MW Mill Creek Generating Station, and to install fabric filter bag house systems for increased particulate and mercury control on all units at Mill Creek and Trimble County unit 1. The estimated cost of the scrubber is $645 million ($438 per kW). The bag houses are estimated to cost $623 million and $124 million, respectively. The estimated rate effect is 3.6% annually over 2011–2016.

KU requested $1.1 billion for upgrades that include bag houses on units at the E.W. Brown and Ghent generating stations, and conversion of a wet storage facility to a dry landfill at E.W. Brown. The bag houses are estimated to cost $343 million and $712 million, respectively, and the landfill $59 million. The estimated rate effect is 2.3% annually over 2011–2016.

The companies reached a settlement with interveners in November, supporting approval of $2.25 billion, including $1.4 billion for LG&E and $850 million for KU. The $250 million of remaining costs are deferred, and KU may seek recovery in a future proceeding. The KSPC approved the settlement on Dec. 15, 2011.

In addition to meeting the new EPA regulations, LG&E and KU announced plans to retire three older coal units and to add new natural gas-fired generating capacity as described below.

Certificate of Public Convenience and Necessity (CPN)

The two Kentucky utilities filed a CPN with the KPSC in September 2011, requesting approval to build a 640-MW natural gas combined-cycle generating unit and to purchase three simple-cycle natural gas combustion turbines, aggregating 495 MW from Blue Grass Generation Co. The combinedcycle plant is estimated to cost $690 million ($1,078 per kW) and the peaking units $110 million.

Pennsylvania Regulated Segment

Capex is expected to rise substantially over the next four years (2012–2015). The higher capex is primarily to replace an aging infrastructure and to enhance the transmission network. The four-year capital budget aggregates approximately $3.0 billion, more than double the approximately $1.2 billion invested over 2007–2010. Peak spending years are 2013 and 2014.

Favorably, approximately 60% of capex ($1.8 billion) is transmission-related, the majority of which is subject to FERC's formula rate regulation, which provides timely recovery of invested capital and operating costs, including a return on equity (ROE).

Absent passage of HB 1294 (described below), management indicated it plans to file biannual rate cases in Pennsylvania to recover its capital and operating costs on a more timely basis.

Approximately $440 million of the projected expenditures are for construction of the Susquehanna/Roseland transmission project. The project has been granted an incentive ROE of 12.93%. The ROE for the remaining FERC-regulated transmission assets is 11.68%, which is well above the 10.7% allowed by the Pennsylvania Public Utility Commission (PUC) in PPLEU's last rate case. The Susquehanna/Roseland project is expected to resume construction in 2013 and be in service by 2015. Susquehanna/Roseland was recently included in a list of projects to be aided by the Federal Response Team, which should help to achieve the projected in-service date.

HB 1294

Pending legislation in Pennsylvania clarifies the PUC's authority to permit alternative ratemaking. The bill passed the state House of Representatives and is pending in the Senate. If enacted, the legislation would permit FERC-like formula ratemaking, and would support timely cost recovery of PPLEU's planned replacement of aging infrastructure.

Supply Business

Projected expenditures at PPLES are moderate. Over the next four years (2012–2015) capex aggregates $2.7 billion, compared to $4.4 billion over the 2007–1010 period. The company has invested heavily in pollution-control equipment over the past several years, and does not expect to increase capex due to the new Cross-State Air Pollution Rule requirements.

Since 2005, PPLES invested approximately $1.6 billion in environmental upgrades, including scrubbers at the Keystone, Montour, and Brunner Island generating stations. All of the coal capacity is now scrubbed. Current expenditure plans include a selective catalytic reduction system at Brunner Island.

Acquisitions

Central Networks

In April 2011, PPL completed the acquisition of Central Networks, subsequently renamed WPD Midlands, from E.ON AG for $5.6 billion in cash plus the assumption of $800 million of debt. The newly acquired utilities are contiguous to PPL's other U.K. electric distributions businesses, WPD South Wales and WPD South West, and are expected to provide synergy savings through cost reductions and leveraging WPD's best-in-class management ranking.

Central Networks' regulated electric distribution operations include Central Networks East plc and Central Networks West plc, which serve five million customers and are collectively the second-largest distribution network in the U.K. By comparison, WPD South Wales and WPD South West serve approximately 2.6 million customers. PPL funded the acquisition with a combination of common stock, hybrid securities, and subsidiary debt at the U.K. level, in a manner that preserved PPL's capital structure.

LG&E and KU Energy, LLC

PPL acquired E.ON US LLC, renamed LG&E and KU Energy, LLC (LKE), on Nov. 1, 2010, from E.ON AG for approximately $6.8 billion, including assumed debt. LKE is the direct parent company of two vertically integrated utilities, Kentucky Utilities Company (KU) and Louisville Gas and Electric Company (LG&E).

The two utilities are engaged in the generation, transmission, distribution, and sale of electricity in Kentucky and, in KU's case, Virginia and Tennessee (less than 10 customers). LG&E also provides natural gas service. There is no retail electric or natural gas competition in Kentucky. Similar to the Central Networks transaction, PPL funded the acquisition with a combination of common stock, hybrid securities, and subsidiary debt in a manner that preserved PPL's capital structure.

Recent Developments

Pennsylvania Rate Case

Effective Jan. 1, 2011, PPLEU implemented a $77.5 million (1.6%) rate increase that will benefit 2011 earnings and cash flow. The increase was based on a 10.7% ROE. The rate increase amounted to approximately two-thirds of PPLEU's $115 million rate request.

Asset Sales

PPLES completed the sale of three noncore generating facilities for $381 million in March 2011,. The asset sales included natural gas-fired plants in Wallingford, IL (209 MW), and University Park, IL (528 MW), and the company's 33% interest (174 MW) in Safe Harbor Water Power Co., a hydro facility in Conestoga, PA.

The sale resulted in a pretax impairment charge of $96 million ($58 million after tax). The asset sales were a part of the LKE acquisition financing strategy and a continuation of noncore asset sales in 2009 and 2010.

Internal Reorganization

PPLES distributed its 100% ownership in PPL Global to parent PPL Energy Funding in January 2011. PPL Global is the parent company of PPL's U.K. electric distribution utilities. The internal reorganization is intended to better align PPL's organizational structure with the way it manages its business and reports segment information. The internal transfer had no effect on consolidated results or credit quality, but reduced PPLES's debt by approximately $2.3 billion. PPLES's credit quality measures improved since WPD carries more leverage than PPLES merchant business. PPLES's business risk was unchanged.

Nuclear Repairs

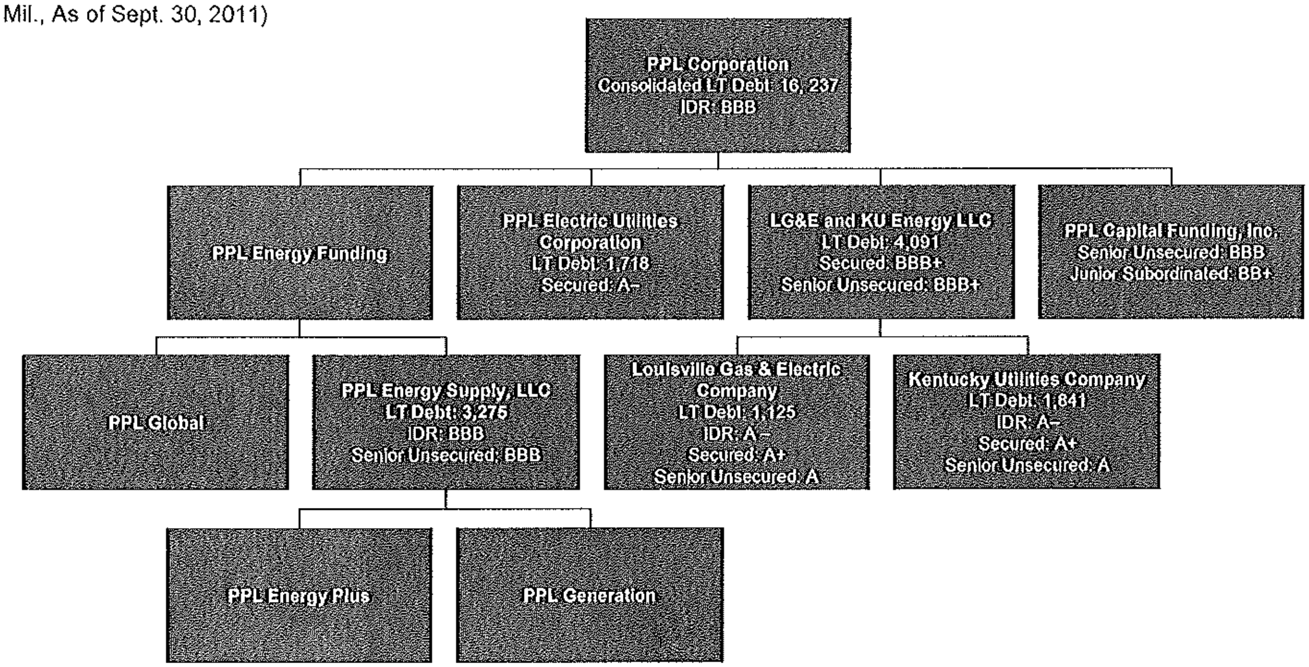
The supply business operations were adversely affected by the discovery of defective low-pressure turbine blades at the two Susquehanna nuclear units in 2011. The unscheduled outage to replace the turbine blades cost approximately $65 million (after tax).

Company Background

PPL is a parent holding company that derives approximately 75% of earnings from regulated utility businesses in the U.S. and U.K., and the remainder from a merchant generation business operating in the northeastern and western region of the U.S. An organizational chart showing the group structure is below.

Each of the operating subsidiaries issues debt to fund their operations, but is reliant on PPL for equity support. PPL Capital Funding Corp. is a wholly owned financing subsidiary that primarily issues hybrid securities, such as those used to fund the two recent acquisitions, but still has some legacy debt.

Organizational and Debt Structure
($ Mil., As of Sept. 30, 2011)



IDR – Issuer default rating. LT – Long-term.
Source: Company reports, Fitch Ratings.

PPL Corporation

($ Mil., Years Ending Dec. 31)	2007	2008	2009	2010	LTM 9/30/11
Fundamental Ratios (x)					
FFO/Interest Expense	3.93	4.16	4.88	4.82	4.38
CFO/Interest Expense	2.57	3.15	4.20	3.25	2.81
FFO/Debt (%)	20.15	19.33	22.73	19.05	18.51
Operating EBIT/Interest Expense	3.32	3.37	2.03	2.98	3.12
Operating EBITDA/Interest Expense	4.21	4.25	3.06	3.87	4.10
Operating EBITDAR/(Interest Expense + Rent)	0.35	0.48	1.12	0.59	0.51
Debt/Operating EBITDA	3.45	3.85	5.58	5.18	4.45
Common Dividend Payout (%)	37.03	52.80	127.03	60.34	41.56
Internal Cash/Capital Expenses (%)	47.18	77.43	108.98	91.86	77.20
Capital Expenses/Depreciation (%)	381.17	319.37	269.23	287.23	266.82
Profitability					
Adjusted Revenues	6,153.00	7,857.00	7,449.00	8,521.00	10,325.00
Net Revenues	4,527.00	4,623.00	3,848.00	4,799.00	6,969.00
Operating and Maintenance Expense	1,373.00	1,895.00	1,814.00	1,756.00	2,563.00
Operating EBITDA	2,094.00	2,147.00	1,351.00	2,422.00	3,649.00
Depreciation and Amortization Expense	446.00	444.00	455.00	556.00	868.00
Operating EBIT	1,648.00	1,703.00	896.00	1,866.00	2,781.00
Gross Interest Expense	497.00	505.00	441.00	626.00	890.00
Net Income for Common	1,288.00	930.00	407.00	938.00	1,713.00
Operating Maintenance Expense as % of Net Revenue	30.33	32.01	47.14	36.59	36.78
Operating EBIT as % of Net Revenues	36.40	40.99	23.28	38.88	39.91
Cash Flow					
Cash Flow from Operations	1,279.00	1,589.00	1,852.00	2,033.00	2,500.00
Change in Working Capital	(178.00)	(9.00)	140.00	(356.00)	(506.00)
Funds from Operations	1,457.00	1,598.00	1,712.00	2,389.00	3,006.00
Dividends	(477.00)	(491.00)	(517.00)	(566.00)	(712.00)
Capital Expenditures	(1,700.00)	(1,418.00)	(1,225.00)	(1,597.00)	(2,316.00)
FCF	(898.00)	(320.00)	110.00	(130.00)	(528.00)
Net Other Investment Cash Flow	(145.00)	(209.00)	345.00	(6,794.00)	72.00
Net Change in Debt	(170.00)	1,255.00	(770.00)	4,692.00	7,601.00
Net Equity Proceeds	(680.00)	(19.00)	60.00	2,387.00	2,297.00
Capital Structure					
Short-Term Debt	92.00	679.00	639.00	694.00	428.00
Long-Term Debt	7,138.00	7,588.00	6,893.00	11,848.00	15,809.00
Total Debt	**7,230.00**	**8,267.00**	**7,532.00**	**12,542.00**	**16,237.00**
Total Hybrid Equity and Minority Interest	445.00	569.00	569.00	1,083.00	2,886.00
Common Equity	5,556.00	5,077.00	5,496.00	8,210.00	10,848.00
Total Capital	**13,231.00**	**13,913.00**	**13,597.00**	**21,835.00**	**29,971.00**
Total Debt/Total Capital (%)	54.64	59.42	55.39	57.44	54.18
Total Hybrid Equity and Minority Interest/Total Capital (%)	3.36	4.09	4.18	4.96	9.63
Common Equity/Total Capital (%)	41.99	36.49	40.42	37.60	36.19

Source: Fitch Ratings.

The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.

KENTUCKY UTILITIES COMPANY

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Response to First Set of Data Requests of
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Dated July 31, 2012

Question No. 1-14

Responding Witness: Daniel K. Arbough

Q1-14. Please provide Kentucky Utilities' actual historical capital structure from 2007 through 2011. Please provide all supporting work papers and documentation.

A1-14. See attached.

Kentucky Utilities Company

Historical Capital Structure

	3/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007
Long-term debt - including current portion	1,841	1,841	1,840	1,682	1,532	1,264
Short-term debt			10	45	16	23
Total Debt	1,841	1,841	1,850	1,727	1,548	1,287
Total Equity	2,138	2,128	2,075	1,952	1,744	1,435
Total Capitalization	3,979	3,969	3,925	3,679	3,292	2,722
Equity / Capital %	53.73%	53.62%	52.87%	53.06%	52.98%	52.72%

KENTUCKY UTILITIES COMPANY

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Response to First Set of Data Requests of
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Dated July 31, 2012

Question No. 1-15

Responding Witness: Daniel K. Arbough

Q1-15. Please provide a five year monthly history from January 2007 through the most recent month available (2007-2012) of the average daily balances of short term debt by type of short term debt security and/or source (bank loans, commercial paper, money pool, receivables financing, etc.), the average interest rate for each month by type of short term debt and/or source, and the basis for the interest rate for each month by type of short term debt and/or source, e.g., LIBOR + 1%.

A1-15. Attached is a five year monthly history (2007-2012) of the average daily balances of short-term debt. During this period Kentucky Utilities Company's (KU) short-term debt has been sourced through a Money Pool agreement. Effective December 1, 2011, the daily outstanding balance of all Money Pool loans during a calendar month accrue interest at the rates for A2/P2/F2 rated US Commercial Paper programs as quoted by Bloomberg under the ticker DCPD030D on the last business day of the prior calendar month. Prior to December 1, 2011, the daily outstanding balance of all short term loans accrued interest at the rate for high-grade unsecured 30-day commercial paper of major corporations sold through dealers as quoted in The Wall Street Journal (the "Average Composite") on the last business day of the prior calendar month.

KU entered into a $400 million syndicated credit facility on November 1, 2010. Under the facility, KU has the ability to make cash borrowings and to request the lenders to issue letters of credit. Borrowings generally bear interest at LIBOR-based rates plus a spread, depending upon the company's senior unsecured long-term debt rating. No borrowings have occurred under the facility.

In February 2012, KU established a commercial paper program for up to $250 million to provide an additional financing source to fund its short-term liquidity needs. Commercial paper issuances will be supported by KU's syndicated credit facilities. On April 18, 2012, KU issued $1,000,000 overnight at a rate of .41% as a test trade. Interest for issuances are based on market rates determined by the commercial paper dealer. No other commercial paper borrowings have occurred during 2012.

KU - Money Pool Borrowings

Month/Year	Average Daily Balance	Average Interest Rate
January-07	$76,576,024.59	5.270%
February-07	$67,629,674.69	5.260%
March-07	$66,906,116.50	5.260%
April-07	$34,358,505.61	5.260%
May-07	$89,762,741.50	5.260%
June-07	$126,776,634.65	5.260%
July-07	$149,287,272.75	5.280%
August-07	$193,959,429.00	5.240%
September-07	$169,563,279.81	5.620%
October-07	$85,925,304.00	5.050%
November-07	$57,195,247.55	4.720%
December-07	$73,478,760.25	4.750%
January-08	$26,481,204.00	4.980%
February-08	$34,988,292.71	3.080%
March-08	$43,500,047.75	3.080%
April-08	$51,952,034.65	2.630%
May-08	$79,860,329.00	2.840%
June-08	$73,191,389.48	2.430%
July-08	$102,288,454.00	2.450%
August-08	$132,249,735.25	2.440%
September-08	$114,129,099.16	2.450%
October-08	$97,178,922.75	4.950%
November-08	$118,573,099.16	2.950%
December-08	$83,309,297.75	1.490%
January-09	$14,894,563.38	0.5400%
February-09	$13,612,087.33	0.7900%
March-09	$16,073,469.15	0.7500%
April-09	$27,064,244.32	0.5500%
May-09	$53,960,235.25	0.4000%
June-09	$80,707,212.06	0.3000%
July-09	$39,338,391.50	0.3500%
August-09	$0.00	0.3000%
September-09	$0.00	0.2500%
October-09	$5,872,891.50	0.2200%
November-09	$8,062,566.90	0.2200%
December-09	$8,815,654.00	0.2000%
January-10	$51,871,797.75	0.2000%
February-10	$52,730,264.34	0.2000%
March-10	$38,074,954.00	0.2100%
April-10	$17,071,308.84	0.2100%
May-10	$50,661,454.00	0.2300%
June-10	$68,316,179.81	0.3400%
July-10	$74,533,204.00	0.3500%
August-10	$63,809,922.75	0.2800%

Month/Year	Average Daily Balance	Average Interest Rate
September-10	$27,766,502.39	0.2800%
October-10	$41,761,105.52	0.2500%
November-10	$51,247,722.06	0.2500%
December-10	$3,593,312.50	0.2500%
January-11	$10,781,562.50	0.2500%
February-11	$5,689,379.31	0.2500%
March-11	$0.00	0.2500%
April-11	$0.00	0.2000%
May-11	$0.00	0.1900%
June-11	$0.00	0.1600%
July-11	$0.00	0.1600%
August-11	$0.00	0.1200%
September-11	$0.00	0.1700%
October-11	$0.00	0.1700%
November-11	$0.00	0.1300%
December-11	$0.00	0.4500%
January-12	$0.00	0.5000%
February-12	$0.00	0.4300%
March-12	$0.00	0.4100%
April-12	$0.00	0.4200%
May-12	$0.00	0.3900%
June-12	$691,800.00	0.4800%

KU - Commercial Paper Borrowings

Month/Year	Average Daily Balance	Average Interest Rate
April-12	$33,333.00	0.4100%
May-12	$0.00	0.0000%
June-12	$0.00	0.0000%

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Question No. 1-16

Responding Witness: Daniel K. Arbough

Q1-16. Please provide the amount of commitment fees and other fees related to each type or source of the Company's short-term debt that is included in the test year administrative and general expense by FERC account. In addition, please indicate whether each of the fees were included in the Company's cost of debt used in the weighted cost of capital.

A1-16. See the response to AG 1-179.

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Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-17

Responding Witness: William E. Avera

Q1-17. Please refer to page 45, lines 13-19 of Dr. Avera's Direct Testimony.

a. Provide any studies, articles, or other publications that support the use of a size premium being applicable specifically to regulated electric companies.

b. Is Dr. Avera aware of any studies that have refuted the application of a size premium in calculating a CAPM return for regulated electric companies? If so, please provide a copy of all such studies, articles, or other documents.

A1-17. a. Please refer to the attached copy of Annin, Michael, "Equity and the Small Stock Effect," Public Utilities Fortnightly (Oct. 15, 1995).

b. The impact of firm size on investors required rate of return has been examined in countless research studies. Dr. Avera has not undertaken a comprehensive review of the financial literature to identify each and every study that may have commented on the impact of firm size on expected rates of return for electric utilities. Dr. Avera has not reviewed any studies or articles that would lead him to alter the conclusions presented in his testimony that firm size is regarded as an important consideration in applying the CAPM model to estimate the cost of equity.

By Michael Annin

Equity and the Small-Stock Effect

The capital asset pricing model shows risk inherent in return on equity. But something goes wrong when it's used for small-sized companies.

Does the size of a company affect the rate of return it should earn? If smaller companies should earn a higher return than larger firms, then small utilities, because of their size, should be allowed to adjust the rates they charge to customers.

By far the most notable and well-documented apparent anomaly in the stock market is the effect of company size on equity returns. The first study focusing on the impact that company size exerts on security returns was performed by Rolf W. Banz. Banz sorted New York Stock Exchange (NYSE) stocks into quintiles based on their market capitalization (price per share times number of shares outstanding), and calculated total returns for a value-weighted portfolio of the stocks in each quintile. His results indicate that returns for companies from the smallest quintile surpassed all other quintiles, as well as the Standard & Poor's 500 and other large stock indices. A number of other researchers have replicated Banz's work in other countries; nevertheless, a consensus has not yet been formed on why small stocks behave as they do.

One explanation for the higher returns is the lack of information on small companies. Investors must search more diligently for data. For small utilities, investors face additional obstacles, such as a smaller customer base, limited financial resources, and a lack of diversification across customers, energy sources, and geography. These obstacles imply a higher investor return.

The Flaw in CAPM

One of the more common cost of equity models used in practice today is the capital asset pricing model (CAPM). The CAPM describes the expected return on any company's stock as proportional to the amount of systematic risk an investor assumes. The traditional CAPM formula can be stated as:

$$R_s = [\beta_s \times RP] + R_f$$

where:

R_s = expected return or cost of equity on the stock of company "s"

β = the *beta* of the stock of company "s"

RP = the expected equity risk premium

R_f = expected return on a riskless asset.

Table 1: The Size Premium in CAPM
(By Decile Portfolio in NYSE, 1926-94)

Decile	*Beta*	Arithmetic Mean Return	Actual Return in Excess of Riskless Rate**	CAPM Return in Excess of Riskless Rate**	Size Premium (Return in Excess CAPM)
1	0.90	11.01%	5.88%	6.33%	–0.44%
2	1.04	13.09	7.97	7.34	0.63
3	1.09	13.83	8.71	7.70	1.01
4	1.13	14.44	9.32	7.98	1.33
5	1.17	15.50	10.38	8.22	2.16
6	1.19	15.45	10.33	8.38	1.95
7	1.24	15.92	10.79	8.75	2.05
8	1.29	16.84	11.72	9.05	2.67
9	1.36	17.83	12.71	9.57	3.14
10	1.47	21.98	16.86	10.33	6.53

**Betas* are estimated from monthly returns in excess of the 20-year government bond income return, January 1926-December 1994.
**Historical riskless rate measured by the 69-year arithmetic mean income return component of 20-year government bonds.
Source: SBBI 1995 Yearbook

Table 2: CAPM vs. CAPM w/ Size Premium

(By Percentile for Electric, Gas, and Sanitary Services Utilities)

	CAPM	CAPM with Size Premium
90th Percentile	16.42%	18.92%
75th Percentile	12.56%	14.72%
Median	10.89%	12.58%
25th Percentile	9.86%	11.39%
10th Percentile	8.63%	10.65%

(Weighted by Market Capitalization)

	CAPM	CAPM with Size Premium
Industry Composite	11.76%	12.33%
Large Company Composite	12.05%	12.07%
Small Company Composite	13.93%	17.95%

Source: Cost of Capital Quarterly '95 Yearbook by Ibbotson Associates
Note: Public utilities include electric, gas, and sanitary services companies.

Table 1 shows *beta* and risk premiums over the past 69 years for each decile of the NYSE. It shows that a hypothetical risk premium calculated under the CAPM fails to match the actual risk premium, shown by actual market returns. The shortfall in the CAPM return rises as company size decreases, suggesting a need to revise the CAPM.

The risk premium component in the actual returns (realized equity risk premium) is the return that compensates investors for taking on risk equal to the risk of the market as a whole (estimated by the 69-year arithmetic mean return on large company stocks, 12.2 percent, less the historical riskless rate). The risk premium in the CAPM returns is *beta* multiplied by the realized equity risk premium.

The smaller deciles show returns not fully explainable by the CAPM. The difference in risk premiums (realized versus CAPM) grows larger as one moves from the largest companies in decile 1 to the smallest in decile 10. The difference is especially pronounced for deciles 9 and 10, which contain the smallest companies.

Based on this analysis, we modify the CAPM formula to include a small-stock premium. The modified CAPM formula can be stated as follows:

$$R_s = [\beta_s \times RP] + R_f + SP$$

where:

SP = small-stock premium.

Because the small-stock premium can be identified by company size, the appropriate premium to add for any particular company will depend on its equity capitalization. For instance, a utility with a market capitalization of $1 billion would require a small capitalization adjustment of approximately 1.3 percent over the traditional CAPM; at $400 million, approximately 2.1 percent, and at only $100 million, approximately 4 percent.

Again, these additions to the traditional CAPM represent an adjustment over and above any increase already provided to these smaller companies by having higher *betas*.

Implications for Smaller Utilities

These findings carry important ramifications for relatively small public utilities. Boosting the traditional CAPM return by a full 400 basis points for small utilities translates into a substantial premium over larger utilities.

Table 2 shows the results of an analysis of 202 utility companies that calculated cost of equity figures. Composites (arithmetic means) weighted by equity capitalization were also calculated for the largest and smallest 20 companies. The results show the impact size has on cost of equity.

For the traditional CAPM, the large-company composite shows a cost of equity of 12.05 percent; the small company composite, 13.93 percent. However, once the respective small capitalization premium is added in, the spread increases dramatically, to 12.07 and 17.95 percent, respectively. Clearly, the smaller the utility (in terms of equity capitalization), the larger the impact that size exerts on the expected return of that security. ▼

Michael Annin, CFA, is a senior consultant with Ibbotson Associates, specializing in business valuation and cost of capital analysis. He oversees the Cost of Capital Quarterly, *a reference work on using cost of capital for company valuations.*

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Question No. 1-18

Responding Witness: Ronald L. Miller

Q1-18. Refer to the table at the bottom of page 3 of Mr. Blake's Direct Testimony. Please provide the accumulated deferred income taxes at the same dates by temporary difference and in total.

A1-18. The accumulated deferred income tax per the balance sheet, including "below the line" accumulated deferred income tax, at requested dates are shown below.

	October 31, 2009	March 31, 2012
Plant related accumulated deferred income taxes	$(303,534,491)	$(523,563,694)
Other accumulated deferred income taxes	(31,415,048)	26,879,247
Total accumulated deferred income tax liability	$(334,949,539)	$(496,684,447)

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Question No. 1-19

Responding Witness: Lonnie E. Bellar

Q1-19. Refer to Exhibit 1 Schedule 1.00 attached to Mr. Blake's Direct Testimony. Please separate the unbilled revenues amounts into base, FAC, ECR, DSM, and any other surcharge.

A1-19. See attached.

Kentucky Utilities Company
Case No. 2012-00221
Unbilled Revenue

	Base	DSM	FAC	ECR	Total
March 31, 2012	$ 53,643,000	$ 663,000	$ 346,000	$ 1,875,000	$ 56,527,000
March 31, 2011	59,354,000	851,000	(92,000)	1,521,000	61,634,000
Decrease/(Increase) in Unbilled Revenues	$ 5,711,000	$ 188,000	$ (438,000)	$ (354,000)	$ 5,107,000

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Question No. 1-20

Responding Witness: Robert M. Conroy

Q1-20. Please provide a copy of the Company's environmental surcharge filings for the months April 2010 through the most recent month available.

A1-20. See attached.

The attachment is being provided in a separate file.

KENTUCKY UTILITIES COMPANY

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Question No. 1-21

Responding Witness: Daniel K. Arbough

Q1-21. Please provide all supporting documentation, analyses, and spreadsheets that support KU's requested capital structure in this proceeding.

A1-21. See the response to Question No. 14.

KENTUCKY UTILITIES COMPANY

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Response to First Set of Data Requests of
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Dated July 31, 2012

Question No. 1-22

Responding Witness: Cheryl E. Bruner

Q1-22. Refer to page 6 lines 16-19 of Mr. Staffieri's Direct Testimony. Please provide separately the number of residential service center customer service agents and business service center customer service agents at the beginning of June 2011 and at February 20, 2012.

A1-22. See the response to PSC 2-40.

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Dated July 31, 2012

Question No. 1-23

Responding Witness: Paul W. Thompson

Q1-23. Please provide the annualized non-fuel O&M expense during the test year for TC2 attributable to KU. Provide this information by FERC account if available at this level of detail.

A1-23. See attached.

TRIMBLE COUNTY UNIT 2 - OPEX Expenses for twelve months ending March 31, 2012

					LG&E & KU Company Split	
FERC ACCOUNT (6 Digit)	ACCOUNT DESCRIPTION	TOTAL ($000's)	IMEA/IMPA Portion	Net TC2 Expense	LG&E 19%	KU 81%
500100	OPER SUPER/ENG	$765	$191	$574	$109	$465
500900	OPER SUPER/ENG - INDIRECT	$178	$45	$134	$25	$108
501090	FUEL HANDLING	$1,251	$313	$938	$178	$760
501990	FUEL HANDLING - INDIRECT	$0	$0	$0	$0	$0
502002	BOILER SYSTEMS OPR	$125	$31	$94	$18	$76
502004	SDRS-H2O SYS OPR	$105	$26	$78	$15	$64
502100	STM EXP(EX SDRS.SPP)	$1,608	$402	$1,206	$229	$977
502900	STM EXP(EX SDRS.SPP) - INDIRECT	$2	$0	$1	$0	$1
505100	ELECTRIC SYS OPR	$998	$250	$749	$142	$606
506001	STEAM OPERATION-AIR QUALITY MONITORING AND CONTROL EQUIPMENT	$22	$5	$16	$3	$13
506100	MISC STM PWR EXP	$855	$214	$641	$122	$520
506105	OPERATION OF SCR/NOX REDUCTION EQUIP	$49	$12	$36	$7	$30
506900	MISC STM PWR EXP - INDIRECT	$0	$0	$0	$0	$0
510100	MTCE SUPER/ENG - STEAM	$504	$126	$378	$72	$306
511100	MTCE-STRUCTURES	$962	$241	$722	$137	$585
512005	MAINTENANCE-SDRS	$479	$120	$359	$68	$291
512011	INSTR/CNTRL-ENVRNL	$139	$35	$105	$20	$85
512015	SDRS-COMMON H2O SYS	$878	$220	$659	$125	$534
512017	MTCE-SLUDGE STAB SYS	$55	$14	$41	$8	$33
512100	MTCE-BOILER PLANT	$4,037	$1,009	$3,028	$575	$2,453
512101	MAINTENANCE OF SCR/NOX REDUCTION EQUIP	$44	$11	$33	$6	$27
512102	SORBENT INJECTION MAINTENANCE	$20	$5	$15	$3	$12
513100	MTCE-ELECTRIC PLANT	$687	$172	$515	$98	$418
513900	MTCE-ELECTRIC PLANT - BOILER	$12	$3	$9	$2	$7
514100	MTCE-MISC/STM PLANT	$451	$113	$338	$64	$274
		$14,227	**$3,557**	**$10,671**	**$2,027**	**$8,643**

KENTUCKY UTILITIES COMPANY

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Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-24

Responding Witness: Paul W. Thompson

Q1-24. Refer to page 9 lines 16-21 of Mr. Thompson's Direct Testimony.

a. Please provide a copy of all analyses performed that quantify the increased O&M costs associated with TC2 of $11 million.

b. Please provide the amount of increased costs in the test year attributable to KU for the O&M costs related to TC2.

A1-24. a. The costs by FERC account are provided in the response to Question No. 1-23. The costs were compiled by the TC2 location number.

b. The KU portion of TC2 O&M costs in the test year is $8.643 million.

KENTUCKY UTILITIES COMPANY

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Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-25

Responding Witness: Paul W. Thompson

Q1-25. Refer to page 10 lines 1-5 of Mr. Thompson's Direct Testimony.

a. Please indicate whether the additional labor costs for the nineteen additional persons working at the Trimble County Station are costs in addition to the additional O&M costs cited in the previous question associated with TC2 of $11 million.

b. Please provide the amount of increased costs in the test year attributable to KU for the nineteen additional persons at the Trimble County Station.

A1-25. a. The labor costs are included in the $11 million (net of IMEA and IMPA) number provided for TC2 O&M.

b. The KU portion of the labor is $1.32 million.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-26

Responding Witness: Paul W. Thompson

Q1-26. Refer to page 11 lines 12-15 of Mr. Thompson's Direct Testimony. Please provide the total maintenance outage expenses for KU for the test year and for each of the calendar years ended 2007 through 2011.

A1-26. See attached.

Rate Case Analysis - Outages (Nonlabor) KU

US$ 000

	Actuals					
	2007	2008	2009	2010	2011	TYE 31-Mar-2012
Trimble Co 2	-	-	-	-	233	292
Total	-	-	-	-	233	292
Ghent 1	5,574	55	2,722	2,379	1,737	3,709
Ghent 2	859	1,132	2,948	1,172	334	1,587
Ghent 3	2,334	896	1,117	356	9,851	9,124
Ghent 4	1,006	4,688	995	3,268	402	594
Total	9,772	6,771	7,782	7,175	12,324	15,014
Brown 1	3,563	512	214	697	326	333
Brown 1, 2, 3	276	349	28	-	79	65
Brown 2	500	9	3,250	548	1,147	1,162
Brown 3	1,716	952	956	2,135	2,003	1,827
Total	6,056	1,822	4,448	3,380	3,555	3,388
Green River 3	122	408	496	1,506	1	(0)
Green River 4	353	88	789	232	1,925	1,935
Total	475	496	1,285	1,738	1,926	1,935
Tyrone 1, 2	-	-	-	-	-	-
Tyrone 3	495	438	6	0	-	-
Total	495	438	6	0	-	-
Total Steam	16,798	9,528	13,520	12,293	18,037	20,629
Trimble Co 5	455	-	-	-	-	-
Trimble Co 6	9	463	-	-	-	-
Trimble Co 7	8	654	-	-	-	-
Trimble Co 8	8	6	12	-	-	-
Trimble Co 9	8	-	647	-	(2)	(2)
Trimble Co 10	8	601	-	-	-	-
Total	495	1,725	659	-	(2)	(2)
Paddy'S Run 13	-	164	-	2,159	500	20
Brown 5	-	-	-	58	81	20
Brown 6	1,453	20	91	400	5	(16)
Brown 7	11	1,336	(529)	18	5	(14)
Brown 8	-	-	155	-	-	-
Brown 9	-	-	-	-	-	-
Brown 10	-	-	-	-	-	-
Haefling 1	32	6	28	40	3	5
Haefling 2	8	1	19	45	3	3
Haefling 3	6	56	36	9	3	3
Total	1,511	1,420	(200)	570	100	0
Total CTs	2,006	3,309	459	2,729	598	19
Dix Dam	-	-	-	15	-	-
Grand Total	18,804	12,836	13,979	15,037	18,636	20,647

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-27

Responding Witness: Paul W. Thompson

Q1-27. Refer to page 20 lines 15-19 of Mr. Thompson's Direct Testimony. Please provide the amount of increased costs in the test year attributable to KU for the 27 additional employees added to help with NERC and CIP compliance.

A1-27. The KU amount is $1.566 million.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-28

Responding Witness: Cheryl E. Bruner

Q1-28. Refer to page 21 lines 7-10 of Mr. Hermann's Direct Testimony. Please provide a breakout of the increased costs of $3.5 annually between KU and LG&E.

A1-28. See the response to PSC 2-39.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-29

Responding Witness: Shannon L. Charnas

Q1-29. Refer to Exhibit 1, Schedule 1.12. Please provide the computation of the annualized depreciation expense contained in lines 1 through 3 in electronic format with all formulas intact.

A1-29. See the response to PSC 2-49 (b).

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-30

Responding Witness: Shannon L. Charnas

Q1-30. Refer to the summary report on pages III-4 through III-10 of the depreciation study performed by Mr. Spanos. Please provide a side-by-side comparison of current and proposed depreciation rates by FERC account and unit similar to the breakdown reflected in this summary depreciation schedule.

A1-30. See attached.

Kentucky Utilities Company
Depreciation Rate Comparison

Property Group		Current Rates ASL	Proposed Rates ASL
Intangible Plant			
301	Organization	0.00%	0.00%
302	Franchises and Consents	0.00%	18.78%
303	Miscellaneous Intangible Plant - Software	20.00%	15.28%
303.1	Customer Care Solution Software	10.00%	9.94%
Steam Production Plant			
310.00	Land	0.00%	0.00%
311.00	Structures and Improvements		
	5603 Tyrone Unit 3	0.00%	0.00%
	5604 Tyrone Units 1&2	0.00%	0.00%
	5613 Green River Unit 3	0.00%	0.00%
	5614 Green River Unit 4	0.00%	7.80%
	5615 Green River Units 1&2	0.00%	0.00%
	5621 Brown Unit 1	0.60%	0.46%
	5622 Brown Unit 2	0.08%	0.90%
	5623 Brown Unit 3	0.54%	1.90%
	5630 Brown Unit 1,2,3 Scrubber	2.65%	4.58%
	5643 Pineville Unit 3	0.00%	0.00%
	5651 Ghent Unit 1	0.39%	0.59%
	5650 Ghent Unit 1 Scrubber	2.65%	1.34%
	5652 Ghent Unit 2	0.50%	1.10%
	5658 Ghent Unit 2 Scrubber	2.65%	1.38%
	5653 Ghent Unit 3	1.19%	1.59%
	5654 Ghent Unit 4	1.41%	2.48%
	0321 Trimble County Unit 2	2.10%	1.90%
	0322 Trimble County Unit 2 Scrubber	2.10%	1.36%
	5591 System Laboratory	1.54%	0.99%
312.00	Boiler Plant Equipment		
	5603 Tyrone Unit 3	3.99%	7.74%
	5604 Tyrone Units 1&2	0.14%	0.00%
	5613 Green River Unit 3	3.08%	7.59%
	5614 Green River Unit 4	4.20%	7.57%
	5615 Green River Units 1&2	2.18%	0.00%
	5621 Brown Unit 1	2.98%	3.25%
	5622 Brown Unit 2	3.01%	2.98%
	5623 Brown Unit 3	2.80%	2.67%
	5630 Brown Unit 1,2,3 Scrubber	3.87%	4.58%
	5643 Pineville Unit 3	0.00%	0.00%
	5650 Ghent Unit 1 Scrubber	3.87%	4.02%
	5651 Ghent Unit 1	3.84%	2.93%
	5652 Ghent Unit 2	2.33%	1.81%
	5658 Ghent Unit 2 Scrubber	3.87%	2.43%

Kentucky Utilities Company
Depreciation Rate Comparison

Property Group		Current Rates ASL	Proposed Rates ASL
	5653 Ghent Unit 3	2.63%	2.31%
	5660 Ghent 3 FGD	3.87%	3.74%
	5654 Ghent Unit 4	2.79%	2.60%
	5661 Ghent Unit 4 Scrubber	3.87%	3.83%
	0321 Trimble County Unit 2	4.28%	2.19%
	0322 Trimble County Unit 2 Scrubber	4.28%	2.06%
314.00	Turbogenerator Units		
	5603 Tyrone Unit 3	3.44%	7.71%
	5604 Tyrone Units 1&2	0.00%	0.00%
	5613 Green River Unit 3	2.90%	5.29%
	5614 Green River Unit 4	3.79%	4.55%
	5621 Brown Unit 1	1.12%	2.87%
	5622 Brown Unit 2	2.91%	1.86%
	5623 Brown Unit 3	3.17%	1.86%
	5651 Ghent Unit 1	2.23%	2.67%
	5652 Ghent Unit 2	2.08%	2.24%
	5653 Ghent Unit 3	2.03%	2.08%
	5654 Ghent Unit 4	2.20%	2.43%
	0321 Trimble County Unit 2	2.78%	2.19%
315.00	Accessory Electric Equipment		
	5603 Tyrone Unit 3	0.00%	14.65%
	5604 Tyrone Units 1&2	0.00%	0.00%
	5613 Green River Unit 3	0.00%	16.16%
	5614 Green River Unit 4	1.46%	10.53%
	5621 Brown Unit 1	2.10%	1.61%
	5622 Brown Unit 2	0.48%	2.20%
	5623 Brown Unit 3	0.54%	1.49%
	5630 Brown Unit 1,2,3 Scrubber	2.70%	4.55%
	5650 Ghent Unit 1 Scrubber	2.70%	3.89%
	5651 Ghent Unit 1	0.55%	0.87%
	5652 Ghent Unit 2	0.60%	1.65%
	5658 Ghent Unit 2 Scrubber	2.70%	4.70%
	5653 Ghent Unit 3	1.03%	1.59%
	5660 Ghent 3 Scrubber	2.70%	3.75%
	5654 Ghent Unit 4	1.22%	1.76%
	5661 Ghent 4 Scrubber	2.70%	3.86%
	0321 Trimble County Unit 2	2.49%	2.01%
	0322 Trimble County Unit 2 Scrubber	2.49%	1.56%
316.00	Miscellaneous Plant Equipment		
	5603 Tyrone Unit 3	3.12%	16.28%
	5604 Tyrone Units 1&2	0.00%	0.00%
	5613 Green River Unit 3	3.97%	10.87%

Kentucky Utilities Company
Depreciation Rate Comparison

	Property Group	Current Rates ASL	Proposed Rates ASL
	5614 Green River Unit 4	2.71%	12.87%
	5615 Green River Units 1&2	0.00%	0.00%
	5621 Brown Unit 1	2.26%	1.86%
	5622 Brown Unit 2	0.71%	0.37%
	5623 Brown Unit 3	2.33%	2.40%
	5650 Ghent Unit 1 Scrubber	2.87%	1.46%
	5651 Ghent Unit 1	1.38%	1.03%
	5652 Ghent Unit 2	1.07%	0.92%
	5653 Ghent Unit 3	1.40%	1.36%
	5654 Ghent Unit 4	2.03%	2.98%
	0321 Trimble County Unit 2	3.00%	2.31%
	5591 System Laboratory	2.74%	2.70%
Hydraulic Production Plant			
	5691 Dix Dam		
	330.10 Land Rights	0.00%	0.00%
	331.00 Structures and Improvements	1.29%	1.74%
	332.00 Reservoirs, Dams & Waterways	0.72%	2.59%
	333.00 Water Wheels, Turbines and Generators	0.66%	3.77%
	334.00 Accessory Electric Equipment	0.83%	3.65%
	335.00 Misc. Power Plant Equipment	3.55%	4.56%
	336.00 Roads, Railroads and Bridges	0.00%	4.19%
Other Production Plant			
340.10	Land Rights - 5645 Brown CT 9 Gas Pipeline	2.97%	2.24%
340.20	Land	0.00%	0.00%
341.00	Structures and Improvements		
	5697 Paddy's Run CT 13	3.03%	3.88%
	5635 Brown CT 5	3.04%	3.88%
	5636 Brown CT 6	3.05%	4.25%
	5637 Brown CT 7	2.93%	4.11%
	5638 Brown CT 8	2.60%	3.80%
	5639 Brown CT 9	2.60%	2.81%
	5640 Brown CT 10	2.61%	3.00%
	5641 Brown CT 11	2.72%	4.00%
	0470 Trimble County CT 5	3.14%	3.87%
	0471 Trimble County CT 6	3.12%	3.86%
	0474 Trimble County CT 7	3.32%	3.80%
	0475 Trimble County CT 8	3.32%	3.80%
	0476 Trimble County CT 9	3.32%	3.82%
	0477 Trimble County CT 10	3.32%	3.82%
	5696 Haefling CT 1,2,&3	6.47%	10.24%
342.00	Fuel Holders, Producers and Accessories		
	5697 Paddy's Run CT 13	3.11%	3.80%

Kentucky Utilities Company
Depreciation Rate Comparison

	Property Group	Current Rates ASL	Proposed Rates ASL
	5635 Brown CT 5	3.11%	4.78%
	5636 Brown CT 6	2.92%	5.92%
	5637 Brown CT 7	2.92%	5.99%
	5638 Brown CT 8	2.63%	7.25%
	5639 Brown CT 9	2.65%	3.33%
	5640 Brown CT 10	2.63%	4.96%
	5641 Brown CT 11	2.74%	6.43%
	5645 Brown CT 9 Gas Pipeline	2.57%	2.87%
	0470 Trimble County CT 5	3.21%	3.78%
	0471 Trimble County CT 6	3.21%	3.78%
	0473 Trimble County CT Pipeline	3.23%	3.44%
	0474 Trimble County CT 7	3.42%	3.72%
	0475 Trimble County CT 8	3.42%	3.72%
	0476 Trimble County CT 9	3.42%	3.73%
	0477 Trimble County CT 10	3.42%	3.74%
	5696 Haefling CT 1,2,&3	0.00%	10.62%
343.00	Prime Movers		
	5697 Paddy's Run CT 13	3.62%	4.53%
	5635 Brown CT 5	3.65%	4.33%
	5636 Brown CT 6	3.55%	5.24%
	5637 Brown CT 7	3.58%	5.15%
	5638 Brown CT 8	3.30%	5.45%
	5639 Brown CT 9	3.23%	3.43%
	5640 Brown CT 10	3.26%	3.49%
	5641 Brown CT 11	3.41%	4.65%
	0470 Trimble County CT 5	3.72%	4.04%
	0471 Trimble County CT 6	3.72%	4.43%
	0474 Trimble County CT 7	3.91%	3.99%
	0475 Trimble County CT 8	3.91%	3.99%
	0476 Trimble County CT 9	3.91%	4.04%
	0477 Trimble County CT 10	3.91%	4.04%
344.00	Generators		
	5697 Paddy's Run CT 13	2.94%	3.64%
	5635 Brown CT 5	2.94%	3.73%
	5636 Brown CT 6	2.76%	3.73%
	5637 Brown CT 7	2.76%	3.78%
	5638 Brown CT 8	2.46%	3.61%
	5639 Brown CT 9	2.31%	2.55%
	5640 Brown CT 10	2.46%	2.72%
	5641 Brown CT 11	2.53%	3.65%
	0470 Trimble County CT 5	3.04%	3.62%
	0471 Trimble County CT 6	3.04%	3.62%
	0474 Trimble County CT 7	3.26%	3.56%

Kentucky Utilities Company
Depreciation Rate Comparison

	Property Group	Current Rates ASL	Proposed Rates ASL
	0475 Trimble County CT 8	3.26%	3.56%
	0476 Trimble County CT 9	3.26%	3.57%
	0477 Trimble County CT 10	3.26%	3.57%
	5696 Haefling CT 1,2,&3	0.00%	2.31%
345.00	Accessory Electric Equipment		
	5697 Paddy's Run CT 13	2.88%	3.78%
	5635 Brown CT 5	2.89%	4.06%
	5636 Brown CT 6	2.71%	4.17%
	5637 Brown CT 7	2.71%	4.18%
	5638 Brown CT 8	2.41%	4.26%
	5639 Brown CT 9	2.32%	3.19%
	5640 Brown CT 10	2.44%	3.17%
	5641 Brown CT 11	2.48%	4.55%
	0470 Trimble County CT 5	2.98%	3.80%
	0471 Trimble County CT 6	2.98%	4.12%
	0474 Trimble County CT 7	3.19%	3.69%
	0475 Trimble County CT 8	3.19%	3.69%
	0476 Trimble County CT 9	3.19%	3.71%
	0477 Trimble County CT 10	3.19%	3.92%
	5696 Haefling CT 1,2,&3	0.00%	8.05%
346.00	Miscellaneous Plant Equipment		
	5697 Paddy's Run CT 13	3.20%	4.04%
	5635 Brown CT 5	3.20%	4.06%
	5636 Brown CT 6	3.33%	4.47%
	5637 Brown CT 7	3.23%	4.25%
	5638 Brown CT 8	2.77%	4.70%
	5639 Brown CT 9	2.77%	2.99%
	5640 Brown CT 10	2.85%	3.40%
	5641 Brown CT 11	3.22%	5.04%
	0470 Trimble County CT 5	3.73%	4.04%
	0474 Trimble County CT 7	3.50%	3.97%
	0475 Trimble County CT 8	3.50%	3.97%
	0476 Trimble County CT 9	3.50%	3.98%
	0477 Trimble County CT 10	3.49%	4.59%
	5696 Haefling CT 1,2,&3	0.00%	1.67%
Transmission Plant			
	350.1 Land Rights	0.98%	0.96%
	350.2 Land	0.00%	0.00%
	352.1 Structures and Improvements-Non System Control	1.54%	1.75%
	352.2 Structures and Improvements-System Control	1.43%	1.58%
	353.1 Station Equipment	1.98%	1.67%
	353.2 System Control - Microwave Equipment	0.46%	0.00%

Kentucky Utilities Company
Depreciation Rate Comparison

Property Group	Current Rates ASL	Proposed Rates ASL
354 Towers & Fixtures	1.21%	1.36%
355 Poles & Fixtures	2.28%	2.34%
356 Overhead Conductors and Devices	1.79%	1.94%
357 Underground Conduit	2.60%	2.27%
358 Underground Conductors & Devices	1.26%	0.98%
Distribution Plant		
360.1 Land Rights	0.65%	0.58%
360.2 Land	0.00%	0.00%
360.2 Land (Plant Held for Future Use)	0.00%	0.00%
361 Structures and Improvements	1.65%	2.00%
362 Station Equipment	2.28%	2.27%
364 Poles Towers & Fixtures	2.30%	2.33%
365 Overhead Conductors and Devices	2.70%	3.23%
366 Underground Conduit	1.93%	2.70%
367 Underground Conductors & Devices	2.09%	2.37%
368 Line Transformers	3.10%	2.45%
369 Services	1.99%	2.03%
370 Meters	1.76%	2.29%
371 Installations on Customer Premises	2.38%	0.81%
373 Street Lighting & Signal Systems	2.29%	4.00%
General Plant		
389.2 Land	0.00%	0.00%
390.1 Structures & Improvements	1.66%	2.01%
390.2 Improvements to Leased Property	1.56%	1.72%
391.1 Office Furniture & Equipment	4.19%	4.46%
391.2 Non PC Computer Equipment	10.14%	21.58%
391.31 PC Equipment	15.47%	8.93%
392.10 Transportation Equipment - Cars & Light Trucks	20.00%	2.44%
392.30 Transportation Equipment - Heavy Trucks and Other	20.00%	0.54%
393 Stores Equipment	5.25%	5.07%
394 Tool, Shop & Garage Equipment	4.75%	4.27%
396.30 Power Operated Equipment - Large Machinery	6.37%	8.89%
397.10 Communication Equipment - General Assets	7.13%	5.70%
397.20 Communication Equipment - Specific Assets	7.13%	3.75%
397.30 Communication Equipment - Fully Accrued	7.13%	0.00%

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-31

Responding Witness: Ronald L. Miller

Q1-31. Refer to page 22 lines 9-11 of Mr. Blake's Direct Testimony. Please describe in detail the "proposed change in Trimble County Unit 2's ("TC2") service life."

A1-31. The service life change was the result of using the probable retirement date of 2066 listed in the summary report of the depreciation study performed by Mr. Spanos, page II-27, based on an in-service date of 2011.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-32

Responding Witness: Daniel K. Arbough

Q1-32. Refer to Exhibit 1, Schedule 1.19. Please provide a copy of all source documentation related to the 2012/2013 renewal premium amount of $4,537,049 depicted on line 2.

A1-32. See attached.

DISBURSEMENT REQUEST

(Corporate Policy & Procedures are on Intranet)

Specify Company:

___ Louisville Gas & Electric Company (Utility)

X Servco

SEND CHECK TO: Please wire to the instructions below

DUE DATE: ~~ASAP~~ 4-23-12

ACCOUNTING DISTRIBUTION						
CO. PRODUCT	RC	HC	ACCOUNT	EXP. TYPE	LOCATION	
PROJECT	TASK			EXP TYPE	EXP ORG	AMOUNT
118418	PREPDINS			0674	026350	$4,188,045.65
118419	PREPDINS			0674	026350	$4,537,049.45
					TOTAL	$8,725,095.10

orm SD 71-A
ev. 7/98

Supplier Name	Marsh USA Inc.
	Wiring Instructions
Address:	Marsh Inc. Philadelphia
	Bank of NY Mellon
	ABA# 043-000-261
	Account# 185-8914
	Invoice #322191 LG&E and KU Energy LLC
Business Purpose:	LG&E and KU Energy LLC Master Property
	Renewal 04/01/2012 - 04/01/2013
	Prepared by signature: Date: Jeff Rausch 4/13/2012
	Certified by signature: Date: 4/13/2012
	Approved by signature: Date: 4/18/12
	Approver title: CFO ~~Treasurer~~

Attachment to Response to KU KIUC-1 Question No. 32
Page 1 of 2
Arbough

MasterPropertyrenewal LGE-KU 4-1-11-12.xlsx

MARSH

Marsh USA Inc.
Philadelphia, PA - 205
215-246-1000

Invoice No.
322191

ORIGINAL INVOICE

Date: 4/11/12

John Diacogiannis
LG&E and KU Energy LLC
c/o PPL Corp. Risk & Insurance
Two North Ninth St. (GENTW8)
Allentown, PA 18101-1179

Effective Date	Expiration Date	Client No.
4/01/12	4/01/13	S27324

Policyholder: PPL CORP

ORIGINAL   Billing Effective Date: 4/01/12

Insurer	Policy No.	Type of Coverage / Item	Amount
FACTORY MUTUAL	LS014	PROP/ALL RISK PREMIUM	3,940,186.00
		PROP/ALL RISK POLICY FEE	150,000.00
		PROP/ALL RISK PREMIUM	1,047,391.00
		PROP/ALL RISK PREMIUM TAX	198,068.00
AEGIS	L0117A1A12	PROP/ALL RISK PREMIUM	1,477,570.00
		PROP/ALL RISK SURPLUS LN TAX	48,227.88
ENERGY	310608-12GP	PROP/ALL RISK PREMIUM	1,149,221.00
		PROP/ALL RISK SURPLUS LN TAX	36,545.22
FACTORY MUTUAL	LS014	TER & POL VIOL PREMIUM	438,907.00
AEGIS	L0117A1A12	TER & POL VIOL PREMIUM	130,026.00
ENERGY	310608- 12GP	TER & POL VIOL PREMIUM	68,953.00
FEE BILLING	PROPERTY CONSULTIN	PROP CONSULTG FEE	40,000.00
		REMIT IN: UNITED STATES DOLLARS	

Please indicate Invoice # 322191
on your remittance to:

Marsh USA Inc.
P. O. Box 371237
Pittsburgh, PA 15251-7237

TOTAL: 8,725,095.10

Invoice Is Payable In Full Upon Receipt

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-33

Responding Witness: Lonnie E. Bellar

Q1-33. Refer to Exhibit 1, Schedule 1.23, line 6. Please confirm that the Company expects the 2009 Rate Case Regulatory Asset to be fully amortized at the end of October 2012. If not confirmed, please indicate when it will be fully amortized.

A1-33. No, the Company expects the Rate Case expenses related to the 2009 Kentucky Rate Case Regulatory Asset will be fully amortized as of 7/31/2013.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-34

Responding Witness: Daniel K. Arbough

Q1-34. Please describe how the Company uses short term debt, i.e., to finance construction prior to refinancing with permanent capital, short term working capital, etc.

A1-34. KU funds capital projects with short-term debt, typically in the form of money pool loans, commercial paper or loans under bank lines of credit, until the Company believes the short-term balance will be permanently in the range of $250 million or above. At that time, the Company will issue long-term debt to reduce the amount of outstanding short-term debt. If market conditions are attractive and the Company believes long-term rates will increase before the short-term debt balances reach $250 million, the Company may choose to issue long-term bonds in advance of the need for the cash to fund capital projects.

The Company also uses short-term debt to fund various working capital needs. The Company believes it is critical to maintain sufficient liquidity availability in its financing arrangements.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-35

Responding Witness: Daniel K. Arbough

Q1-35. Refer to page 7 lines 10-15 of Mr. Arbough's Direct Testimony. Please explain why the Company did not have short term debt outstanding at March 31, 2012, given the various available sources of short term debt cited.

A1-35. As discussed in the response to Question No. 34, the Company uses short-term debt to finance working capital and to fund capital expenditures until the balance is sufficient enough to justify the issuance of long-term debt. The response to Question No. 34 also referenced the possibility of issuing debt in advance of needs for capital expenditures. KU did not have any short-term debt outstanding at March 31, 2012 because the Company took advantage of attractive markets in November 2010 and replaced all of its long-term and short-term intercompany debt with long-term debt and had cash remaining to use for future working capital and capital expenditure needs.

It was prudent to borrow the additional funds at the time of the issuance in November 2010 because the interest rates were at very low levels and the Company was not certain the low rates would last until KU had needs sufficient enough to justify another long-term bond. The interest rate on the intercompany loans in place prior to the debt issuance was approximately 5.50% whereas the average rate on the new bonds was approximately 3.98%, and this reduction was realized in spite of extending the average maturity of the debt portfolio by over 10 years.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-36

Responding Witness: Daniel K. Arbough

Q1-36. Refer to page 2 line 8 through page 4 line 14 of Mr. Arbough's Direct Testimony. Please provide the Company's computation as of March 31, 2012 of its capital structure in accordance with the S&P's guidelines. Provide support for each component of the imputed debt equivalents, including the Company's computation of the net present value of these obligations and the discount factor, if any, that was applied to the net present value, e.g., 30% or 50% commonly used by the rating agencies to quantify the debt equivalent, and all other assumptions, data and computations that were reflected in the Company's computation.

A1-36. Refer to page 6 of Exhibit 5 of Mr. Arbough's testimony where S&P's adjustments to debt are provided. S&P does not provide KU with supporting documentation of its calculations used in computing the various components of imputed debt. Without knowing S&P's assumptions, KU cannot duplicate S&P's calculation of imputed debt using data available as of March 31, 2012. See attached for a calculation of KU's capital structure as of March 31, 2012, which includes imputed debt amounts provided by S&P in Exhibit 5 of Mr. Arbough's testimony.

Kentucky Utilities Company
Capital Structure
3/31/12

Long-term debt - including current portion	1,841
Short-term debt	-
Imputed Debt (per S & P)	184
Total Debt	2,025
Total Equity	2,138
Total Capitalization	4,163
Equity / Capital %	51.4%

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-37

Responding Witness: Daniel K. Arbough

Q1-37. Please provide a copy of all internal guidelines or policies for the use of short term debt.

A1-37. KU does not have a written policy or guidelines for the use of short-term debt. As noted in the response to Question No. 34, the Company does have an established operating practice of keeping short-term debt below $250 million to maintain liquidity availability to respond to unanticipated cash needs or adverse long-term debt market conditions. The outstanding balances will regularly move within this range as a result of working capital and capital project funding needs.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-38

Responding Witness: Valerie L. Scott

Q1-38. Refer to the Company's affiliate relationship with Ohio Valley Electric Corporation ("OVEC").

a. Please provide a detailed description of OVEC.

b. Please provide a history by year of annual OVEC dividends to the Company both before tax and after tax, by FERC account since the Company first invested in OVEC.

c. Please provide the OVEC dividends to the Company during the test year both before tax and after tax, by FERC account.

d. Please provide a history by year of the income statement effect of the OVEC dividends to the Company both before tax and after tax, if any, by FERC account since the Company first invested in OVEC.

e. Please provide the test year income statement effect of the OVEC dividends to the Company both before tax and after tax, if any, by FERC account.

f. Please provide a history of annual OVEC earnings included on the Company's income statement both before tax and after tax, if any, by FERC account since the Company first invested in OVEC.

g. Please provide the test year income statement effect of the OVEC earnings included on the Company's income statement both before and after tax, if any, by FERC account.

h. Please provide a "Rollforward" schedule for the Company's OVEC Investment through the end of the test year ended March 31, 2012.

i. Please provide a history by year of the Company's investment in OVEC since the Company first invested in OVEC.

j. Please provide a history of the Company’s investment in OVEC from December 31, 2011 through March 31, 2012.

A1-38. a. KU has an investment in OVEC, which is accounted for using the cost method. KU and eleven other electric utilities are equity owners in OVEC, located in Piketon, Ohio. OVEC owns and operates two coal-fired plants, Kyger Creek Plant in Ohio and Clifty Creek Plant in Indiana, with combined nameplate generating capacities of 2,390 MW. OVEC's power is currently supplied to KU and 12 other companies affiliated with the various owners. KU owns 2.5% of OVEC's common stock. Pursuant to a power purchase agreement KU is contractually entitled to its ownership percentage of OVEC's output, which is 60 MW.

KU's investment in OVEC is not significant. The direct exposure to loss as a result of KU's involvement with OVEC is generally limited to the value of its investment; however, KU may be conditionally responsible for a pro-rata share of certain OVEC obligations.

b. All dividends were recorded in FERC account 419.

Kentucky Utilities Company
Dividends from OVEC*

Year	Dividend Earnings	Net After Tax Dividend Earnings
1998	$ 67,875	$ 60,748
1999	57,750	51,686
2000	54,375	48,666
2001	92,500	82,788
2002	52,500	46,988
2003	45,000	40,275
2004	45,000	40,275
2005	50,000	44,750
2006	95,000	85,025
2007	112,500	100,688
2008	137,500	123,063
2009	78,750	70,481
2010	51,250	45,869
2011	25,000	22,375
March 31, 2012 – Year to Date	6,250	5,594
Test Year	25,000	22,375

* Data provided is through the end of the test year and the fourteen years previous that was readily available.

c. KU recorded $25,000 in dividends (net of tax $22,375) for the 12-months ended March 31, 2012. All dividends were recorded in account 419.

d. See response to part b.

e. See response to part c.

f. KU's investment in OVEC is accounted for using the cost method of accounting; therefore there is no income statement impact of OVEC earnings.

g. See response to part f.

h. KU's investment in OVEC is accounted for using the cost method of accounting; therefore there is no change in the investment balance.

i. The Company has not made any additional investments subsequent to the initial investment of $250,000.

j. There have been no changes in the Company's investment in OVEC from December 31, 2011 through March 31, 2012.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-39

Responding Witness: Valerie L. Scott

Q1-39. Refer to the Company's affiliate relationship with Electric Energy, Inc. ("EEI").

a. Please provide a detailed description of EEI.

b. Please provide a history by year of annual EEI dividends to the Company both before tax and after tax, by FERC account since the Company first invested in EEI.

c. Please provide the EEI dividends to the Company during the test year both before tax and after tax, by FERC account.

d. Please provide a history by year of the income statement effect of the EEI dividends to the Company both before tax and after tax, if any, by FERC account since the Company first invested in EEI.

e. Please provide the test year income statement effect of the EEI dividends to the Company both before tax and after tax, if any, by FERC account.

f. Please provide a history of annual EEI earnings included on the Company's income statement both before tax and after tax, if any, by FERC account since the Company first invested in EEI.

g. Please provide the test year income statement effect of the EEI earnings included on the Company's income statement both before and after tax, if any, by FERC account.

h. Please provide a "Rollforward" schedule for the Company's EEI Investment through the end of the test year ended March 31, 2012.

i. Please provide a history by year of the Company's investment in EEI since the Company first invested in EEI.

j. Please provide a history of the Company's investment in EEI from December 31, 2011 through October 31, 2012.

A1-39. a. KU owns 20% of the common stock of EEI, which owns and operates a 1,000-Mw generating station in southern Illinois. Previously, KU was entitled to take 20% of the available capacity of the station under a pricing formula comparable to the cost of other power generated by KU. This contract governing the purchases from EEI terminated on December 31, 2005. Subsequent to December 31, 2005, EEI has sold power under general market-based pricing and terms. KU maintains its 20% ownership in the common stock of EEI. Replacement power for the EEI capacity has been largely provided by KU generation.

KU's direct exposure to loss as a result of its involvement with EEI is generally limited to the value of its investment. KU is not the primary beneficiary of EEI, and, therefore, it is not consolidated into the financial statements of KU. EEI is accounted for under the equity method of accounting.

b. All dividends are recorded in account 216.1.

Dividends from EEI*

Year	Dividends*
1996	$ 2,460,420
1997	2,443,622
1998	2,168,058
1999	2,366,775
2000	2,312,037
2001	2,060,553
2002	1,585,021
2003	-
2004	-
2005	-
2006	27,500,000
2007	21,400,000
2008	30,000,000
2009	10,850,000
2010	-
2011	-
March 31, 2012 – Year to Date	-

* Data provided is through the end of the test year and the sixteen years previous that was readily available. Dividends are accounted for as a reduction to undistributed earnings and are not shown net of tax.

c. KU did not record any dividends for the 12 months ended March 31, 2012.

d. KU's investment in EEI is accounted for using the equity method of accounting; therefore there is no income statement effect from EEI dividends.

e. See d. above.

f. All EEI earnings are recorded in FERC account 418, with the related taxes recorded in FERC account 410.

Kentucky Utilities Company
Earnings from EEI*

Year	Earnings	Net Earnings
1996	$ 2,436,136	1,452,851
1997	2,480,168	1,479,110
1998	2,167,436	1,292,605
1999	2,333,723	1,391,774
2000	2,242,280	1,337,240
2001	1,802,856	1,075,178
2002	6,967,101	4,155,005
2003	3,644,247	2,173,338
2004	2,559,212	1,526,250
2005	2,256,843	1,364,262
2006	29,405,773	17,775,790
2007	26,358,781	16,105,215
2008	29,548,519	18,054,145
2009	765,782	467,893
2010	3,761,027	2,297,987
2011	1,923,199	1,175,075
March 31, 2012 – Year to Date	(1,887,056)	(1,152,991)
Test Year	(1,243,444)	(759,744)

* Data provided is through the end of the test year and the sixteen years previous that was readily available.

g. Losses from EEI for the 12 months ended March 31, 2012 were ($1,243,444), ($759,744) net of tax recorded in FERC account 410 included in FERC account 418.

h. See attached.

i. In 1951, the Company's original investment was $350,000. In 1953 and 1958 the Company invested $270,000 and $675,800, respectively. Since then, the investment has been $1,295,800.

j. No investments were made in EEI from December 31, 2011 through March 31, 2012.

Kentucky Utilities Company
Rollforward of Investment in EEI

(a) Year	(b) Capital Stock Ownership (Initial Investment)	(c) Beginning Balance Equity in Earnings	(d) Earnings	(e) Dividends	(f) Net Activity	(g) Ending Balance Equity in Earnings	(h) Other Comprehensive Income	(i) Ending Balance Total Investment
	(Form 1 p 224)	(Form 1 p 224)	(Form 1 p 225)	(Form 1 p 225)	+(d)-(e)	(c)+(f)		+(g)+(h)+(b)
1996	$ 1,295,800	$ 848,998	$ 2,436,136	$ 2,460,420	$ (24,284)	$ 824,714		$ 2,120,514
1997	1,295,800	824,714	2,480,168	2,443,622	36,546	861,260		2,157,060
1998	1,295,800	861,260	2,167,436	2,168,058	(622)	860,638		2,156,438
1999	1,295,800	860,638	2,333,723	2,366,775	(33,052)	827,586		2,123,386
2000	1,295,800	827,586	2,242,280	2,312,037	(69,757)	757,829		2,053,629
2001	1,295,800	757,829	1,802,856	2,060,553	(257,697)	500,132		1,795,932
2002	1,295,800	500,132	6,967,101	1,585,021	5,382,080	5,882,212		7,178,012
2003	1,295,800	5,882,212	3,644,247	-	3,644,247	9,526,459		10,822,259
2004	1,295,800	9,526,459	2,559,212	-	2,559,212	12,085,671		13,381,471
2005	1,295,800	12,085,671	2,256,843	-	2,256,843	14,342,514		15,638,314
2006	1,295,800	14,342,514	29,405,773	27,500,000	1,905,773	16,248,287		17,544,087
2007	1,295,800	16,248,287	26,358,781	21,400,000	4,958,781	21,207,068		22,502,868
2008	1,295,800	21,207,068	29,548,519	30,000,000	(451,481)	20,755,587		22,051,387
2009	1,295,800	20,755,587	765,782	10,850,000	(10,084,218)	10,671,369		11,967,169
2010	1,295,800	10,671,369	3,761,027	-	3,761,027	14,432,396	(3,262,974)	12,465,222
2011	1,295,800	14,432,396	1,923,199		1,923,199	16,355,595	(4,022,750)	13,628,645
3/31/12 - YTD	1,295,800	16,355,595	(1,887,056)		(1,887,056)	14,468,539	(9,299,144)	6,465,195

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-40

Responding Witness: Counsel

Q1-40. Please provide a copy of the Company's operating budget by month for the calendar year 2012. Provide the income statement, balance sheet and cash flow statement.

A1-40. Consistent with its historical practice, the Company does not disclose information relating to budgets. Such projections are only estimates; there is no guarantee that such projections will be realized; and the estimates are based on a number of assumptions that may change over time. The Company has used an historic test year in this proceeding; not a forecasted test year. The Commission determined in its September 6, 1990 Ruling and in its September 21 and October 18, 1990 Orders in Case No. 90-158 that such information is not discoverable in historical test year rate cases. The budgetary information requested in this data request is not relevant to the analysis of known and measurable pro forma adjustments in this case.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-41

Responding Witness: Lonnie E. Bellar

Q1-41. Refer to Exhibit 1 Schedule 1.09.

a. Please provide the computations of the OSS margins for each month January 2009 through the most recent month for which actual data is available using the same definition for OSS margins reflected on this schedule. Show all components of the computations.

b. Please explain why the Company believes that the 3 months January – March 2012 times 4 represents the going forward amount of OSS margins given the seasonality and variability of OSS sales and margins.

A1-41. a. See attachment in Excel format.

b. See the response to PSC 2-47(a).

The attachment is being provided in a separate file in Excel format.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-42

Responding Witness: Paul W. Thompson / Shannon L Charnas / John J. Spanos

Q1-42. Refer to page 3 lines 11-19 of Ms. Charnas' Direct Testimony.

a. Please provide a copy of the Ventyx study.

b. Identify the results that were used from the Ventyx study by Mr. Spanos, provide a description of how the results were used by Mr. Spanos, and identify where in Mr. Spanos' depreciation study and/or workpapers those results were used.

c. Please provide a copy of the engagement letter, purchase order, and all correspondence with Ventyx related to the study.

d. Please provide a copy of all assumptions and/or directives and/or instructions provided to Ventyx by or on behalf of the Company.

e. Please provide a description of all involvement by Mr. Spanos in the Ventyx study, if any. If none, then please so state.

A1-42. a. See the response to AG 1-47.

b. Mr. Spanos incorporated the results of the Ventyx study as one of the factors used to determine the appropriate life spans for the depreciation study. The life spans used in the depreciation study, shown on pages II-27 and II-28, were also based in part on factors not included in the Ventyx study, including life spans for similar units elsewhere in the industry, the potential for new environmental regulations, and the age of major equipment such as scrubbers.

c. Please see attached for the Consulting Agreement as well as all correspondence with Ventyx related to the study. Certain information requested is confidential and proprietary, and is being provided under seal pursuant to a petition for confidential treatment.

d. Please see the response to Question No. 42c. All assumptions and/or directives and/or instructions provided to Ventyx are included in the attachment to Question No. 42c.

e. Mr. Spanos was aware of the Ventyx study and reviewed its results, but did not assist in the preparation of the study.

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Accepted: Life Assessment Study
Date: 4/29/2011 9:09:39 AM

I have forwarded your invite to Norm Lee from my team, and Andrea Eisold, the LGE-KU Account Manager at Ventyx. If it is necessary to have a call-in number I have one we can use, but I'll let you know as soon as I hear back from Andrea if that's necessary. Thanks!

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Accepted: Life Assessment Study
Date: 4/29/2011 9:19:21 AM

Andrea is not in the office on Wednesday and will be unavailable for the call. So calling me direct on my office number is the way to go!

Eric

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, April 29, 2011 9:16 AM
To: Eric Hughes
Subject: RE: Accepted: Life Assessment Study

Sounds good. Thanks.

-----Original Appointment-----
From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, April 29, 2011 9:10 AM
To: Wilson, Stuart
Subject: Accepted: Life Assessment Study
When: Wednesday, May 04, 2011 10:00 AM-11:30 AM (GMT-05:00) Eastern Time (US & Canada).
Where: LGEC12 North 2 (Cap 15)

I have forwarded your invite to Norm Lee from my team, and Andrea Eisold, the LGE-KU Account Manager at Ventyx. If it is necessary to have a call-in number I have one we can use, but I'll let you know as soon as I hear back from Andrea if that's necessary. Thanks!

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NOTE: The extension for all E.ON U.S. e-mail addresses has changed from @eon-us.com to @lge-ku.com. Please update your address book accordingly.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Short Form Agreement
Date: 5/5/2011 9:45:04 AM

Stuart;

I had said that I would send you our short form services agreement, however I have discovered while looking for the latest version on our intranet that they are being updated and have been asked to hold off until they are finalized today. I will get that to you as soon as I can grab the new approved version!

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Short Form Agreement
Date: 5/5/2011 11:08:11 AM

Stuart;

Wonder of Wonders! They actually got the revision to me as promised! Although it's still a good thing I didn't hold my breath.

Please have your contracts/purchasing people look at the first part of this for the Terms & Conditions (down to the signature block). If they have any concerns or desired changes, please have them do a mark-up on this with track changes turned on. You and I will fill in the appropriate parts of the Statement of Work sections before this goes for signatures, so they should not do anything with that part.

Thanks!

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Eric Hughes
Sent: Thursday, May 05, 2011 9:45 AM
To: Stuart Wilson (Stuart.Wilson@lge-ku.com)
Subject: Short Form Agreement

Stuart;

I had said that I would send you our short form services agreement, however I have discovered while looking for the latest version on our intranet that they are being updated and have been asked to hold off until they are finalized today. I will get that to you as soon as I can grab the new approved version!

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Re: ASA
Date: 5/5/2011 4:41:56 PM

I can tell you with almost (99.99%) certain that when I give them this one, they will counter with the one I already sent you... Oh well.

Have a great Derby Day!

Eric Hughes
404-849-7013
eric.hughes@ventyx.com
Sent from my iPhone

On May 5, 2011, at 4:29 PM, "Wilson, Stuart" <Stuart.Wilson@lge-ku.com> wrote:

Eric,

I spoke to our sourcing person and just like your guy he (without having the chance to review your contract) would prefer to use our agreement. I've attached it here in case it's helpful I'm not sure how different it is from yours. Regardless, probably makes sense to discuss your bid and a potential way forward before thinking too much further about contract matters.

Have a good weekend. Enjoy your Derby party!

Stuart

NOTE: The extension for all E.ON U.S. e-mail addresses has changed from @eon-us.com to @lge-ku.com. Please update your address book accordingly.

<Forms_Administrative_Services_Agreement.docx>

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Draft of Statment of Work
Date: 5/13/2011 2:59:25 PM

This stuff takes some careful reading and thought. Take your time and we can make adjustments as needed. I will be out of the office Monday and Tuesday at a conference. I will be available the rest of the week. Have a good weekend!

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, May 13, 2011 2:52 PM
To: Eric Hughes
Subject: RE: Draft of Statment of Work

Eric,

Sorry for the slow response. I'll get back to you next week on this.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, May 10, 2011 3:27 PM
To: Wilson, Stuart
Cc: Norman Lee; Rob Cleveland; Andrea Eisold
Subject: Draft of Statment of Work

Stuart;

Here is a first pass at the Statement of Work that will be attached to whichever Services Contract we wind up with. This is only a first draft, and I fully expect you to have questions and we will need to refine this before we begin any work. Please let me know when you would like to discuss this. Please be sure to turn on Track Changes if you edit the document directly. Thanks!

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013

eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Re: Draft of Statment of Work
Date: 6/1/2011 7:04:43 PM

Stuart;

Friday will work for me. No worries. I've had a couple of health issues these last two weeks so I haven't exactly been "fretting" about you! Pick a time Friday and I'll be available.

Eric Hughes
(o) 770-779-2855
(c) 404-849-7013
eric.hughes@abb.ventyx.com
Sent from my iPhone

On Jun 1, 2011, at 4:41 PM, "Wilson, Stuart" <Stuart.Wilson@lge-ku.com> wrote:

Hi Eric,

I apologize. I failed to meet my commitment in getting back to you. Please forgive me.

Are you available any time on Friday to discuss the scope of work?

Thanks.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, May 13, 2011 2:59 PM
To: Wilson, Stuart
Subject: RE: Draft of Statment of Work

This stuff takes some careful reading and thought. Take your time and we can make adjustments as needed. I will be out of the office Monday and Tuesday at a conference. I will be available the rest of the week. Have a good weekend!

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Sent: Friday, May 13, 2011 2:52 PM
To: Eric Hughes

Subject: RE: Draft of Statment of Work

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Stuart

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Sent: Tuesday, May 10, 2011 3:27 PM
To: Wilson, Stuart
Cc: Norman Lee; Rob Cleveland; Andrea Eisold
Subject: Draft of Statment of Work

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Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
<mailto:eric.hughes@ventyx.com> eric.hughes@abb.ventyx.com

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EXHIBIT A - SCOPE OF SERVICES

SCOPE OF WORK

A. Introduction:

In order to determine the useful economic life of LGE-KU's generating assets, Ventyx has been asked to perform a Generation Asset Life Assessment Study of LGE-KU's generating assets. Ventyx (as its predecessor NewEnergy Associates) executed a similar study for then E-ON U.S. in 2007. For this reason Ventyx has been asked to conduct an analysis to determine the probable retirement dates for each of LGE-KU's generation assets. The goal of the analysis is to allow LGE - KU to more accurately project when a generating asset will reach the end of its useful economic life and thereby determine a retirement date for use in a recalculation of the depreciation schedules for all affected units. With the results of this Life Assessment Study, LGE-KU will have a more robust determination of the remaining economic life of an asset, and be able to recalculate the affected depreciation schedules accordingly. Ventyx will utilize its proprietary **Strategist®** strategic planning model, together with LGE-KU's data, to perform this analysis.

B. Methodology:

This Life Assessment Analysis will cover the time period from 2011 through 2040 and will assess the end of economic life for between 30 and 35 generation units. For this analysis, generation units that will have been in service for less than 30 years for Combustion Turbines (CTs) and 60 years for coal powered units at the end of the study period will be excluded from the evaluation. Since these units will have been in-service for less than their nominal operating lives under current, standard industry practice it is both reasonable and cost effective to assume that these units will retire no earlier than 2041. There are currently only 5 or 6 units on the LGE-KU system that meet these specifications. These units will be identified by LGE-KU at the start of the Ventyx study. Any currently planned future new build resources will also be excluded from this study.

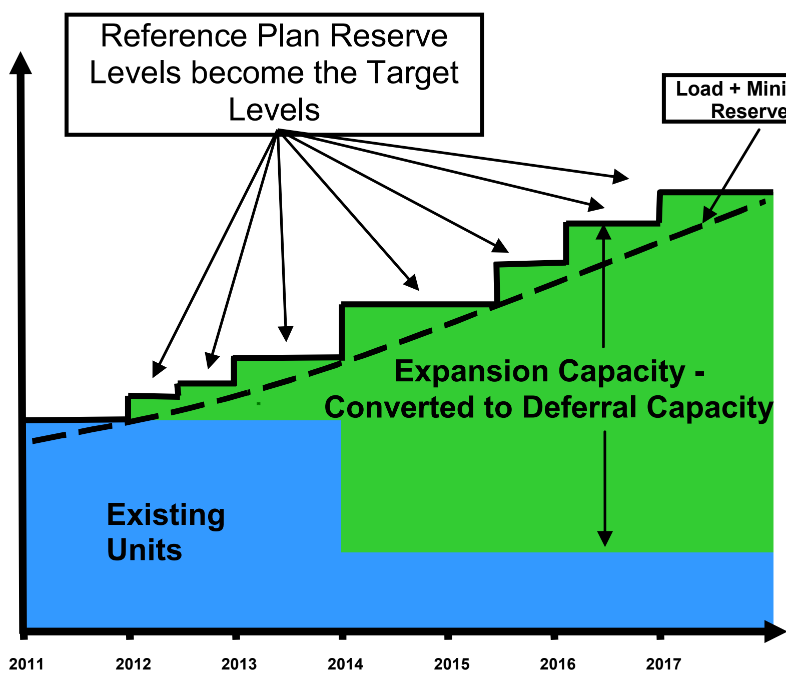
Ventyx will employ a *differential economic cost* methodology to determine the appropriate remaining useful economic life for each generation asset. This methodology computes the difference in total costs of the replacement resources vs. retaining the retirement candidate resources for the entire LGE-KU system. These costs include all fuel, O&M and capital expenditure costs. The specifics of the calculations are described in more detail later in this document.

The first step assumes that all retirement candidate assets (units) are "retired" in a specific year. In practice, the specific year depends on the type of resource and how long it would take to replace it with a similar type of generator. This means that for combustion turbines (CTs) they will be assumed to "retire" at the end of 2013 as the projected construction time for a CT is approximately 3 years (2011, 2012, and 2013). The replacement CT could then be "on-line" by the beginning of 2014. Coal and hydro resources will be "retired" at the end of 2018, with replacements available in early 2019. Next, a Reference Plan of replacement capacity will be developed using Ventyx's ***Strategist®*** PROVIEW™ resource optimization module. This Reference Plan will contain an optimized mix of peaking, mid-range, and baseload generation to both back-fill for the "retired" resources and to meet future demand and energy requirements in a least cost manner. The generation operational types will be represented by simple cycle combustion turbines, combined cycle combustion turbines, and coal fired steam generation, respectively.

The new-build resources will be constrained appropriately during the capacity expansion optimization to limit capital outlay exposure, but still retain sufficient flexibility in the resource mix to realize a least cost capacity back-fill and future expansion plan. In practice this will, for example, mean restricting large coal units and large CC's such that only one, of any type, could be added in any one year. The exception to this restriction will be for 2019 during the Reference Plan optimization when a large percentage of LGE-KU's coal generating assets will be "retired" and this will require the model to "build" more than one large generating unit to replace that capacity in that year. Smaller Combined Cycle and Simple Cycle Combustion Turbine generators will not require similar restrictions. The target minimum reserve margin constraint for the Reference Plan optimization runs will be determined in consultation between Ventyx and LGE-KU.

Once the Reference Plan is developed, the replacement capacity is "converted" automatically within the model to "deferral capacity" (See Figure 1; this figure is not reflective of LGE-KU's current generation fleet, but is an example for informational purposes only). The replacement resources designated as "deferrable" can vary their capacity continuously from zero MW to their full rated capacity as entered in the model and their fixed O&M and capacity costs adjusted accordingly. In any year, the last unit added in the Reference Plan is the first one from which capacity is deferred.

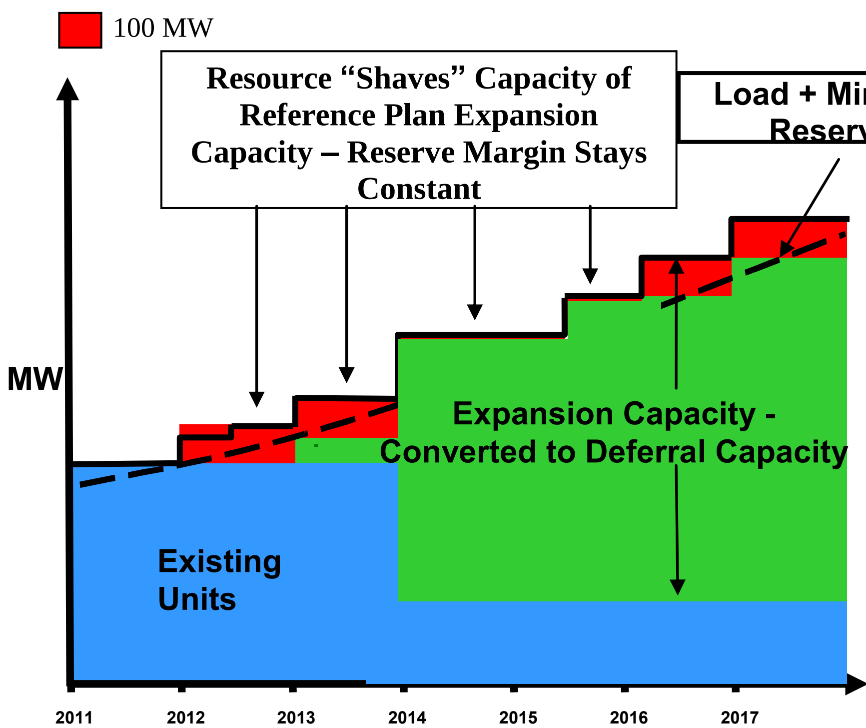
Figure 1: Deferral Capacity Example



Specific percentage reserve margin targets are set in the model so that when capacity is added to the system, in this case the Life Assessment candidate units, the deferrable capacity units reduce their capacity to hold the system reserve margin constant with the Reference Plan (see Figure 2; this figure is not reflective of LGE-KU's current fleet, but is an example for informational purposes only).

Fixed O&M costs and total capital costs (represented by the resource's Economic Carrying Charge) of the deferrable resources are also adjusted to reflect their computed capacities. The model is run to determine the production costs for this adjusted system.

Figure 2: Deferral Capacity Example



Once the Reference Plan has been converted to deferral capacity resources, the basic system modeling will need to be supplemented with specific cost data for each of the candidate retirement units. Projections of each unit's O&M costs, capital improvement expenditures (CapEx), and property tax and insurance costs out through 2040 will need to be made and adjusted as appropriate in consultation between Ventyx and LGE-KU. It is widely recognized that operating parameters such as EFOR, maintenance outage requirements, and heat rates increase (degrade) over the lifetime of an asset, and that effective unit capacity decreases. Making this more complicated, as some larger CapEx expenditures are made periodically (representing refurbishments as opposed to the regular required annual expenditures) over the asset's life some of the degradation will be recovered, but not all of it. Projections of future performance for aging generators would, ideally, be based on detailed historical data for similar types of resources. However, in the 2007 Life Assessment Study no reliable source of data to project this performance degradation and cost increases over the life of an asset existed, nor is Ventyx aware of any currently available source for such data. Operating performance data that is available is either at “New & Clean” conditions or are for “average lifetime” conditions. In addition, cost data is generally projected for a few near term years (5 or 6) and then “run out” at a long term escalation rate such as the CPI or GDP escalators. Thus, Ventyx recommends making the assumption that performance degradation, maintenance and capital expenditures will increase at an ever increasing rate (i.e. – an accelerating escalation rate) over the lifetime of the asset. The choice of the initial, “average,” and “terminal” escalation rates as well as the rate of change for the various effected parameters related to the age of the specific asset will be one of the primary challenges of this analysis, as indeed also proved to be the case in the 2007 study. These adjustments will also need to be performed in consultation between Ventyx and LGE-KU.

All amortizable expenditures (capital improvement, refurbishment, etc.) will be converted to an Economic Carrying Charge (EC) treatment assuming the resource remains in service for another 30 years (e.g. – 2048 for coal units). The ECC is the difference between the PV revenue requirements including infinite replacement in-kind of making an investment in a specific year vs. the PV revenue requirements of waiting until the next year. Thus it represents the true economic cost “hit” of commissioning a capital resource in that year. Note that this representation is not directly convertible to an annual revenue requirements treatment (accounting treatment) and cannot be used to calculate the actual cash flows involved. It does, however, properly represent the true economic cost associated with making such capital outlay decisions.

The next step of the analysis develops individual plans where only one of the candidate units is not retired and assumes that the retained unit will then remain in service for at least 30 additional years. The Present Value (PV) of the annual utility costs is extracted from the model for each plan retaining one of the candidate units. The difference between these PV annual utility costs and the PV annual utility costs of the Reference Plan is then computed. The first year the difference is negative (retaining the unit costs more than retirement) is determined and this indicates the earliest potential date for the end of the asset’s effective useful economic life. The PV annual utility cost differentials are then accumulated from that year forward and the point where the sum turns negative and remains negative is the latest potential date for the end of the asset’s useful economic life. This is shown in the example in Figure 3; the earliest year that the example unit would reach the end of its effective useful economic life in this case is 2014, with the latest economic retirement in 2018.

A possible situation, which did arise with some units examined during the 2007 study, is that the first negative year for PV annual utility cost occurs relatively early, and then several years with positive PV annual revenue requirements follow before the annual PV differential values become negative again. This results in pushing the end of the asset’s effective useful economic life out by several years while an accumulated positive differential sum is eliminated by the subsequent accumulation of negative differentials. It is not reasonable to wait until all the benefits accumulated during the intervening positive differential years are eliminated by retaining the unit for several years of negatives. In these cases, it is sensible to ignore the first occurrence of a negative differential, and to wait for the differential series to show stable negatives before beginning the accumulation.

It is possible for the methodology to indicate *no* end of effective useful economic life for a particular unit in the time frame of the study; in this case through 2040. This means that, based upon the assumptions used, the actual end of the asset’s effective useful economic life is beyond 2040.

Figure 3:

Illustration of the Determination of the Effective Useful Economic Life For a Life Assessment Candidate Unit

Year	Differential Annual Revenue Requirements	Cumulative NPV of Differential Annual Revenue Requirements (2014 and beyond)
2010	$1.00	
2011	$1.50	
2012	$0.80	
2013	$0.60	
2014	($0.03)	($0.03)
2015	($0.50)	($0.53)
2016	$0.40	($0.13)
2017	$0.30	$0.17
2018	($0.50)	($0.33)
2019	($0.70)	($1.03)
2020	($1.00)	($2.03)
2021	($0.60)	($2.63)
2022	($0.20)	($2.83)
2023	$0.20	($2.63)
2024	$0.50	($2.13)
2025	($0.80)	($2.93)
2026	($0.10)	($3.03)
2027	$0.05	($2.98)
2028	$0.01	($2.97)
2029	($0.40)	($3.37)
2030	($0.10)	($3.47)
2031	($0.50)	($3.97)
2032	$0.30	($3.67)
2033	$0.50	($3.17)
2034	($0.30)	($3.47)
2035	($0.10)	($3.57)

This methodology can be employed for a single set of most probable assumptions (i.e. – the Base Case) and for several additional scenarios where the basic assumptions on future conditions are varied. This was not done in the 2007 Life Assessment Analysis; primarily due to the time it took to refine the initial analysis method. The value of the additional insight that examining several scenarios and their impact on the retirement dates for each candidate retirement resource cannot be over estimated. Ventyx strongly recommends that no fewer than two additional scenarios be examined in addition to the Base Case assumptions.

An important and highly recommended additional enhancement to the methodology used for the 2007 study would be to include a stochastic assessment of the economic life of the candidate resources.

This involves employing tools typically used in a generation expansion plan risk assessment, and will yield the same information and insights as would be expected from a generation expansion plan risk assessment. The purpose of this portion of the study would be to determine the range of years over which each candidate resource's end of useful economic life would be reached. The first step of this portion of the analysis would be to subject several of the resulting plans from each scenario to changing assumptions on a single variable, such as natural gas prices. If the plans are sensitive to that variable, then it would be included in the full blown stochastic (Monte Carlo) analysis to follow. If the plans are not sensitive to the individual variable currently being tested, and that variable is also not correlated to one that the plans are sensitive to, then it would not be included in the stochastic analysis. Once the variables are selected (along with their correlated variables) a series of draws (100 draws is typical) is made and the changes to the cost assumptions overlaid on the ***Strategist*** modeling and the model is run for each candidate retention plan and the Reference Plan for each scenario. The resulting impacts on production costs and capital costs are collected and the retirement dates for each draw calculated. The spread of resultant retirement dates is then plotted using distribution bar charts, which will show the range of years and the number of occurrences of that particular year.

Description of Project Tasks

Task A: Project Management – This task includes project management activities, periodic project team meetings that include Ventyx and LGE-KU assigned personnel, and an initial Project Kick-Off Meeting. The project Kick-Off Meeting will include all members of the project team from both companies and is expected to cover two days in Louisville. At the Project Kick-off Meeting several important decisions must be agreed upon, including; the basic descriptions of the two additional scenarios to be examined, the specific variables to be examined in the sensitivity testing, the specific generic resources to be used to fill the energy and capacity needs for the Reference Cases (three scenarios), specific retirement dates for the candidate resources based on the timetable to replace them, identification of those personnel to be responsible for providing data updates and performing specific project subtasks, and the final schedule and list of deliverables from both parties.

Task B: Strategist Database Preparation – Included in this task are a complete review of the current LGE-KU Strategist database, any updates to the data to bring the database into alignment with the most recent and any scheduled updates that are identified during the Project Kick-off Meeting as essential to the analysis, and the development of the specific data changes for each of the two additional scenarios to be examined in addition to the Base Case.

Task C: Database Modifications for Candidate Resources – This will involve examining the future cost and operational parameter data contained in the initial database, and making the necessary adjustments to their future trajectories to properly model expected performance degradation and cost trajectory acceleration. Also included here are the actual changes to the Strategist database for these cost and operational parameter adjustments.

Task D: Develop Strategist Reference Plans – Includes the modeling of the generic fill and future resources, adding in the modeling assumptions for candidate retirements and optimizing each of the three scenarios to create the Reference Plans, and converting the selected Reference Plans to deferral capacity resources.

Task E: Scenario Runs for Candidate Resources – Run the Strategist optimization with all candidate units allowed to be "selected" to remain in operation for the remainder of the Study Period under the Base Case scenario. This Task also includes collecting the results data to calculate the initial and final retirement years for each candidate resource under the p50 assumptions embodied in the Base Case scenario.

Task F: Final Report – The preparation of a Final written report including all assumptions and results, and including conclusions drawn from the analysis. Also included is the preparation of an expected PowerPoint presentation suitable for an Executive Presentation on the study's results and conclusions.

SCHEDULE & DELIVERABLES

The following schedule and deliverables have been identified within this Statement of Work.

1. Schedule of Work

The specific schedule of work will be finalized and agreed upon by both parties following the Project Kick-Off Meeting. However, the final Report will be completed no later than Sept 30, 2011.

2. Deliverables from Ventyx

Ventyx will deliver the following items under this Statement of Work;

- A final report on or before September 30, 2011.
- A PowerPoint presentation for use in executive presentation summarizing the study methodology and results.
- All ***Strategist*** databases developed or modified during the execution of this study.
- All spreadsheets used in the development of input data and model output analysis used in the performance of this study.

3. Deliverables from Client

The Client will deliver the following items to support the activities for this SOW;

- The most current ***Strategist*** model database representing the LGE-KU system to be used as the initial database.
- All updates to generating unit operating parameters and costs required to remain consistent with the forecasting and planning cycle for the time period 2011 through 2040.
- All updates to fuel and market prices and demand and energy forecasts that are consistent with the forecasting and planning cycle for the time period 2011 through 2040.
- The schedule of expected CapEx expenditures for all candidate resources for the time period 2011 through 2040.

- A schedule of when such data updates as noted in the above bullets are to be expected within two weeks of the project kick-off meeting (in Louisville or by conference call).
- Reasonable access to personnel and managers at LGE-KU by Ventyx consultants to mutually determine the appropriateness of schedules, deliverables, and data and adjustments to be used and applied in this analysis.

4. Assumptions

The following assumptions have been made when producing this SOW;

- LGE-KU will provide Ventyx with their latest Strategist database, translated from a PowerBase database. This basic data included all operating parameters and costs for the existing generation units in the KU and LG&E system. This includes EFOR, scheduled outage requirements, generator operating capacities, heat rates, and variable and fixed operating and maintenance costs for all the generating assets, as well as load, market energy price, and fuel price forecasts over the study horizon (2011 to 2040).
- A single scenario representing the Base Case is assumed in the pricing for this analysis.
- LGE-KU will provide all data, updates to forecasts, and review of interim and preliminary work in a timely manner that does not impact the schedule of work.

CHARGES

5. Cost Summary

The cost of the analysis proposed in this Statement of Work is an estimated $103,175 and will be performed on a Time and Materials (T&M) basis, exclusive of expenses and taxes. The estimate for professional time is based on the hourly rates shown in the attached 2011 Rates Schedule for Consulting Services. Travel and other expenses are not estimated at this time and are not included in this estimate, but will be subject to the terms included in Attachment A. The estimates provided below are intended to be an estimate for LGE-KU budgeting and Ventyx resource scheduling purposes only.

All costs presented in this SOW are expressed in US dollars ($US).

Estimated Man-Hours and Costs for LGE-KU Life Assessment Study		
Hrs.	$	Description
78	$ 24,050.00	Task A - Administrative and General
70	$ 18,700.00	Task B - Strategist Database Preparation
64	$ 16,640.00	Task C - Modifications for Candidate Resources
76	$ 20,295.00	Task D - Develop Strategist Reference Plans
16	$ 4,540.00	Task E - Base Case Run for Candidate Resources
68	$ 18,950.00	Task F - Final Report
372	$ 103,175.00	Total

6. Payment terms

Ventyx will invoice for all work 30 days in arrears. LGE-KU is expected to pay all invoices in 30 days after presentation.

VENTYX
2011 RATE SCHEDULE - CONSULTING SERVICES

Rate Group	Hourly Fee US $
Sr. Vice President	420
Vice President, Subject Matter Expert / Expert Witness	400
Director	370
Principal Consultant	315
Lead Consultant	300
Project Manager	265
Senior Consultant	230
Consultant	210
Associate Consultant	185
Technical and Administrative Professionals	145

15% Adder for Work for Litigation / Regulatory Proceedings

Support Service Charges. In addition to payment for professional services, all reasonable and necessary expenses incurred in connection with the performance of professional services will be billed at cost plus 10%. Such expenses include, but are not limited to, outside reproduction costs, artwork, airline travel, meals, lodging, postage, freight, telephone, and travel related expenses. Mileage is charged at the prevailing Standard Mileage Rate as determined by the Internal Revenue Service.

Materials, Equipment, Subcontractors. Charges for the purchase of job parts and materials, specialized equipment rental or purchase, and tool rental or replacement purchase shall be charged at cost plus 15%. Expenditures for hiring of sub-consultants or subcontractors shall be charged at cost plus 15%. Part-time employees and contract employees will be charged at the appropriate rate from the table above. To the extent sales, use, or district taxes apply, such taxes shall be charged.

Late Fees. Client agrees to pay the amount due to Consultant for services within thirty (30) days of the invoice. Past due balances shall be charged interest at the rate of one and one-half percent (1.5%) per month.

Insurance Provisions. Where a Client requires that it or other entities be named as additional insured with regard to company insurance policies, any cost to Ventyx of such provisions shall be billed to the Client.

Fee Schedule Revision. This schedule is effective commencing January 1, 2011, and may be revised periodically by Ventyx.

Attachment A – Expenses

Travel and living expenses include, but are not limited to, the following.

1. Travel to and from Client site & while on site: Travel costs to and from the Client's site, or any other authorized locations, and while on site will be billable. Mode of travel may include air or surface transportation. Ventyx resources may elect to drive a personal car. Such travel will be billed on a per-mile basis based on the rate per mile allowable by the Internal Revenue Service.

2. Lodging while traveling to and from Client's site and while on-site: Lodging costs, inclusive of all tips, taxes, and miscellaneous charges, will be billable.

3. Meals & Incidental expenses (M&IE): M&IE will be charged for every day or partial day on-site or while traveling to or from the Client's site [as incurred.] [on a per diem basis. The per diem rate for M&IE will be set based on the U.S. General Services Administration (GSA) rate applicable for the travel dates, but not less than $46 U.S. per day. The per diem will be inclusive of all applicable taxes and gratuities. The full per diem rate will apply for all travel days, including the first and last travel day of any trip. For this SOW, when Ventyx resources travel to [x site] the current daily per diem rate is [$x.xx].

4. Weekend stays: To reduce travel, Ventyx resources may elect to stay over the weekend at the Client's work location. In these cases, the lodging and meal costs will be charged for the weekend days [as incurred] [on a per diem basis].

5. Long-term lodging: For assignments greater than three (3) months, Ventyx resources may elect to obtain long-term accommodations, such as corporate housing. Long-term lodging costs will be billed on a monthly basis. The monthly cost will include all costs related to lodging. Client will be responsible for loss of deposit due to terminated lease agreements, if the charges are the result of termination of the project or the early release of a Ventyx resource.

6. Parking: Parking of personal or rental cars while on-site, or parking at airports, will be billable. Ventyx resources will utilize lower-cost parking lots when practical.

7. Changes: Additional costs incurred as a result of any travel changes are billable.

8. Other Costs: All reasonable other direct costs, including but not limited to the following, will be billable to the Client:

8.1 Shipping and postage charges, including insurance, for hardware, equipment, and documentation.
8.2 Rental or purchase of direct materials and equipment as directed by Client.
8.3 Reproduction of reports or documents.
8.4 Data communication, internet, and telephone charges.

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Confrence Call this Morning
Date: 6/3/2011 10:37:48 AM

Stuart;

You can call me at my office number: 770-779-2855. Thanks.

Eric

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= DISCLAIMER:
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: LGE/KU Scope of Work for Life Assessment Study
Date: 6/10/2011 10:59:01 AM

Stuart;

Here is the reworked draft Statement of Work for the life Assessment Study that incorporates your comments and modifications to scope. I have removed the two additional scenarios, and the sensitivity and stochastic analysis portions. After careful consideration I also agree that the Final Report would be impacted as well and the estimate included here reflects that. Please let me know as soon as possible if this is how we want to proceed so I can begin the paperwork process. I will take the contract draft that you sent to me and get that started into our legal/contracting process. Please send me the correct contact in your purchasing/contracts/legal department that will need to work with my company's counterpart on the services agreement itself. Once that is nailed down the SOW just references it (in this case by attachment since we want the processed together) and getting that through is automatic. The only change I will still need to make to this SOW is to add in signature blocks at the end and attach a Rates Schedule to it. Let me know if you have any questions or concerns remaining. Thanks!

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/10/2011 10:59:59 AM

I just realized I already attached the rates schedule, so scratch that part&

From: Eric Hughes
Sent: Friday, June 10, 2011 10:59 AM
To: 'Wilson, Stuart'
Cc: Sebourn, Michael
Subject: LGE/KU Scope of Work for Life Assessment Study

Stuart;

Here is the reworked draft Statement of Work for the life Assessment Study that incorporates your comments and modifications to scope. I have removed the two additional scenarios, and the sensitivity and stochastic analysis portions. After careful consideration I also agree that the Final Report would be impacted as well and the estimate included here reflects that. Please let me know as soon as possible if this is how we want to proceed so I can begin the paperwork process. I will take the contract draft that you sent to me and get that started into our legal/contracting process. Please send me the correct contact in your purchasing/contracts/legal department that will need to work with my company's counterpart on the services agreement itself. Once that is nailed down the SOW just references it (in this case by attachment since we want the processed together) and getting that through is automatic. The only change I will still need to make to this SOW is to add in signature blocks at the end and attach a Rates Schedule to it. Let me know if you have any questions or concerns remaining. Thanks!

Eric Hughes
Vice President - Advisors

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= DISCLAIMER:
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/14/2011 9:13:06 AM

Thanks Stuart. I will get the contracting process going today.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, June 14, 2011 8:27 AM
To: Eric Hughes
Cc: Sebourn, Michael; Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Eric,

Sorry for the slow response. This looks good. I saw Tim's email yesterday. Hopefully, we can put a contract together fairly quickly and start working.

We're looking forward to working with you.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, June 10, 2011 10:59 AM
To: Wilson, Stuart
Cc: Sebourn, Michael
Subject: LGE/KU Scope of Work for Life Assessment Study

Stuart;

Here is the reworked draft Statement of Work for the life Assessment Study that incorporates your comments and modifications to scope. I have removed the two additional scenarios, and the sensitivity and stochastic analysis portions. After careful consideration I also agree that the Final Report would be impacted as well and the estimate included here reflects that. Please let me know as soon as possible if this is how we want to proceed so I can begin the paperwork process. I will take the contract draft that you sent to me and get that started into our legal/contracting process. Please send me the correct contact in your purchasing/contracts/legal department that will need to work with my company's counterpart on the services agreement itself. Once that is nailed down the SOW just references it (in this case by attachment since we want the processed together) and getting that through is automatic. The only change I will still need to make to this SOW is to add in signature blocks at the end and attach a Rates Schedule to it. Let me know if you have any questions or concerns remaining. Thanks!

Eric Hughes
Vice President - Advisors

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=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/14/2011 10:57:41 AM

Tim;

I will look through the ASA and get that moved over to our contracts/legal department later today. I presume if they find anything that they want changes to they should work through you? Thanks.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, June 13, 2011 5:14 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

I will be your contact as we work together on our Administrative Services Agreement (ASA) that Stuart sent you and you reference below. Please pass that on to your legal group and let me know if they have any questions. I will have other questions for you tomorrow as I look a little closer at the SOW.

Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Wilson, Stuart
Sent: Monday, June 13, 2011 8:38 AM
To: Sheridan, Timothy
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Tim,

Here's a good statement of work for our contract with Ventyx. I'll give you a call to discuss a plan forward.

Stuart

From: Eric Hughes [mailto:]
Sent: Friday, June 10, 2011 10:59 AM
To: Wilson, Stuart
Cc: Sebourn, Michael
Subject: LGE/KU Scope of Work for Life Assessment Study

Stuart;

Here is the reworked draft Statement of Work for the life Assessment Study that incorporates your comments and modifications to scope. I have removed the two additional scenarios, and the sensitivity and stochastic analysis portions. After careful consideration I also agree that the Final Report would be impacted as well and the estimate included here reflects that. Please let me know as soon as possible if this is how we want to proceed so I can begin the paperwork process. I will take the contract draft that you sent to me and get that started into our legal/contracting process. Please send me the correct contact in your purchasing/contracts/legal department that will need to work with my company's counterpart on the services agreement itself. Once that is nailed down the SOW just references it (in this case by attachment since we want the processed together) and getting that through is automatic. The only change I will still need to make to this SOW is to add in signature blocks at the end and attach a Rates Schedule to it. Let me know if you have any questions or concerns remaining. Thanks!

Eric Hughes
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(o) 770-779-2855 | (c) 404-849-7013

eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/16/2011 12:02:39 PM

Tim;

I have submitted the ASA and the SOW I have worked out with Stuart to our contracts/legal department for processing. However, based on a preliminary review I can tell you that a number of issues will need to be resolved and that the contract will have multiple redlines when I return it to you next. Hopefully this will not result in an overlong process and the Sales Exec assigned to LG&E-KU (Andrea Eisold) and I will stay on top of this to keep it moving forward. Thanks.

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From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, June 13, 2011 5:14 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

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Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Wilson, Stuart
Sent: Monday, June 13, 2011 8:38 AM
To: Sheridan, Timothy
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

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Here's a good statement of work for our contract with Ventyx. I'll give you a call to discuss a plan forward.

Stuart

From: Eric Hughes [mailto:]
Sent: Friday, June 10, 2011 10:59 AM
To: Wilson, Stuart
Cc: Sebourn, Michael
Subject: LGE/KU Scope of Work for Life Assessment Study

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/17/2011 9:02:25 AM

Tim;

The sales person handling the LG&E-KU account had a good idea: we may be able to use a PSA already in place to attach the SOW to. If that will work for both Ventyx and LG&E-KU, then we can jump this forward by several weeks. I expect a ruling from my legal department in the next several days.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Friday, June 17, 2011 8:35 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Ok, just send it back as soon as you can.

Thanks

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Different Topic
Date: 6/17/2011 9:05:02 AM

(215) 491-7027

andrea.eisold@abb.ventyx.com

There you go!

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, June 17, 2011 9:01 AM
To: Eric Hughes
Subject: RE: Different Topic

OK. Makes sense. Could you please pass me Andrea's number?

Thanks.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, June 17, 2011 8:59 AM
To: Wilson, Stuart
Subject: RE: Different Topic

Stuart;

Initially, you should address those questions to Andrea. When we get to our kickoff meeting I would be more than happy to answer any questions I can, and find out the answers for any I cannot cover off the cuff.

Eric

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, June 17, 2011 8:42 AM
To: Eric Hughes
Subject: Different Topic

Eric,

You mentioned Andrea Eisold& We have some questions about the new Ventyx products (Planning & Risk and System Optimizer). Is she the person to whom we should address those questions or maybe in a free moment during our kickoff meeting could we address those questions to you. Trying to figure out who's the best person to talk to&

Thanks.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, June 16, 2011 12:03 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

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Sent: Monday, June 13, 2011 5:14 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

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Agreement (ASA) that Stuart sent you and you reference below. Please pass that on to your legal group and let me know if they have any questions. I will have other questions for you tomorrow as I look a little closer at the SOW.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/20/2011 5:14:07 PM

Tim;

As I have previously communicated to you, my legal department has a number of issues with your ASA that without satisfactory remedy will mean that Ventyx cannot execute this contract. I can request that they proceed with a markup of your contract and return a redline version to you; however, they have already informed me that with the end of the quarter rapidly approaching it will be at least next month and probably late in that month before they could devote their attention to this. That is why I had hoped we could bypass a new contract and utilize an old one. I will see what I can do, but I have no way to get the lawyers to conform to my desires.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, June 20, 2011 5:02 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

The attached will not work for this project. We have new ownership and no longer have the same name and the attached does not have all the commercial terms we would like to have in agreements going forward. We could possibly pull out the commercial terms from the attached and integrate them (along with other necessary term) into the new scope of work but we really need to get our ASA signed for this project and all future projects. Can we quickly get the ASA agreement finalized? In the meantime we are looking to see if PPL (our new parent company) has commercial terms in place with your company that we can use. Are you aware of any terms in place with PPL?

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Ok, just send it back as soon as you can.

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To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/20/2011 5:20:43 PM

PS I will check on the PPL side. I'll let you know tomorrow.

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
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Subject: FW: LGE/KU Scope of Work for Life Assessment Study

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Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, June 13, 2011 5:14 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

I will be your contact as we work together on our Administrative Services Agreement (ASA) that Stuart sent you and you reference below. Please pass that on to your legal group and let me know if they have any questions. I will have other questions for you tomorrow as I look a little closer at the SOW.

Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Wilson, Stuart
Sent: Monday, June 13, 2011 8:38 AM
To: Sheridan, Timothy
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Tim,

Here's a good statement of work for our contract with Ventyx. I'll give you a call to discuss a plan forward.

Stuart

From: Eric Hughes [mailto:]
Sent: Friday, June 10, 2011 10:59 AM
To: Wilson, Stuart
Cc: Sebourn, Michael

Subject: LGE/KU Scope of Work for Life Assessment Study

Stuart;

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Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

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eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: Re: LGE/KU Scope of Work for Life Assessment Study
Date: 6/21/2011 4:25:51 PM

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(c) 404-849-7013
eric.hughes@abb.ventyx.com
Sent from my iPhone

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Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, June 17, 2011 3:17 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/21/2011 5:43:46 PM

Tim;

I found an old PSA between PPL and Global Energy, but I will have to check with Legal if they will approve using that& I seem to recall them getting picky about that on another contract recently. Why does this have to be sooooo hard..? (dub over some Eric Clapton music&) If they go for it I'll forward you an ecopy (its dated Feb 21, 2007 by the way). I hope this will work!

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Tuesday, June 21, 2011 4:27 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Sounds fine, thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, June 21, 2011 4:26 PM
To: Sheridan, Timothy
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Subject: Re: LGE/KU Scope of Work for Life Assessment Study

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Cc: Wilson, Stuart
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Subject: RE: LGE/KU Scope of Work for Life Assessment Study

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 6/30/2011 2:30:31 PM

Tim;

I have been out of the office for a week and a half and will follow up on this now that I am back.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, June 30, 2011 11:08 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Eric,

Any luck on the below. We are not making much progress on our end but just followed up with PPL again yesterday.

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Sorry Tim, I am in DC helping my step mom move today... I will have to check up on that one later thus week.

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To: 'Eric Hughes'
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Great. Let me know if it will work on your side.

Thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, June 21, 2011 5:44 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

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To: Eric Hughes
Cc: Wilson, Stuart
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Eric Hughes

(o) 770-779-2855

(c) 404-849-7013

eric.hughes@abb.ventyx.com

Sent from my iPhone

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Cc: Wilson, Stuart
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Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, June 20, 2011 5:02 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

The attached will not work for this project. We have new ownership and no longer have the same name and the attached does not have all the commercial terms we would like to have in agreements going forward. We could possibly pull out the commercial terms from the attached and integrate them (along with other necessary term) into the new scope of work but we really need to get our ASA signed for this project and all future projects. Can we quickly get the ASA agreement finalized? In the meantime we are looking to see if PPL (our new parent company) has commercial terms in place with your company that we can use. Are you aware of any terms in place with PPL?

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To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

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Here is the situation; we have a PSA already in play from October 1, 2008. This is contract #29275 (attached). If we can attach by reference to that contract with this SOW, then we can avoid a potentially protracted contract negotiation that will probably not get done until well into 3rd quarter. I have attached a copy of the SOW with the reference to the PSA contract. If this will serve our purposes please let me know before you sign it so that I can inform my legal department we are going down that road. Thanks.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

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Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Ok, just send it back as soon as you can.

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To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

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I have submitted the ASA and the SOW I have worked out with Stuart to our contracts/legal department for processing. However, based on a preliminary review I can tell you that a number of issues will need to be resolved and that the contract will have multiple redlines when I return it to you next. Hopefully this will not result in an overlong process and the Sales Exec assigned to LG&E-KU (Andrea Eisold) and I will stay on top of this to keep it moving forward. Thanks.

Eric

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To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

I will be your contact as we work together on our Administrative Services Agreement (ASA) that Stuart sent you and you reference below. Please pass that on to your legal group and let me know if they have any questions. I will have other questions for you tomorrow as I look a little closer at the SOW.

Thanks!

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Sent: Monday, June 13, 2011 8:38 AM
To: Sheridan, Timothy
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Tim,

Here's a good statement of work for our contract with Ventyx. I'll give you a call to discuss a plan forward.

Stuart

From: Eric Hughes [mailto:]
Sent: Friday, June 10, 2011 10:59 AM
To: Wilson, Stuart
Cc: Sebourn, Michael
Subject: LGE/KU Scope of Work for Life Assessment Study

Stuart;

Here is the reworked draft Statement of Work for the life Assessment Study that incorporates your comments and modifications to scope. I have removed the two additional scenarios, and the sensitivity and stochastic analysis portions. After careful consideration I also agree that the Final Report would be impacted as well and the estimate included here reflects that. Please let me know as soon as possible if this is how we want to proceed so I can begin the paperwork process. I will take the contract draft that you sent to me and get that started into our legal/contracting process. Please send me the correct contact in your purchasing/contracts/legal department that will need to work with my company's counterpart on the services agreement itself. Once that is nailed down the SOW just references it (in this case by attachment since we want the processed together) and getting that through is automatic. The only change I will still need to make to this SOW is to add in signature blocks at the end and attach a Rates Schedule to it. Let me know if you have any questions or concerns remaining. Thanks!

Eric Hughes
Vice President - Advisors

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 7/1/2011 10:44:21 AM

The response I got (late yesterday evening) is as follows:

This agreement is with PPL Energy Plus not LGE-KU and there's nothing in that agreement that allows for use by parents, subsidiaries. New psa.

So we are back at square one again.

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, June 30, 2011 11:08 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Eric,

Any luck on the below. We are not making much progress on our end but just followed up with PPL again yesterday.

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, June 27, 2011 10:51 AM
To: Sheridan, Timothy
Subject: Re: LGE/KU Scope of Work for Life Assessment Study

Sorry Tim, I am in DC helping my step mom move today... I will have to check up on that one later thus week.

Eric Hughes

(o) 770-779-2855

(c) 404-849-7013

eric.hughes@abb.ventyx.com

Sent from my iPhone

On Jun 27, 2011, at 10:46 AM, "Sheridan, Timothy" <Timothy.Sheridan@lge-ku.com> wrote:

Eric,

Just wanted to follow up on the below. Any luck?

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Sheridan, Timothy
Sent: Wednesday, June 22, 2011 10:10 AM
To: 'Eric Hughes'
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

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Thanks

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study
Date: 7/1/2011 11:06:23 AM

In that case if we can use something similar to the short form agreement I already sent to you, we might be able to get this done more quickly. Let me know if you would like me to send that over again. Thanks.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, July 01, 2011 11:03 AM
To: Eric Hughes; Sheridan, Timothy
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Based on this, I think we should move quickly towards pulling together a one-off' contract (if that makes sense). Tim I believe is out of the office until Wednesday. We can hopefully schedule an internal meeting then with the appropriate people to agree that that's a reasonable way forward.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, July 01, 2011 10:44 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

The response I got (late yesterday evening) is as follows:

This agreement is with PPL Energy Plus not LGE-KU and there's nothing in that agreement that allows for use by parents, subsidiaries. New psa.

So we are back at square one again.

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, June 30, 2011 11:08 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Eric,

Any luck on the below. We are not making much progress on our end but just followed up with PPL again yesterday.

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, June 27, 2011 10:51 AM
To: Sheridan, Timothy
Subject: Re: LGE/KU Scope of Work for Life Assessment Study

Sorry Tim, I am in DC helping my step mom move today... I will have to check up on that one later thus week.

Eric Hughes

(o) 770-779-2855

(c) 404-849-7013

eric.hughes@abb.ventyx.com

Sent from my iPhone

On Jun 27, 2011, at 10:46 AM, "Sheridan, Timothy" <Timothy.Sheridan@lge-ku.com> wrote:

> Eric,
>
> Just wanted to follow up on the below. Any luck?
>
> Tim Sheridan
> LG&E and KU Services Company
> (502) 627-3838 tel
> (502) 217-2170 fax
> Timothy.Sheridan@lge-ku.com
>
> From: Sheridan, Timothy
> Sent: Wednesday, June 22, 2011 10:10 AM
> To: 'Eric Hughes'
> Cc: Wilson, Stuart
> Subject: RE: LGE/KU Scope of Work for Life Assessment Study
>
> Great. Let me know if it will work on your side.

Thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, June 21, 2011 5:44 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Tim;

I found an old PSA between PPL and Global Energy, but I will have to check with Legal if they will approve using that& I seem to recall them getting picky about that on another contract recently. Why does this have to be sooooo hard..? (dub over some Eric Clapton music&) If they go for it I'll forward you an ecopy (its dated Feb 21, 2007 by the way). I hope this will work!

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Tuesday, June 21, 2011 4:27 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Sounds fine, thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]

Sent: Tuesday, June 21, 2011 4:26 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: Re: LGE/KU Scope of Work for Life Assessment Study

Tim;

On either of those options I can get it from 90% to 100% of the way there working with you. Only if we have to do the long form ASA will this get protracted. Thanks! I will see if I can find something in our contracts library for PPL as well.

Eric Hughes

(o) 770-779-2855

(c) 404-849-7013

eric.hughes@abb.ventyx.com

Sent from my iPhone

On Jun 21, 2011, at 3:53 PM, "Sheridan, Timothy" <Timothy.Sheridan@lge-ku.com> wrote:

Eric,

We just had some internal discussions and at this point our Plan A is to continue to try to find and hopefully use T's&C's currently in place with Ventyx and PPL. Plan B would be to try to use a mutually agreeable version of the Ventyx consulting services document you sent today. With both the Plan A and the Plan B, would that require Ventyx's legal group to review and if so, are they available to do those reviews?

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Sheridan, Timothy
Sent: Tuesday, June 21, 2011 2:53 PM
To: 'Eric Hughes'
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Eric,

I understand but for our companies to be able to conduct business easily without rewriting special T's&C's each time (which is also very time consuming) it would be good to have general commercial terms that we can work with. Please see what you can do to have them review our ASA, redline and send back to me and we will see what we can accomplish.

Thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, June 20, 2011 5:14 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Tim;

As I have previously communicated to you, my legal department has a number of issues with your ASA that without satisfactory remedy will mean that Ventyx cannot execute this contract. I can request that they proceed with a markup of your contract and return a redline version to you; however, they have already informed me that with the end of the quarter rapidly approaching it will be at least next month and probably late in that month before they could devote their attention to this. That is why I had hoped we could bypass a new contract and utilize an old one. I will see what I can do, but I have no way to get the lawyers to conform to my desires.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, June 20, 2011 5:02 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

The attached will not work for this project. We have new ownership and no longer have the same name and the attached does not have all the commercial terms we would like to have in agreements going forward. We could possibly pull out the commercial terms from the attached and integrate them (along with other necessary term) into the new scope of work but we really need to get our ASA signed for this project and all future projects. Can we quickly get the ASA agreement finalized? In the meantime we are looking to see if PPL (our new parent company) has commercial terms in place with your company that we can use. Are you aware of any terms in place with PPL?

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, June 17, 2011 3:17 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Tim;

Here is the situation; we have a PSA already in play from October 1, 2008. This is contract #29275 (attached). If we can attach by reference to that contract with this SOW, then we can avoid a potentially protracted contract negotiation that will probably not get done until well into 3rd quarter. I have attached a copy of the SOW with the reference to the PSA contract. If this will serve our purposes please let me know before you sign it so that I can inform my legal department we are going down that road. Thanks.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com

www.ventyx.com

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Friday, June 17, 2011 8:35 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Ok, just send it back as soon as you can.

Thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, June 16, 2011 12:03 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE/KU Scope of Work for Life Assessment Study

Tim;

I have submitted the ASA and the SOW I have worked out with Stuart to our contracts/legal department for processing. However, based on a preliminary review I can tell you that a number of issues will need to be resolved and that the contract will have multiple redlines when I return it to you next. Hopefully this will not result in an overlong process and the Sales Exec assigned to LG&E-KU (Andrea Eisold) and I will stay on top of this to keep it moving forward. Thanks.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, June 13, 2011 5:14 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Eric,

I will be your contact as we work together on our Administrative Services Agreement (ASA) that Stuart sent you and you reference below. Please pass that on to your legal group and let me know if they have any questions. I will have other questions for you tomorrow as I look a little closer at the SOW.

Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Wilson, Stuart
Sent: Monday, June 13, 2011 8:38 AM
To: Sheridan, Timothy
Subject: FW: LGE/KU Scope of Work for Life Assessment Study

Tim,

Here's a good statement of work for our contract with Ventyx. I'll give you a call to discuss a plan forward.

Stuart

From: Eric Hughes [mailto:]
Sent: Friday, June 10, 2011 10:59 AM
To: Wilson, Stuart
Cc: Sebourn, Michael
Subject: LGE/KU Scope of Work for Life Assessment Study

Stuart;

Here is the reworked draft Statement of Work for the life Assessment Study that incorporates your comments and modifications to scope. I have removed the two additional scenarios, and the sensitivity and stochastic analysis portions. After careful consideration I also agree that the Final Report would be impacted as well and the estimate included here reflects that. Please let me know as soon as possible if this is how we want to proceed so I can begin the paperwork process. I will take the contract draft that you sent to me and get that started into our legal/contracting process. Please send me the correct contact in your purchasing/contracts/legal department that will need to work with my company's counterpart on the services agreement itself. Once that is nailed down the SOW just references it (in this case by attachment since we want the processed together) and getting that through is automatic. The only change I will still need to make to this SOW is to add in signature blocks at the end and attach a Rates Schedule to it. Let me know if you have any questions or concerns remaining. Thanks!

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com

www.ventyx.com

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information by persons or entities other than the intended recipient is not allowed. If you received this message and the information contained therein by error, please contact the sender and delete the material from your/any storage medium.

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/20/2011 9:09:26 AM

Tim;

I will get this in to my contracts department for legal review ASAP. The next step is for me to attach the Statement of Work that I have worked out with Stuart and then we can finalize any changes to this contract. At that time we can get signatures and proceed to get the work done. Thanks so much!

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:05 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

Please see our redlines on your shortform. I am hopeful we can now move forward.

NOTE: The extension for all E.ON U.S. e-mail addresses has changed from @eon-us.com to @lge-ku.com. Please update your address book accordingly.

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/20/2011 9:24:15 AM

Let me get the entire document together including the latest version of the SOW before I send it back to you so that there is no confusion as to Who's on first& I am reviewing your changes, and I will be deleting some of the instructions (highlighted) that you left in the document as well. This shouldn't take me too long provided the interruptions are minimal (no guarantees on that part around here!).

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:19 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Is there revisions that have been made or need to be made to the statement of work that will be attached to this short form? If you have the statement of work complete just as it will be attached please send to me for review.

I know I have seen previous versions but just want to be sure I have the most recent.

thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:09 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

I will get this in to my contracts department for legal review ASAP. The next step is for me to attach the Statement of Work that I have worked out with Stuart and then we can finalize any changes to this contract. At that time we can get signatures and proceed to get the work done. Thanks so much!

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:05 AM
To: Eric Hughes
Cc: Wilson, Stuart
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/20/2011 9:57:28 AM

Tim;

Here is the Short Form contract with the SOW attached. I will note that I do not believe that my legal department will be happy with your Section 6, and the striking of the beginning of what is now Section 7. Sections 8-10 may be OK but I will have to wait for my legal department's review to know. I presume I can direct my legal staff to speak to you directly to work out the final details?

Eric

PS to Stuart: I struck the section describing risk analysis in the SOW since we removed that from the estimate of the work. I believe this is fully consistent with our last communications on this project's scope. Thanks.

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:26 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Sounds fine. Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:24 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Let me get the entire document together including the latest version of the SOW before I send it back to you so that there is no confusion as to Who's on first&   I am reviewing your changes, and I will be deleting some of the instructions (highlighted) that you left in the document as well. This shouldn't take me too long provided the interruptions are minimal (no guarantees on that part around here!).

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Cc: Wilson, Stuart
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I know I have seen previous versions but just want to be sure I have the most recent.

thanks

Tim Sheridan
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(502) 627-3838 tel
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From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:09 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
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Tim;

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Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:05 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

Please see our redlines on your shortform. I am hopeful we can now move forward.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/21/2011 10:28:10 AM

Tim;

We can change the travel expenses to be at cost. I also don't see a problem with making the project cost a Not to Exceed Without Prior Client Authorization. As long as there are no changes in project scope, I am confident the work can be completed for the estimate provided. The not to exceed on travel expenses is problematic. We do not anticipate more than two trips by two people to Louisville for this project at this time. However, given the volatile nature of travel expenses (primarily airfare) any estimate of travel expenses would have to be skewed to the high side to ensure the not to exceed was not violated. It is Ventyx policy to not assume risk on travel costs as we do not have any way of controlling these other than to do our best to keep them to a minimum. If a conservative estimate as I describe above for the not to exceed is OK with you then I can work on that as well.

I have submitted this through our contracts tracking system already and I will have to go and discuss these changes with the person in Legal/Contracts that will do our review. At that time I can also find out when they will get this done. I'll let you know on that part.

Thanks.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

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Sent: Thursday, July 21, 2011 9:25 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

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LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

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I know I have seen previous versions but just want to be sure I have the most recent.

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Subject: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

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Please see our redlines on your shortform. I am hopeful we can now move forward.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/22/2011 11:48:00 AM

Tim;

My legal department is reviewing your redline of our short form contract today. I was surprised they got to it this quickly as they would not give me an estimate earlier this week when I asked. I informed them of your requested changes below. I should have something by the end of the day today.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, July 21, 2011 9:25 AM
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To: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/22/2011 11:57:16 AM

Stuart;

Let's talk early next week about getting this going. Now that we have some progress on the contracts side I think e can begin planning the project and set a realistic timetable.

Eric

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, July 22, 2011 11:54 AM
To: Sheridan, Timothy; Eric Hughes
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Yes. Thanks. Anxious to get going. I know you are as well.

From: Sheridan, Timothy
Sent: Friday, July 22, 2011 11:49 AM
To: 'Eric Hughes'
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Great thanks Eric!

Tim Sheridan
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE-KU - Redlined Short Form Agreement and SOW
Date: 7/25/2011 4:55:30 PM

Tim;

At the time we started this process, negotiating a full blown Professional Services Agreement was likely to not even get started until about now, which given Stuart's desire to start this project by August 1 did not seem workable. As we were unable to find any older agreements that could be mutually agreed upon to use as a basis, I had hoped that Ventyx's short form agreement would serve and we could get started with the work sooner rather than later. However; due to the additional terms and conditions you require to meet your legal needs but that are also in conflict with Ventyx's legal needs I see no recourse but to go back to square one and negotiate a full PSA. I have asked if someone is available who can negotiate with you on the terms added to our short form or the PSA. Be aware that the warrantees and liability insurance points are not within my power to negotiate, and the terms you propose will never be acceptable to Ventyx. I have no authority to move this forward against my legal department's objections.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, July 25, 2011 9:34 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE-KU - Redlined Short Form Agreement and SOW

Eric,

Legal has reviewed the attached and cannot accept the proposed redlines. Under all circumstances we prefer to use our administrative services agreement. Ventyx has not been willing to come to terms with that option so we have adjusted your short form to meet our legal needs. Legal stands firm with the redlines I sent you on the attached. What do you propose at this point?

Tim Sheridan
LG&E and KU Services Company

(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, July 22, 2011 4:48 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: FW: LGE-KU - Redlined Short Form Agreement and SOW

Tim;

Here is what I have from my legal department. There are still a larger number of redlines in here and at this time it is not clear to me how to proceed. They have accepted changes we can agree to. However the remaining redlines are what we cannot agree to, and they have also inserted our own standard language in some places. The insurances changes came straight from ABB Risk Management and they are also included. I will see if I can get someone to work directly with you to resolve these issues.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: LGE-KU - Redlined Short Form Agreement and SOW
Date: 7/27/2011 9:47:10 AM

Tim;

I realize that this process has taken way too long, and I am as frustrated and concerned by this as you are. I have taken several steps over the last couple of days to elevate this contract issue with both my direct management, and the management of the sales and legal departments at Ventyx:

· I have brought my manager, Norm Richardson, into this to apply some higher level pressure.

· I have also brought in the Ventyx Sales Executive for the LGE-KU account, Andrea Eisold, to apply pressure from that part of the organization.

· I have also copied the head of the Ventyx legal and contracts department, Adam Vexler, on our email exchanges, and in particular on my questions to his staff on how to get this moved forward.

· Finally, I have suggested to Adam and his staff that someone get on the phone and talk with your legal department and iron this out as I feel that the exchange of redline versions of the contract has stalled the process.

The current state of the redlined contract feels like Stalemate, and I am convinced that direct verbal negotiation can most likely resolve this. Please let me know who in your legal department I should direct my legal people to work with to unstuck this.

My group is ready and able to move forward on this project immediately upon concluding a successful contract. I thank you for your continued patience and willingness to work this thorough.

Eric Hughes
Vice President - Advisors

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Sent: Wednesday, July 27, 2011 8:57 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: LGE-KU - Redlined Short Form Agreement and SOW

Eric,

These T and C delays with Ventyx has raised many eyebrows within the organization and a high level update meeting has been schedule for today. It would be best if we could report that we have worked through all the T&C issues and are ready to move forward. Can you see if you can work with your legal to make that happen?

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, July 26, 2011 4:17 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE-KU - Redlined Short Form Agreement and SOW

Tim;

I will see how legal feels about this one. Thanks for continuing the effort!

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Tuesday, July 26, 2011 4:12 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE-KU - Redlined Short Form Agreement and SOW

Eric,

Please see attach. Can we move forward with this?

Thanks

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, July 25, 2011 4:55 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: LGE-KU - Redlined Short Form Agreement and SOW

Tim;

At the time we started this process, negotiating a full blown Professional Services Agreement was likely to not even get started until about now, which given Stuart's desire to start this project by August 1 did not seem workable. As we were unable to find any older agreements that could be mutually agreed upon to use as a basis, I had hoped that Ventyx's short form agreement would serve and we could get started with the work sooner rather than later. However; due to the additional terms and conditions you require to meet your legal needs but that are also in conflict with Ventyx's legal needs I see no recourse but to go back to square one and negotiate a full PSA. I have asked if someone is available who can negotiate with you on the terms added to our short form or the PSA. Be aware that the warrantees and liability insurance points are not within my power to negotiate, and the terms you propose will never be acceptable to Ventyx. I have no authority to move this forward against my legal department's objections.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Monday, July 25, 2011 9:34 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: LGE-KU - Redlined Short Form Agreement and SOW

Eric,

Legal has reviewed the attached and cannot accept the proposed redlines. Under all circumstances we prefer to use our administrative services agreement. Ventyx has not been willing to come to terms with that option so we have adjusted your short form to meet our legal needs. Legal stands firm with the redlines I sent you on the attached. What do you propose at this point?

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, July 22, 2011 4:48 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: FW: LGE-KU - Redlined Short Form Agreement and SOW

Tim;

Here is what I have from my legal department. There are still a larger number of redlines in here and at this time it is not clear to me how to proceed. They have accepted changes we can agree to. However the remaining redlines are what we cannot agree to, and they have also inserted our own standard language in some places. The insurances changes came straight from ABB Risk Management and they are also included. I will see if I can get someone to work directly with you to resolve these issues.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/27/2011 12:04:16 PM

Tim;

Given the issues on the T&C's I had not made these changes directly in the document. I think the travel cost item was dealt with and I know that I need to estimate the travel costs, but I don't know about the not-to-exceed item. I'll have to check on that.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 27, 2011 12:02 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

Did we get the below resolved? In my mind, I don't think we actually nailed down it down. Please see my notes below in red.

Thanks

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, July 21, 2011 10:28 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

We can change the travel expenses to be at cost. Please change the language. I also don't see a problem with making the project cost a Not to Exceed Without Prior Client Authorization. As long as there are no changes in project scope, I am confident the work can be completed for the estimate provided. Please change the language. The not to exceed on travel expenses is problematic. We do not anticipate more than two trips by two people to Louisville for this project at this time. However, given the volatile nature of travel expenses (primarily airfare) any estimate of travel expenses would have to be skewed to the high side to ensure the not to exceed was not violated. It is Ventyx policy to not assume risk on travel costs as we do not have any way of controlling these other than to do our best to keep them to a minimum. If a conservative estimate as I describe above for the not to exceed is OK with you then I can work on that as well. OK, please do.

I have submitted this through our contracts tracking system already and I will have to go and discuss these changes with the person in Legal/Contracts that will do our review. At that time I can also find out when they will get this done. I'll let you know on that part.

Thanks.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

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eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, July 21, 2011 9:25 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

A few things on the SOW. It is generally our policy to pay travel charges at cost. We would also like to ask for your estimated project cost to be a not to exceed cost with an estimated not to exceed travel cost. Can we change the language to reflect that and we will need an estimated travel cost.

Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:57 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

Here is the Short Form contract with the SOW attached. I will note that I do not believe that my legal department will be happy with your Section 6, and the striking of the beginning of what is now Section 7. Sections 8-10 may be OK but I will have to wait for my legal department's review to know. I presume I can direct my legal staff to speak to you directly to work out the final details?

Eric

PS to Stuart: I struck the section describing risk analysis in the SOW since we removed that from the estimate of the work. I believe this is fully consistent with our last communications on this project's scope. Thanks.

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:26 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Sounds fine. Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:24 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Let me get the entire document together including the latest version of the SOW before I send it back to you so that there is no confusion as to Who's on first& I am reviewing your changes, and I will be deleting some of the instructions (highlighted) that you left in the document as well. This shouldn't take me too long provided the interruptions are minimal (no guarantees on that part around here!).

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:19 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Is there revisions that have been made or need to be made to the statement of work that will be attached to this short form? If you have the statement of work complete just as it will be attached please send to me for review.

I know I have seen previous versions but just want to be sure I have the most recent.

thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:09 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

I will get this in to my contracts department for legal review ASAP. The next step is for me to attach the Statement of Work that I have worked out with Stuart and then we can finalize any changes to this contract. At that time we can get signatures and proceed to get the work done. Thanks so much!

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:05 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

Please see our redlines on your shortform. I am hopeful we can now move forward.

____

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To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/28/2011 12:33:12 PM

The head of my legal department just passed this to someone else in his department to deal with. He is reviewing the contract now.

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, July 28, 2011 12:07 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

How is this coming along? Can we get this wrapped up today?

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 27, 2011 12:04 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

Given the issues on the T&C's I had not made these changes directly in the document. I think the travel cost item was dealt with and I know that I need to estimate the travel costs, but I don't know about the not-to-exceed item. I'll have to check on that.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]

Sent: Wednesday, July 27, 2011 12:02 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

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Eric Hughes
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Tim Sheridan
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(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

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Sent: Wednesday, July 20, 2011 9:24 AM
To: Sheridan, Timothy
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Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

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Sent: Wednesday, July 20, 2011 9:19 AM

To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

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I know I have seen previous versions but just want to be sure I have the most recent.

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Tim Sheridan
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Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

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Eric

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Sent: Wednesday, July 20, 2011 9:05 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

Please see our redlines on your shortform. I am hopeful we can now move forward.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx
Date: 7/28/2011 4:00:56 PM

PS   I added in the NTE on the professional fees and a high NTE estimate on the travel costs. I also put in that the travel costs would be billed as incurred, but every effort to keep them to a minimum would be made. The 10% markup had already been removed; or at least I couldn't find it anymore in that attachment A.

From: Eric Hughes
Sent: Thursday, July 28, 2011 3:59 PM
To: 'Sheridan, Timothy'
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

I just talked to Joe Treanor in my legal department and he will be calling you about two items. 95% there, I think&

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, July 28, 2011 12:07 PM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

How is this coming along? Can we get this wrapped up today?

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 27, 2011 12:04 PM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

Given the issues on the T&C's I had not made these changes directly in the document. I think the travel cost item was dealt with and I know that I need to estimate the travel costs, but I don't know about the not-to-exceed item. I'll have to check on that.

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 27, 2011 12:02 PM
To: Eric Hughes
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Subject: FW: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

Did we get the below resolved? In my mind, I don't think we actually nailed down it down. Please see my notes below in red.

Thanks

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, July 21, 2011 10:28 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

We can change the travel expenses to be at cost. Please change the language. I also don't see a problem with making the project cost a Not to Exceed Without Prior Client Authorization. As long as there are no changes in project scope, I am confident the work can be completed for the estimate provided. Please change the language. The not to exceed on travel expenses is problematic. We do not anticipate more than two trips by two people to Louisville for this project at this time. However, given the volatile nature of travel expenses (primarily airfare) any estimate of travel expenses would have to be skewed to the high side to ensure the not to exceed was not violated. It is Ventyx policy to not assume risk on travel costs as we do not have any way of controlling these other than to do our best to keep them to a minimum. If a conservative estimate as I describe above for the not to exceed is OK with you then I can work on that as well. OK, please do.

I have submitted this through our contracts tracking system already and I will have to go and discuss these changes with the person in Legal/Contracts that will do our review. At that time I can also find out when they will get this done. I'll let you know on that part.

Thanks.

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Thursday, July 21, 2011 9:25 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: FW: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

A few things on the SOW. It is generally our policy to pay travel charges at cost. We would also like to ask for your estimated project cost to be a not to exceed cost with an estimated not to exceed travel cost. Can we change the language to reflect that and we will need an estimated travel cost.

Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax

Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:57 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

Here is the Short Form contract with the SOW attached. I will note that I do not believe that my legal department will be happy with your Section 6, and the striking of the beginning of what is now Section 7. Sections 8-10 may be OK but I will have to wait for my legal department's review to know. I presume I can direct my legal staff to speak to you directly to work out the final details?

Eric

PS to Stuart: I struck the section describing risk analysis in the SOW since we removed that from the estimate of the work. I believe this is fully consistent with our last communications on this project's scope. Thanks.

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:26 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Sounds fine. Thanks!

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:24 AM
To: Sheridan, Timothy

Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Let me get the entire document together including the latest version of the SOW before I send it back to you so that there is no confusion as to Who's on first& I am reviewing your changes, and I will be deleting some of the instructions (highlighted) that you left in the document as well. This shouldn't take me too long provided the interruptions are minimal (no guarantees on that part around here!).

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:19 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Is there revisions that have been made or need to be made to the statement of work that will be attached to this short form? If you have the statement of work complete just as it will be attached please send to me for review.

I know I have seen previous versions but just want to be sure I have the most recent.

thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, July 20, 2011 9:09 AM
To: Sheridan, Timothy
Cc: Wilson, Stuart
Subject: RE: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Tim;

I will get this in to my contracts department for legal review ASAP. The next step is for me to attach the Statement of Work that I have worked out with

Stuart and then we can finalize any changes to this contract. At that time we can get signatures and proceed to get the work done. Thanks so much!

Eric

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Wednesday, July 20, 2011 9:05 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: Ventyx Inc Short Form Consulting Agreement (Rev May 2011) DHC 7-19-2011.docx

Eric,

Please see our redlines on your shortform. I am hopeful we can now move forward.

____

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Let's coordinate gertting this going
Date: 8/2/2011 9:33:56 AM

Stuart;

I would like the primary person that will work on this, Norm Lee, to sit in on our conversation. What time works best for you?

Eric

=

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Sheridan, Timothy
Subject: RE: Ventyx Contract
Date: 8/2/2011 9:44:20 AM

Thanks Tim! I am charging over to legal/contracts right now to get this on the first priority!

Stuart: We can talk anytime about how to get started. But I might be tied up for a few minutes over in legal&

From: Sheridan, Timothy [mailto:Timothy.Sheridan@lge-ku.com]
Sent: Tuesday, August 02, 2011 9:39 AM
To: Eric Hughes
Cc: Wilson, Stuart
Subject: Ventyx Contract

Eric,

Please review, sign, scan and return via email.

Please pass along to your acct. group that all invoices should reference our CPA (Contract Purchase Agreement) # 54976 that is written at the top of the first page of the contract. Invoices must be sent to LG&E and KU Services Company at 220 W. Main Street, Louisville, KY 40202 attention Stuart Wilson.

Thanks

Tim Sheridan
LG&E and KU Services Company
(502) 627-3838 tel
(502) 217-2170 fax
Timothy.Sheridan@lge-ku.com

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Let's coordinate gertting this going
Date: 8/2/2011 1:27:34 PM

2 PM will work just fine for us! Please call us at my office: 770-779-2855.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, August 02, 2011 1:21 PM
To: Eric Hughes
Subject: RE: Let's coordinate gertting this going

Are you guys free at 2:00 PM?

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 9:34 AM
To: Wilson, Stuart
Subject: Let's coordinate gertting this going

Stuart;

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Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: FW: * TEST * Asset Retirement Analysis - Register Now * TEST *
Date: 8/2/2011 2:48:55 PM

I'm not sure if this has officially gone out yet, but it was slated for sometime today.

The link for registration is hot however. If you click on it you then look to the upper left where it says Not Started. REGISTER. And then click on Register.

From: Eric Hughes, Ventyx [mailto:info@abb.ventyx.com]
Sent: Monday, August 01, 2011 9:46 AM
To: Juanita Mugo
Subject: * TEST * Asset Retirement Analysis - Register Now * TEST *

View on a mobile device <http://app.en25.com/e/es.aspx?s=947&e=8584&elq=28590d132c6b487182674d6e8e203833> | Read the online version <http://now.eloqua.com/es.asp?s=947&e=8584&elq=28590d132c6b487182674d6e8e203833> .

header <http://img.en25.com/eloquaimages/clients/Ventyx/%7Bcf2043e7-262a-4cf2-a0ac-79397b0844b5%7D_ventyx-bar-blue.gif>

<http://img.en25.com/eloquaimages/clients/Ventyx/%7Bc96d8a46-d6a6-44cf-adeb-ff0a6fd625e3%7D_1px_wht.gif>

Ventyx, an ABB company, webcast
Asset Retirement Analysis, Determining the End of Economic Life
August 16, 1:00pm ET

Juanita,

Please join us for this third in the four part Resource Planning Webcast Series where we will present an analytical framework and methodology for determining when a generation asset will reach the end of its Economic Life.

With many large capacity generation assets at or beyond their original design operating lives, many companies are facing difficult decisions on when or whether to retire these assets. From the many options for replacing an aging asset to the multiple alternatives for extending its life, the retire or not retire decision is complex and is becoming even more so as increasingly stringent environmental regulations are imposed. This webcast will address the many factors complicating these decisions and present an analytical framework for assessing the myriad and conflicting options available to company executives.

Eric Hughes will lead our discussion covering how to:

* Identify the key considerations in the asset retirement decision.
* Establish the framework and information required for Asset Disposition Decisions.
* Address the role of risk analysis in the retire decision.
* Develop a working understanding of the steps in developing an Asset Disposition Assessment.

Register: Asset Retirement Analysis <http://app.en25.com/e/er.aspx?s=947&lid=995&elq=28590d132c6b487182674d6e8e203833>

We look forward to having you join us.

Sincerely,

Eric Hughes
Vice President of Advisors for Resource Planning

Norman Lee
Principal Consultant - Advisors

<http://img.en25.com/eloquaimages/clients/Ventyx/%7Bef4f143f-b612-4613-8c32-b0f57d2b12ec%7D_VentyxABB-footer-blue.gif>

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Let's coordinate gertting this going
Date: 8/2/2011 3:29:42 PM

I checked the flights, and they are slightly better than what I found when I gave Tim an estimate. They are not what I would consider good, but not as bad as I feared: $728.60 per person round trip. It does not seem to matter if we fly up on Tuesday afternoon the 16th and back on the evening of the 18th, or up in the morning on Wednesday the 17th and back around noon that Friday. Waiting until the next week knocks about $200 per ticket off of that price; but may interfere with your expected regulatory requests. Let me know on that schedule as soon as you can. E.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, August 02, 2011 1:21 PM
To: Eric Hughes
Subject: RE: Let's coordinate gertting this going

Are you guys free at 2:00 PM?

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 9:34 AM
To: Wilson, Stuart
Subject: Let's coordinate gertting this going

Stuart;

I would like the primary person that will work on this, Norm Lee, to sit in on our conversation. What time works best for you?

Eric

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From: Wilson, Stuart
To: 'Eric Hughes'
Subject: Proposed Meeting Dates
Date: 8/3/2011 1:33:32 PM

Eric,

If it works with you, the afternoon of the 17th and the 18th (all day if necessary) are good with us. Lou Anne will pass along our database and the units to consider in the analysis later today.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 3:30 PM
To: Wilson, Stuart
Cc: Norman Lee
Subject: RE: Let's coordinate gertting this going

I checked the flights, and they are slightly better than what I found when I gave Tim an estimate. They are not what I would consider good, but not as bad as I feared: $728.60 per person round trip. It does not seem to matter if we fly up on Tuesday afternoon the 16th and back on the evening of the 18th, or up in the morning on Wednesday the 17th and back around noon that Friday. Waiting until the next week knocks about $200 per ticket off of that price; but may interfere with your expected regulatory requests. Let me know on that schedule as soon as you can. E.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, August 02, 2011 1:21 PM
To: Eric Hughes
Subject: RE: Let's coordinate gertting this going

Are you guys free at 2:00 PM?

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 9:34 AM
To: Wilson, Stuart
Subject: Let's coordinate gertting this going

Stuart;

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Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Proposed Meeting Dates
Date: 8/3/2011 1:36:57 PM

Great! We'll work on reservations and such as well.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, August 03, 2011 1:34 PM
To: Eric Hughes
Cc: Norman Lee; Karavayev, Louanne
Subject: Proposed Meeting Dates

Eric,

If it works with you, the afternoon of the 17th and the 18th (all day if necessary) are good with us. Lou Anne will pass along our database and the units to consider in the analysis later today.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 3:30 PM
To: Wilson, Stuart
Cc: Norman Lee
Subject: RE: Let's coordinate gertting this going

I checked the flights, and they are slightly better than what I found when I gave Tim an estimate. They are not what I would consider good, but not as bad as I feared: $728.60 per person round trip. It does not seem to matter if we fly up on Tuesday afternoon the 16th and back on the evening of the 18th, or up in the morning on Wednesday the 17th and back around noon that Friday. Waiting until the next week knocks about $200 per ticket off of that price; but may interfere with your expected regulatory requests. Let me know on that schedule as soon as you can. E.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, August 02, 2011 1:21 PM
To: Eric Hughes
Subject: RE: Let's coordinate gertting this going

Are you guys free at 2:00 PM?

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 9:34 AM
To: Wilson, Stuart
Subject: Let's coordinate gertting this going

Stuart;

I would like the primary person that will work on this, Norm Lee, to sit in on our conversation. What time works best for you?

Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Proposed Meeting Dates
Date: 8/3/2011 5:24:04 PM

Flights are available, if w can get out on the 5:05 pm flight we can do it for the price I quoted earlier ($728.60 per person). If we wait until the 7:38 PM flight the price goes up to $836 a head& Do you think we can make it out for a 5:05 PM flight? Or will that be cutting it too fine? Flights in are no problem; we can get there by 10:30 in the morning (to your offices that is). I also looked at staying until Friday morning and that drops the price to $696 a head. But then there's an extra night hotel and a couple of meals, so it's probably a wash vs. 7:38 the evening before.

What would you prefer?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, August 03, 2011 1:34 PM
To: Eric Hughes
Cc: Norman Lee; Karavayev, Louanne
Subject: Proposed Meeting Dates

Eric,

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Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 3:30 PM
To: Wilson, Stuart
Cc: Norman Lee
Subject: RE: Let's coordinate gertting this going

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From: Wilson, Stuart
To: 'eric.hughes@abb.ventyx.com'
Subject: Re: Proposed Meeting Dates
Date: 8/3/2011 5:48:52 PM

You're coming in on the 17th, right? Leaving by 3:30 the next day to catch a 5:00 flight shouldn't be a problem.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, August 03, 2011 05:24 PM
To: Wilson, Stuart
Cc: Norman Lee <Norman.Lee@abb.ventyx.com>; Karavayev, Louanne
Subject: RE: Proposed Meeting Dates

Flights are available, if w can get out on the 5:05 pm flight we can do it for the price I quoted earlier ($728.60 per person). If we wait until the 7:38 PM flight the price goes up to $836 a head& Do you think we can make it out for a 5:05 PM flight? Or will that be cutting it too fine? Flights in are no problem; we can get there by 10:30 in the morning (to your offices that is). I also looked at staying until Friday morning and that drops the price to $696 a head. But then there's an extra night hotel and a couple of meals, so it's probably a wash vs. 7:38 the evening before.

What would you prefer?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, August 03, 2011 1:34 PM
To: Eric Hughes
Cc: Norman Lee; Karavayev, Louanne
Subject: Proposed Meeting Dates

Eric,

If it works with you, the afternoon of the 17th and the 18th (all day if necessary) are good with us. Lou Anne will pass along our database and the units to consider in the analysis later today.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 3:30 PM

To: Wilson, Stuart
Cc: Norman Lee
Subject: RE: Let's coordinate gertting this going

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Eric

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Any views expressed in this email = message are those of the individual sender except where the sender = specifically states them to be the views of Ventyx.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Re: Proposed Meeting Dates
Date: 8/3/2011 5:59:48 PM

Yes; arrive on the 17th and out on the 18th. We'll book the flights. Thanks.

Eric Hughes
(o) 770-779-2855
(c) 404-849-7013
eric.hughes@abb.ventyx.com
Sent from my iPhone

On Aug 3, 2011, at 5:49 PM, "Wilson, Stuart" <Stuart.Wilson@lge-ku.com> wrote:

You're coming in on the 17th, right? Leaving by 3:30 the next day to catch a 5:00 flight shouldn't be a problem.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, August 03, 2011 05:24 PM
To: Wilson, Stuart
Cc: Norman Lee <Norman.Lee@abb.ventyx.com>; Karavayev, Louanne
Subject: RE: Proposed Meeting Dates

Flights are available, if w can get out on the 5:05 pm flight we can do it for the price I quoted earlier ($728.60 per person). If we wait until the 7:38 PM flight the price goes up to $836 a head& Do you think we can make it out for a 5:05 PM flight? Or will that be cutting it too fine? Flights in are no problem; we can get there by 10:30 in the morning (to your offices that is). I also looked at staying until Friday morning and that drops the price to $696 a head. But then there's an extra night hotel and a couple of meals, so it's probably a wash vs. 7:38 the evening before.

What would you prefer?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, August 03, 2011 1:34 PM
To: Eric Hughes
Cc: Norman Lee; Karavayev, Louanne
Subject: Proposed Meeting Dates

Eric,

If it works with you, the afternoon of the 17th and the 18th (all day if necessary) are good with us. Lou Anne will pass along our database and the units to consider in the analysis later today.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 3:30 PM
To: Wilson, Stuart
Cc: Norman Lee
Subject: RE: Let's coordinate gertting this going

I checked the flights, and they are slightly better than what I found when I gave Tim an estimate. They are not what I would consider good, but not as bad as I feared: $728.60 per person round trip. It does not seem to matter if we fly up on Tuesday afternoon the 16th and back on the evening of the 18th, or up in the morning on Wednesday the 17th and back around noon that Friday. Waiting until the next week knocks about $200 per ticket off of that price; but may interfere with your expected regulatory requests. Let me know on that schedule as soon as you can. E.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, August 02, 2011 1:21 PM
To: Eric Hughes
Subject: RE: Let's coordinate gertting this going

Are you guys free at 2:00 PM?

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, August 02, 2011 9:34 AM
To: Wilson, Stuart
Subject: Let's coordinate gertting this going

Stuart;

I would like the primary person that will work on this, Norm Lee, to sit in on our conversation. What time works best for you?

Eric

=

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From: Wilson, Stuart
To: 'Eric Hughes'
Subject: RE:
Date: 8/8/2011 5:36:18 PM

No. The Hyatt or Galt House are oftentimes good options (and close to our offices). If you find a better deal, don't hesitate. With the exception of the Brown, most downtown hotels are easily within walking distance. We're located at 3rd and Main.

Different topic& Do you have a table of heat rate, capacity and O&M escalation assumptions that we used in the 2007 study (for each plant)? Before you guys come next week, I need to get the right people thinking about these assumptions.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, August 08, 2011 5:07 PM
To: Wilson, Stuart
Cc: Karavayev, Louanne
Subject:

Stuart;

Do you guys have a preferred hotel? Or should we just pick one nearby?

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

=

____

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE:
Date: 8/10/2011 3:41:04 PM

We are booking into the Courtyard. A little farther away than your options but a bit cheaper. Best not to use up those travel dollars early! Thanks.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Monday, August 08, 2011 5:36 PM
To: Eric Hughes
Cc: Karavayev, Louanne
Subject: RE:

No. The Hyatt or Galt House are oftentimes good options (and close to our offices). If you find a better deal, don't hesitate. With the exception of the Brown, most downtown hotels are easily within walking distance. We're located at 3rd and Main.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE:
Date: 8/10/2011 3:42:38 PM

Oops! I meant to also say that I am checking to see if I still have the spreadsheets we used to develop that data from the last time around. I probably do, but I need to be sure I get you the last versions. Stay tuned.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Monday, August 08, 2011 5:36 PM
To: Eric Hughes
Cc: Karavayev, Louanne
Subject: RE:

No. The Hyatt or Galt House are oftentimes good options (and close to our offices). If you find a better deal, don't hesitate. With the exception of the Brown, most downtown hotels are easily within walking distance. We're located at 3rd and Main.

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Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, August 08, 2011 5:07 PM
To: Wilson, Stuart
Cc: Karavayev, Louanne
Subject:

Stuart;

Do you guys have a preferred hotel? Or should we just pick one nearby?

Eric Hughes
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE:
Date: 8/10/2011 4:42:38 PM

Stuart and Louanne;

Here is the problem I am finding for the data I used last time around (and I'm getting an old familiar headache looking at this again&). The forecast data for some of this information came directly out of the Strategist database, and I then asked for a bunch of additional data to try and determine where to put each resource on a theoretical cost escalation curve (a Hockey Stick curve). The issue is that the forecasts generally look at the last couple of years, and then apply an escalation rate (to cost items) that is tied to inflation or some other economic index. For heat rate and capacity degradation, we started with the values found in Strategist and then estimated the degradation. We had to do this because the projections are always based on a recent year average, and stay flat over the planning horizon. So while we could get lots of data; none of it made forecast assumptions that matched up with what we know should happen to these costs. In addition, some items that will remain totally flat (or escalate at a predictable rate) like insurance and property taxes are not split out of the O&M costs. To make things more complicated, when I asked for historical O&M costs the accounting people couldn't separate out the variable from the fixed components. In some cases they couldn't even supply information to let me separate out these costs from unit totals they could provide. Thus, I wound up with boatloads of spreadsheets where I might only be able to glean one or two items for one or two units out of each of them.

So I don't know how valuable any tables of data I could generate for you would be. A listing of data that we know is affected by the age of the unit is as follows:

Operational Data:

Capacity and capacity states

Heat Rates

Forced Outage Rate

Maintenance Requirement (this is the scheduled maintenance needed)

Cost Data:

Variable O&M cost ($/MWH)

Fixed O&M costs (and what is included!)

Insurance Costs

Property taxes

Annual Capital Improvement Expenditures (Cap Ex)

In the 2007 study, for which I have attached what I think is the spreadsheet I used to get the data into the proper form for entry into Strategist, we mostly dealt with the cost data and did not apply any escalating degradation factors to the operational data, per say. We took our best guess at a unit average lifetime value for each of the operating parameters and attempted to fit each unit's parameter by testing different escalation rates over the unit's lifetime to make this average come out right. The problem with this approach is that the average lifetime estimates available appear to be overly optimistic and appear to mostly ignore the expected Hockey Stick phenomenon. Not an unusual occurrence given that OEM's are the source for this information. Since then we have done more research and can better project the degradation rates of the operational data. In addition, we also have access to the Energy Velocity database that may help us better estimate these rates; but as of today we have not investigated this possibility. We will.

OK. This is a very long winded response to a seemingly straight forward request. But as with just about everything we will ultimately touch during this analysis, the answer is more complex then it would appear at first glance.

Eric

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Monday, August 08, 2011 5:36 PM
To: Eric Hughes
Cc: Karavayev, Louanne
Subject: RE:

No. The Hyatt or Galt House are oftentimes good options (and close to our offices). If you find a better deal, don't hesitate. With the exception of the Brown, most downtown hotels are easily within walking distance. We're located at 3rd and Main.

Different topic& Do you have a table of heat rate, capacity and O&M escalation assumptions that we used in the 2007 study (for each plant)? Before you guys come next week, I need to get the right people thinking about these assumptions.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]

Sent: Monday, August 08, 2011 5:07 PM
To: Wilson, Stuart
Cc: Karavayev, Louanne
Subject:

Stuart;

Do you guys have a preferred hotel? Or should we just pick one nearby?

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From: Wilson, Stuart
To: 'Eric Hughes'; Norman Lee
Subject: Today
Date: 8/18/2011 7:04:10 AM

Eric/Norm,

If it makes sense to you guys, I'd like to meet this morning around 8:30 to talk about our templates and any other thoughts you may have from last night. Then, I pushed our meeting with Eric Slack (heat rates) back to 10:30 so we could go through the more detailed economic carrying charge presentation from 9:00 to 10:00. I'm assuming our meeting with Eric won't take long. We're still scheduled to meet with Dave Cosby and Elaine Welsh (financial reporting/forecasting) at 11:00. Objective there in my mind will be to make sure we're categorizing our cost items correctly. For example, we don't currently model general' VOM in Strategist (or PROSYM), but I suspect these costs are included in our fixed O&M bucket. Dave and Elaine can help us determine whether this is the case.

Make sense?

Stuart

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Norman Lee
Subject: RE: Today
Date: 8/18/2011 7:10:20 AM

Sounds good to me. We'll arrive downstairs a little before 8:30 then! Thanks.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, August 18, 2011 7:04 AM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: Today

Eric/Norm,

If it makes sense to you guys, I'd like to meet this morning around 8:30 to talk about our templates and any other thoughts you may have from last night. Then, I pushed our meeting with Eric Slack (heat rates) back to 10:30 so we could go through the more detailed economic carrying charge presentation from 9:00 to 10:00. I'm assuming our meeting with Eric won't take long. We're still scheduled to meet with Dave Cosby and Elaine Welsh (financial reporting/forecasting) at 11:00. Objective there in my mind will be to make sure we're categorizing our cost items correctly. For example, we don't currently model general' VOM in Strategist (or PROSYM), but I suspect these costs are included in our fixed O&M bucket. Dave and Elaine can help us determine whether this is the case.

Make sense?

Stuart

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: template.xlsx
Date: 8/18/2011 11:51:29 AM

Hertemplate.e is my first cut at the template.

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Existing Data

Operations	2011	2012	2013	2014	2015	2016
FOR						
HR						
Capacity						
Maintenance (Planned)						
Emmissions						
CO2						
SO2						
NOX						
HG						
Cost Data						
Consumables						
Ash handling						
Required maintenance						
FOM						
Periodic maintenance						
Operations						
Planned outages						
Admin cost						
Property taxes						
Insurance						
Allocated company overhead						
Cap EX						
Annual on-going						
Periodic						
One time						
(i.e. bag house, etc.)						

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016
FOR						
HR						
Capacity						
Maintenance (Planned)						
Emmissions						
CO2						
SO2						
NOX						
HG						
Cost Data						
Consumables						

- Ash handling
- Required maintenance

FOM

- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX

- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

2017	2018	2019	2020	2021	2022	2023	2024	2025

2017	2018	2019	2020	2021	2022	2023	2024	2025

2026	2027	2028	2029	2030	2031	2032	2033	2034

2026	2027	2028	2029	2030	2031	2032	2033	2034

2035	2036	2037	2038	2039	2040

2035	2036	2037	2038	2039	2040

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne; Baker, Bryan; Carter, Bud
Subject: Sample formula for variables
Date: 8/22/2011 4:13:15 PM

Stuart and LGE-KU Team,

I have attached a spreadsheet that shows an example of a logistic function. We believe this does a good job at representing the hockey stick type escalation of the degrading variables. The spreadsheet show the logistic function and its application to a $100 escalated at 2.5%. Please take a look at it and let me know what you think. If it is acceptable I will start work at trying to incorporate it into the template spreadsheets.

I have also looked through my articles from H.G. Stoll at GE and was not able to find the one that Bud was thinking about. If any of you happen to find it please let me know.

If you would like to discuss this with me or have any questions , please give me a call .

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com <mailto:norman.lee@Ventyx.com>

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne; Baker, Bryan; Carter, Bud
Subject: Application of Logistic function to template
Date: 8/23/2011 1:24:09 PM

Team,

I have extended the logistic function to include the following:

1. I have removed the variable w from the calculation since it was redundant with c .

2. The single escalation variable has been replaced with the annual escalation stream. This will allow for easily incorporating the formula into the template spreadsheets.

3. I have added a spreadsheet showing the use of the same formula to model the degradation of the maximum operating capacity of the unit.

The only issue to be added to the above extended formula is a method for incorporating the bumps that occur at the time of major maintenance.

Please let me know what you think of the approach.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com <mailto:norman.lee@Ventyx.com>

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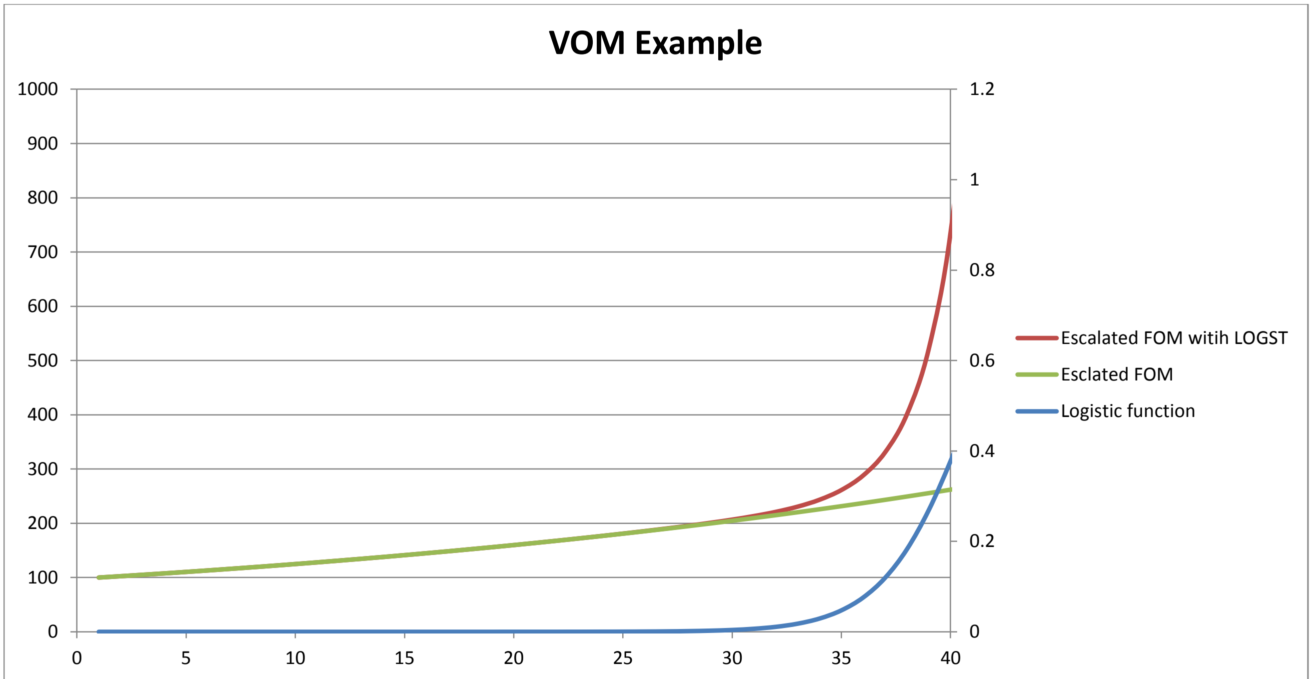
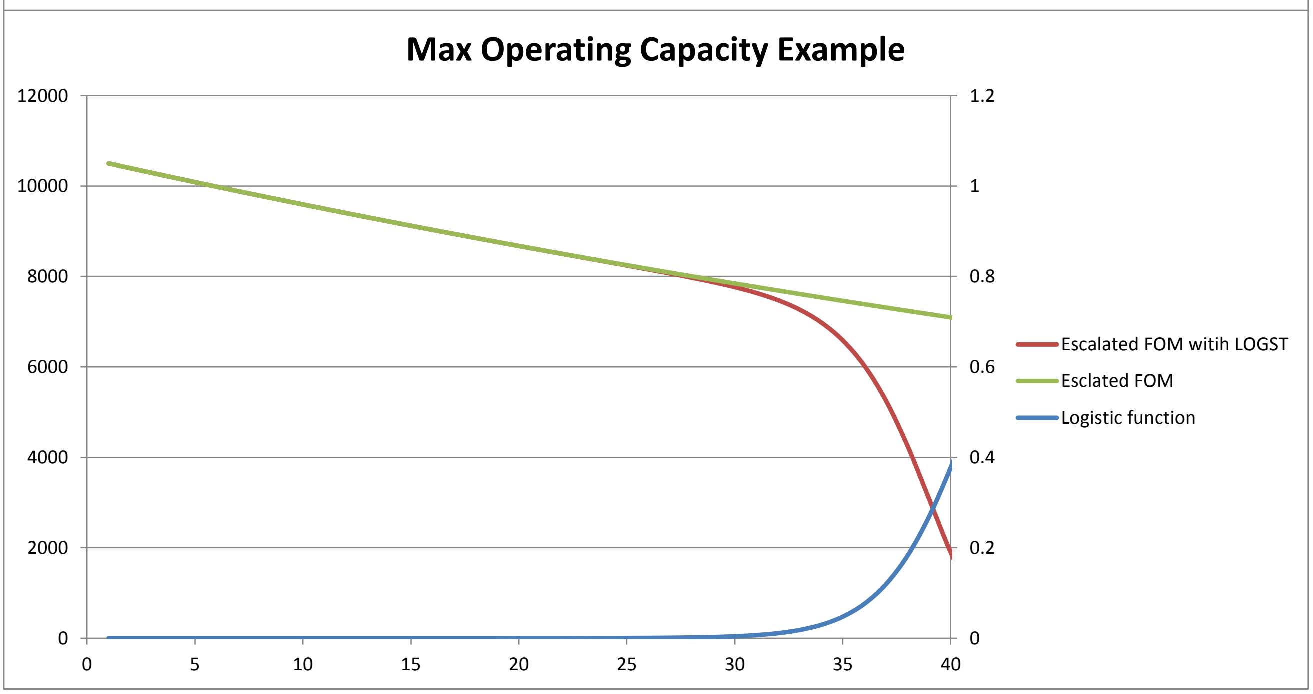

VOM Example
1000
900
800
700
600
500
400
300
200
100
0
1.2
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
30
35
40
Escalated FOM witih LOGST
Esclated FOM
Logistic function


Max Operating Capacity Example
12000
10000
8000
6000
4000
2000
0
1.2
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
30
35
40
Escalated FOM witih LOGST
Esclated FOM
Logistic function

From: Carter, Bud
To: Norman Lee; Wilson, Stuart; Karavayev, Louanne; Baker, Bryan
Subject: RE: Application of Logistic function to template
Date: 8/24/2011 12:43:22 PM

Norman -

As for the bump ... I'm currently checking out historical heat rates (1990-2011 ytd) ... specifically the delta we've seen after overhauls ...

I hope to have something more definitive later today ...

Bud Carter
Generation System Planning
LG&E Building
502-627-2707
bud.carter@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Tuesday, August 23, 2011 1:24 PM
To: Wilson, Stuart; Karavayev, Louanne; Baker, Bryan; Carter, Bud
Cc: Eric Hughes
Subject: Application of Logistic function to template

Team,

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The only issue to be added to the above extended formula is a method for incorporating the bumps that occur at the time of major maintenance.

Please let me know what you think of the approach.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

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From: Karavayev, Louanne
To: Norman Lee
Subject: RE: Application of Logistic function to template
Date: 8/30/2011 1:44:34 PM

Norm,

Just wanted to let you know that we are making progress on filling out the spreadsheet you sent. We are hoping to send it to you by the end of the week if not sooner. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Carter, Bud
Sent: Wednesday, August 24, 2011 12:43 PM
To: Norman Lee; Wilson, Stuart; Karavayev, Louanne; Baker, Bryan
Cc: Eric Hughes
Subject: RE: Application of Logistic function to template

Norman -

As for the bump ... I'm currently checking out historical heat rates (1990-2011 ytd) ... specifically the delta we've seen after overhauls ...

I hope to have something more definitive later today ...

Bud Carter
Generation System Planning
LG&E Building
502-627-2707
bud.carter@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Tuesday, August 23, 2011 1:24 PM
To: Wilson, Stuart; Karavayev, Louanne; Baker, Bryan; Carter, Bud
Cc: Eric Hughes
Subject: Application of Logistic function to template

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Karavayev, Louanne; Wilson, Stuart; Carter, Bud
Subject: RE: Application of Logistic function to template
Date: 8/30/2011 1:53:19 PM

Louanne,

I am looking forward to seeing them. I think it would be good for Eric and I to get together with you via teleconference some time Friday to discuss where we are and how we are to proceed. Let me know and I will set up the conference call.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Tuesday, August 30, 2011 1:45 PM
To: Norman Lee
Cc: Eric Hughes; Wilson, Stuart; Carter, Bud
Subject: RE: Application of Logistic function to template

Norm,

Just wanted to let you know that we are making progress on filling out the spreadsheet you sent. We are hoping to send it to you by the end of the week if not sooner. Thanks,

Lou Anne Karavayev

LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Carter, Bud
Sent: Wednesday, August 24, 2011 12:43 PM
To: Norman Lee; Wilson, Stuart; Karavayev, Louanne; Baker, Bryan
Cc: Eric Hughes
Subject: RE: Application of Logistic function to template

Norman -

As for the bump ... I'm currently checking out historical heat rates (1990-2011 ytd) ... specifically the delta we've seen after overhauls ...

I hope to have something more definitive later today ...

Bud Carter
Generation System Planning
LG&E Building
502-627-2707
bud.carter@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Tuesday, August 23, 2011 1:24 PM
To: Wilson, Stuart; Karavayev, Louanne; Baker, Bryan; Carter, Bud
Cc: Eric Hughes
Subject: Application of Logistic function to template

Team,

I have extended the logistic function to include the following:

1. I have removed the variable w from the calculation since it was redundant with c .

2. The single escalation variable has been replaced with the annual escalation stream. This will allow for easily incorporating the formula into the template spreadsheets.

3. I have added a spreadsheet showing the use of the same formula to model the degradation of the maximum operating capacity of the unit.

The only issue to be added to the above extended formula is a method for incorporating the bumps that occur at the time of major maintenance.

Please let me know what you think of the approach.

Thanks

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From: Karavayev, Louanne
To: Norman Lee
Subject: RE: Application of Logistic function to template
Date: 9/2/2011 6:10:41 PM

Norm,

Please see attached for unit data using your template. I believe I have captured all of the costs (even though there are blanks). I plan to get with David Cosby next week to figure out in more detail how these costs should be allocated within fixed and variable O&M (to fill out these blanks). Also, Bud, Stuart, and I will get together to decide how to escalate the costs and degrade the units appropriately (keeping in mind the jagged hockey stick), using the historical data Bud has already pulled together. Hopefully what I'm sending you now will help you get started. Please let me know if you have questions. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Tuesday, August 30, 2011 1:53 PM
To: Karavayev, Louanne; Wilson, Stuart; Carter, Bud
Cc: Eric Hughes
Subject: RE: Application of Logistic function to template

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From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
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Subject: RE: Application of Logistic function to template

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: Current Status and Data Needs
Date: 9/14/2011 2:06:42 PM

Stuart and Lou Anne,

Eric and I have looked at the data you sent and have identified some areas that require additional information and/or clarification.

I have attached the workbook with an additional spreadsheet that identifies in red the information that is still missing. Basically almost all of the cost data and the historical degradation data are still missing. We understand that separating out some of the cost data is difficult, but it is extremely important to executing the analysis methodology properly.

In addition, there are some areas of clarification that need to be made.

1. Is the information you sent in Nominal or Real dollars?

2. There are two ways that units that would normally retire during the study period can be handled.

a. Allow the unit to retire at its normal date and be replaced with generic units,

b. Extend units to some arbitrary period at or past 2040.

The assumption made for a given unit will determine the method used to incorporate the hock stick function. In addition, if extension is the method chosen then the cost of life extension will be required.

It is my understanding that Bud Carter is out with heart problems. I wish him well. However, at the present time, we are not in a position to build the model that is required to complete the analysis. Without the above information we will not be able to meet the end of the month deadline. Let's have a conference call to go over each of these items and see how we can get the project back as close as possible to on track. Please let me know when would be a good time and I will arrange a conference call-in number.

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From: Wilson, Stuart
To: 'Norman Lee'; Karavayev, Louanne
Subject: RE: Current Status and Data Needs
Date: 9/14/2011 10:35:09 PM

Norm,

We just now wrapped up a deliverable that we've been working on day and night (literally) for the last two+ weeks. We'll give you a call tomorrow. We should be able to turn our full attention to this project.

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Wednesday, September 14, 2011 2:07 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: Current Status and Data Needs

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: Current Status and Data Needs
Date: 9/15/2011 9:42:40 AM

Stuart,

I am available all day today. Eric is available from 1:00 PM to around 2:45 PM and after 4pm. Let me know what you would like to do and I will set up a conference call.

Thanks

Norm

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From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, September 14, 2011 10:35 PM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

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From: Wilson, Stuart
To: 'Norman Lee'; Karavayev, Louanne
Subject: RE: Current Status and Data Needs
Date: 9/15/2011 10:19:58 AM

Let's talk at 1:30. If it's OK, you can call us at my desk (502/627-4993).

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 9:43 AM
To: Wilson, Stuart; Karavayev, Louanne
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Sent: Wednesday, September 14, 2011 2:07 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: Current Status and Data Needs

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: Current Status and Data Needs
Date: 9/15/2011 10:22:57 AM

That will be fine.

Thanks

Norm

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From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, September 15, 2011 10:20 AM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

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From: Karavayev, Louanne
To: 'Norman Lee'
Subject: RE: Current Status and Data Needs
Date: 9/16/2011 4:03:17 PM

Norm,

I just left you a voicemail, sorry to have missed you. Please see below for an updated Unit Data spreadsheet which includes planned outage information, as we discussed yesterday. I'd like to talk through a couple of things with you, so if you could give me a call back this afternoon or Monday morning, that would be great. Thanks,

Lou Anne Karavayev
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p (502) 627-2563
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From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
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It is my understanding that Bud Carter is out with heart problems. I wish him well. However, at the present time, we are not in a position to build the model that is required to complete the analysis. Without the above information we will not be able to meet the end of the month deadline. Let's have a conference call to go over each of these items and see how we can get the project back as close as possible to on track. Please let me know when would be a good time and I will arrange a conference call-in number.

Thanks

Norm

Thanks

Norm

Norman R. Lee Jr.

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= Dates and location for European Mindshare coming soon. =

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Existing Data **Brown 2**

	BR1	BR2	BR3	BR5	BR6	BR7	BR8	BR9	BR10	BR11	CR11	GH1	GH2	HAF	MC1	MC2	MC3	PR11	PR12	PR13	TC5	TC6	TC7	TC8	TC9	TC10	ZN1
Operations																											
EUOR (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heat Rate (Btu/kWh)																											
January	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
February	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
March	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
April	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
June	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
July	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
August	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
September	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
October	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
November	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
December	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Max Capacity (MW)																											
January	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
February	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
March	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
April	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
June	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
July	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
August	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
September	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
October	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
November	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
December	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Planned Outages (wks/yr)	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	0
Emissions (lb/mmBtu)																											
CO2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NOX	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SO2 Removal Rate (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cost Data																											
Variable O&M																											
Consumables	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Required maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																											
Operations	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Maintenance	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Outage	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
New Controls	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Admin cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allocated company overhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																											
Annual on-going	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	1	1	1	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																											
O&M Escalation Rate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Capital Escalation Rate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Existing Data **Brown 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate (Btu/kWh)																															
January	11,006	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
February	11,006	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
March	11,056	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
April	11,056	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
May	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
June	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
July	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
August	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
September	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
October	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
November	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
December	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
Max Capacity (MW)																															
January	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
February	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
March	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
April	106	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
May	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
June	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
July	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
August	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
September	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
October	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
November	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
December	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
Planned Outages (wks/yr)	2	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518
HG	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.3622	0.6511	0.6601	0.8675	10.5398	10.7506	10.9656	11.1849	11.4086	11.6368	11.8695	12.1069	12.3491	12.5960	12.8480	13.1049	13.3670	13.6344	13.9070	14.1852	14.4689	14.7583	15.0534	15.3545	15.6616	15.9748	16.2943	16.6202	16.9526	17.2917	17.6375
Ash handling																															
Required maintenance																															
Fixed O&M ($)																															
Operations	1,413,110	1,517,210	1,557,554	1,588,705	1,620,479	1,652,889	1,685,947	1,719,665	1,754,059	1,789,140	1,824,923	1,861,421	1,898,650	1,936,623	1,975,355	2,014,862	2,055,159	2,096,263	2,138,188	2,180,952	2,224,571	2,269,062	2,314,443	2,360,732	2,407,947	2,456,106	2,505,228	2,555,332	2,606,439	2,658,568	2,711,739
Maintenance	1,706,970	2,259,067	1,938,626	1,977,398	2,016,946	2,057,285	2,098,431	2,140,399	2,183,207	2,226,871	2,271,409	2,316,837	2,363,174	2,410,437	2,458,646	2,507,819	2,557,975	2,609,135	2,661,318	2,714,544	2,768,835	2,824,211	2,880,696	2,938,310	2,997,076	3,057,017	3,118,158	3,180,521	3,244,131	3,309,014	3,375,194
Outage	696,367	1,035,000	473,000	482,460	492,109	501,951	511,990	522,230	532,675	543,328	554,195	565,279	576,584	588,116	599,878	611,876	624,113	636,596	649,328	662,314	675,560	689,072	702,853	716,910	731,248	745,873	760,791	776,007	791,527	807,357	823,504
New Controls	0	0	0	677,422	748,193	763,156	778,420	793,988	809,868	826,065	842,586	859,438	876,627	894,159	912,043	930,283	948,889	967,867	987,224	1,006,969	1,027,108	1,047,650	1,068,603	1,089,975	1,111,775	1,134,010	1,156,690	1,179,824	1,203,421	1,227,489	1,252,039
Admin cost																															
Property taxes																															
Insurance																															
Allocated company overhead																															
Cap Ex																															
Annual on-going	738	759	780	802	825	848	871	896	921	947	973	1,000	1,028	1,057	1,087	1,117	1,148	1,181	1,214	1,248	1,283	1,319	1,355	1,393	1,432	1,473	1,514	1,556	1,600	1,645	1,691
Periodic																															
One time	2,536	30,841	46,777	29,528	0	0																									
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Existing Data Brown 2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate (Btu/kWh)																
January	10,299	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
February	10,299	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
March	10,349	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
April	10,349	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
May	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
June	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
July	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
August	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
September	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
October	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
November	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
December	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
Max Capacity (MW)																
January	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166
February	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166
March	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166
April	166	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164
May	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
June	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
July	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
August	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
September	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
October	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166
November	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166
December	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166
Planned Outages (wks/yr)	5	1	3	4	1	MO	1	3	1	3	1	3	MO	1	3	1
Emissions (lb/mmBtu)																
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346
HG	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																
Variable O&M																
Consumables	0.3343	0.6116	0.6200	0.8260	8.5749	8.7464	8.9213	9.0998	9.2817	9.4674	9.6567	9.8499	10.0469	10.2478	10.4528	10.6618
Ash handling																
Required maintenance																
Fixed O&M ($)																
Operations	2,476,367	2,938,626	2,852,576	2,909,628	2,967,820	3,027,177	3,087,720	3,149,475	3,212,464	3,276,713	3,342,248	3,409,093	3,477,275	3,546,820	3,617,756	3,690,112
Maintenance	3,450,714	3,621,719	3,593,414	3,665,282	3,738,587	3,813,359	3,889,626	3,967,419	4,046,767	4,127,703	4,210,257	4,294,462	4,380,351	4,467,958	4,557,317	4,648,464
Outage	705,972	600,000	807,000	823,140	839,603	856,395	873,523	890,993	908,813	926,989	945,529	964,440	983,728	1,003,403	1,023,471	1,043,941
New Controls	0	0	0	848,808	865,784	883,099	900,761	918,777	937,152	955,895	975,013	994,513	1,014,404	1,034,692	1,055,385	1,076,493
Admin cost																
Property taxes																
Insurance																
Allocated company overhead																
Cap Ex																
Annual on-going	1,221	1,255	1,290	1,326	1,363	1,402	1,441	1,481	1,523	1,565	1,609	1,654	1,700	1,748	1,797	1,847
Periodic																
One time	2,688	33,383	50,350	31,740	0	0										
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate January	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
February	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
March	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
April	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
May	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
June	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
July	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
August	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
September	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
October	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
November	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
December	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
Max Capacity January	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
February	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
March	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
April	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
May	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
June	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
July	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
August	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
September	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
October	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
November	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
December	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
Planned Outages (wks/yr)	3	1	3	MO	1	3	1	3	1	3	MO	1	3	1	3
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346
HG	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Consumables	10.8750	11.0925	11.3144	11.5407	11.7715	12.0069	12.2471	12.4920	12.7419	12.9967	13.2566	13.5218	13.7922	14.0680	14.3494
Operations	3,763,914	3,839,192	3,915,976	3,994,295	4,074,181	4,155,665	4,238,778	4,323,554	4,410,025	4,498,225	4,588,190	4,679,954	4,773,553	4,869,024	4,966,404
Maintenance	4,741,433	4,836,261	4,932,987	5,031,646	5,132,279	5,234,925	5,339,623	5,446,416	5,555,344	5,666,451	5,779,780	5,895,376	6,013,283	6,133,549	6,256,220
Outage	1,064,819	1,086,116	1,107,838	1,129,995	1,152,595	1,175,647	1,199,160	1,223,143	1,247,606	1,272,558	1,298,009	1,323,969	1,350,448	1,377,457	1,405,007
New Controls	1,098,023	1,119,983	1,142,383	1,165,231	1,188,535	1,212,306	1,236,552	1,261,283	1,286,509	1,312,239	1,338,484	1,365,254	1,392,559	1,420,410	1,448,818
Annual on-going	1,899	1,952	2,007	2,063	2,121	2,180	2,241	2,304	2,368	2,435	2,503	2,573	2,645	2,719	2,795

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

Operations labels:
- FOR
- HR
- Capacity
- Maintenance (Planned)
- Emissions
- CO2
- SO2
- NOX
- HG

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data Brown 3

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Heat Rate (Btu/kWh)																															
January	11,002	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
February	11,002	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
March	11,052	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
April	11,052	11,052	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
May	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
June	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
July	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
August	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
September	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
October	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
November	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
December	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
Max Capacity (MW)																															
January	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
February	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
March	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
April	412	412	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
May	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
June	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
July	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
August	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
September	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
October	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
November	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
December	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
Planned Outages (wks/yr)	3 MO		1	3	4	3	1	3 MO		3	1	3	1	3	1 MO		1	3	1	3	1	3 MO		3	1	3	1	3	1 MO		1
Emissions (lb/mmBtu)																															
CO_2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.327	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030
HG	2.00E-06	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO_2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.3365	0.635	2.3431	2.5612	2.6124	5.6677	5.7811	5.8967	6.0146	6.1349	6.2576	6.3828	6.5104	6.6406	6.7734	6.9089	7.0471	7.1880	7.3318	7.4784	7.6280	7.7805	7.9361	8.0949	8.2568	8.4219	8.5903	8.7621	8.9374	9.1161	9.2985
Ash handling																															
Required maintenance																															
Fixed O&M ($)																															
Operations	6,025,163	5,616,010	5,961,106	6,080,328	6,201,934	6,325,973	6,452,493	6,581,542	6,713,173	6,847,437	6,984,386	7,124,073	7,266,555	7,411,886	7,560,123	7,711,326	7,865,552	8,022,864	8,183,321	8,346,987	8,513,927	8,684,205	8,857,890	9,035,047	9,215,748	9,400,063	9,588,065	9,779,826	9,975,422	10,174,931	10,378,429
Maintenance	7,281,919	8,154,490	7,519,563	7,669,954	7,823,353	7,979,820	8,139,417	8,302,205	8,468,249	8,637,614	8,810,366	8,986,574	9,166,305	9,349,631	9,536,624	9,727,356	9,921,904	10,120,342	10,322,748	10,529,203	10,739,787	10,954,583	11,173,675	11,397,148	11,625,091	11,857,593	12,094,745	12,336,640	12,583,373	12,835,040	13,091,741
Outage	2,577,924	7,105,999	1,423,000	1,451,460	1,480,489	1,510,099	1,540,301	1,571,107	1,602,529	1,634,580	1,667,271	1,700,617	1,734,629	1,769,322	1,804,708	1,840,802	1,877,618	1,915,171	1,953,474	1,992,544	2,032,394	2,073,042	2,114,503	2,156,793	2,199,929	2,243,928	2,288,806	2,334,582	2,381,274	2,428,899	2,477,477
New Controls	0	0	0	0	1,067,560	1,088,911	1,110,689	1,132,903	1,155,561	1,178,672	1,202,245	1,226,290	1,250,816	1,275,832	1,301,349	1,327,376	1,353,924	1,381,002	1,408,622	1,436,795	1,465,530	1,494,841	1,524,738	1,555,233	1,586,337	1,618,064	1,650,425	1,683,434	1,717,103	1,751,445	1,786,473
Admin cost																															
Property taxes																															
Insurance																															
Allocated company overhead																															
Cap Ex																															
Annual on-going	3,041	3,126	3,214	3,304	3,396	3,491	3,589	3,689	3,793	3,899	4,008	4,120	4,236	4,354	4,476	4,602	4,730	4,863	4,999	5,139	5,283	5,431	5,583	5,739	5,900	6,065	6,235	6,409	6,589	6,773	6,963
Periodic																															
One time	0	2,176	28,292	50,608	36,720	0																									
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO_2																														
SO_2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — **Brown 5**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
Heat Rate (Btu/kWh)																															
January	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
February	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
March	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
April	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
May	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
June	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
July	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
August	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
September	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
October	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
November	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
December	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
Max Capacity (MW)																															
January	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
February	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
March	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
April	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
May	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
June	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
July	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
August	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
September	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
October	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
November	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
December	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
Planned Outages (wks/yr)	0	2	0	2	0	0	0	0	0	8	0	2	0	2	0	0	0	0	0	8	0	2	0	2	0	0	0	0	0	8	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data

Variable O&M
- Consumables
- Ash handling
- Required maintenance

Fixed O&M ($)
- Operations
- Maintenance
- Outage
- New Controls
- Admin cost
  - Property taxes
  - Insurance
- Allocated company overhead

Cap Ex
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
- Property taxes

Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Brown 6**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
Heat Rate (Btu/kWh)																															
January	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
February	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
March	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
April	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
May	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
June	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
July	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
August	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
September	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
October	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
November	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
December	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
Max Capacity (MW)																															
January	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
February	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
March	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
April	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
May	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
June	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
July	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
August	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
September	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
October	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
November	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
December	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
Planned Outages (wks/yr)	1	1	1	2	1	1	8	1	1	2	1	1	1	2	1	1	8	1	1	2	1	1	1	2	1	1	8	1	1	2	1
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
Variable O&M
Consumables
Ash handling
Required maintenance
Fixed O&M ($)
Operations
Maintenance
Outage
New Controls
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap Ex
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Brown 7**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
Heat Rate (Btu/kWh)																															
January	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
February	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
March	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
April	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
May	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
June	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
July	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
August	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
September	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
October	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
November	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
December	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
Max Capacity (MW)																															
January	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
February	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
March	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
April	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
May	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
June	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
July	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
August	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
September	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
October	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
November	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
December	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
Planned Outages (wks/yr)	2	1	1	2	1	2	1	8	1	1	2	1	1	2	1	2	1	8	1	1	2	1	1	2	1	2	1	8	1	1	2
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data — **Brown 8**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
February	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
March	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
April	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
May	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
June	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
July	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
August	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
September	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
October	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
November	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
December	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
Max Capacity (MW)																															
January	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
February	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
March	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
April	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
May	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
October	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
November	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
December	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Planned Outages (wks/yr)	0	1	2	0	2	0	0	0	2	0	8	0	1	2	0	2	0	0	0	2	0	8	0	1	2	0	2	0	0	0	2
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data

- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

- FOR
- HR
- Capacity
- Maintenance (Planned)
- Emmissions
- CO2
- SO2
- NOX
- HG

Cost Data

- Consumables
- Ash handling
- Required maintenance

FOM

- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX

- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data **Brown 9**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)																															
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	2	1	8	0	2	0	0	0	2	0	2	1	8	0	2	0	0	0	2	0	2	1	8	0	2	0	0	0	2	0	2
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

- FOR
- HR
- Capacity
- Maintenance (Planned)
- Emmissions
- CO2
- SO2
- NOX
- HG

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data **Brown 10**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)																															
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	0	2	0	8	0	2	0	0	2	0	0	2	0	8	0	2	0	0	2	0	0	2	0	8	0	2	0	0	2	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
Variable O&M
Consumables
Ash handling
Required maintenance
Fixed O&M ($)
Operations
Maintenance
Outage
New Controls
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap Ex
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

O&M Escalation Rate 2.0%
Capital Escalation Rate 2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Brown 11**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
February	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
March	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
April	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
May	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
June	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
July	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
August	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
September	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
October	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
November	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
December	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
Max Capacity (MW)																															
January	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
February	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
March	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
April	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
May	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
October	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
November	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
December	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Planned Outages (wks/yr)	0	2	0	0	0	8	0	0	0	0	0	2	0	0	0	8	0	0	0	0	0	2	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data

Variable O&M
- Consumables
- Ash handling
- Required maintenance

Fixed O&M ($)
- Operations
- Maintenance
- Outage
- New Controls
- Admin cost
  - Property taxes
  - Insurance
- Allocated company overhead

Cap Ex
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
- Property taxes

Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Cane Run 11**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
February	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
March	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
April	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
May	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
June	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
July	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
August	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
September	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
October	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
November	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
December	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
Max Capacity (MW)																															
January	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
February	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
March	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
April	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
May	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
June	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
July	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
August	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
September	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
October	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
November	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
December	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Planned Outages (wks/yr)																															
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
Variable O&M
Consumables
Ash handling
Required maintenance
Fixed O&M ($)
Operations
Maintenance
Outage
New Controls
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap Ex
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Ghent 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,317	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
February	10,317	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
March	10,583	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
April	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
May	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
June	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
July	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
August	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
September	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
October	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
November	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
December	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
Max Capacity (MW)																															
January	481	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
February	481	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
March	480	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
April	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
May	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
June	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
July	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
August	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
September	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
October	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
November	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
December	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
Planned Outages (wks/yr)	2	3	1	3	MO	4	1	4	1	3	1	MO	1	3	1	3	1	3	MO	1	3	1	3	1	3	MO	1	3	1	3	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046
HG	2.00E-06	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	1.6200	2.0564	2.4335	2.9382	2.9970	6.0701	6.1915	6.3153	6.4416	6.5705	6.7019	6.8359	6.9726	7.1121	7.2543	7.3994	7.5474	7.6984	7.8523	8.0094	8.1696	8.3329	8.4996	8.6696	8.8430	9.0198	9.2002	9.3843	9.5719	9.7634	9.9586
Ash handling																															
Required maintenance																															
Fixed O&M ($)																															
Operations	4,790,013	4,862,452	4,955,366	5,054,473	5,155,562	5,258,674	5,363,847	5,471,124	5,580,547	5,692,158	5,806,001	5,922,121	6,040,563	6,161,374	6,284,602	6,410,294	6,538,500	6,669,270	6,802,655	6,938,708	7,077,482	7,219,032	7,363,413	7,510,681	7,660,895	7,814,112	7,970,395	8,129,803	8,292,399	8,458,247	8,627,412
Maintenance	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Outage	2,470,000	3,440,000	2,205,000	2,249,100	2,294,082	2,339,964	2,386,763	2,434,498	2,483,188	2,532,852	2,583,509	2,635,179	2,687,883	2,741,640	2,796,473	2,852,403	2,909,451	2,967,640	3,026,992	3,087,532	3,149,283	3,212,269	3,276,514	3,342,044	3,408,885	3,477,063	3,546,604	3,617,536	3,689,887	3,763,685	3,838,958
New Controls	0	0	0	1,297,981	1,318,944	1,345,322	1,372,229	1,399,673	1,427,667	1,456,220	1,485,345	1,515,052	1,545,353	1,576,260	1,607,785	1,639,941	1,672,739	1,706,194	1,740,318	1,775,124	1,810,627	1,846,839	1,883,776	1,921,452	1,959,881	1,999,078	2,039,060	2,079,841	2,121,438	2,163,867	2,207,144
Admin cost																															
Property taxes																															
Insurance																															
Allocated company overhead																															
Cap Ex																															
Annual on-going	5,448	5,601	5,758	5,919	6,085	6,255	6,430	6,610	6,795	6,986	7,181	7,382	7,589	7,802	8,020	8,245	8,475	8,713	8,957	9,207	9,465	9,730	10,003	10,283	10,571	10,867	11,171	11,484	11,805	12,136	12,476
Periodic																															
One time	1,990	50,249	66,925	44,858	0	0																									
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Ghent 2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,351	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
February	10,351	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
March	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
April	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
May	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
June	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
July	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
August	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
September	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
October	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
November	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
December	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
Max Capacity (MW)																															
January	477	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
February	477	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
March	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
April	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
May	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
June	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
July	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
August	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
September	486	486	486	469	486	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
October	486	486	486	469	486	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
November	486	486	486	503	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
December	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
Planned Outages (wks/yr)	2 MO		1	1 MO		4	2	1 MO		1	3	1	3	1	3 MO		1	3	1	3	1	3 MO		1	3	1	3	1	3 MO		1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268
HG	4.00E-06	4.00E-06	4.00E-06	4.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Cost Data																															
Variable O&M																															
Consumables	0.4668	0.8161	1.1015	1.4277	1.4563	3.8581	3.9353	4.0140	4.0942	4.1761	4.2597	4.3448	4.4317	4.5204	4.6108	4.7030	4.7971	4.8930	4.9909	5.0907	5.1925	5.2963	5.4023	5.5103	5.6205	5.7329	5.8476	5.9645	6.0838	6.2055	6.3296
Ash handling																															
Required maintenance																															
Fixed O&M ($)																															
Operations	3,908,096	3,521,527	4,244,540	4,329,430	4,416,019	4,504,339	4,594,426	4,686,315	4,780,041	4,875,642	4,973,155	5,072,618	5,174,070	5,277,552	5,383,103	5,490,765	5,600,580	5,712,592	5,826,843	5,943,380	6,062,248	6,183,493	6,307,163	6,433,306	6,561,972	6,693,212	6,827,076	6,963,617	7,102,890	7,244,947	7,389,846
Maintenance	7,071,906	7,026,776	7,619,923	7,772,321	7,927,768	8,086,323	8,248,049	8,413,010	8,581,271	8,752,896	8,927,954	9,106,513	9,288,643	9,474,416	9,663,904	9,857,183	10,054,326	10,255,413	10,460,521	10,669,731	10,883,126	11,100,789	11,322,804	11,549,260	11,780,246	12,015,850	12,256,167	12,501,291	12,751,317	13,006,343	13,266,470
Outage	1,245,000	7,950,000	1,565,000	1,596,300	1,628,226	1,660,791	1,694,006	1,727,886	1,762,444	1,797,693	1,833,647	1,870,320	1,907,726	1,945,881	1,984,798	2,024,494	2,064,984	2,106,284	2,148,410	2,191,378	2,235,205	2,279,909	2,325,508	2,372,018	2,419,458	2,467,847	2,517,204	2,567,548	2,618,899	2,671,277	2,724,703
New Controls	0	8,064	98,700	878,274	1,688,992	1,722,772	1,757,227	1,792,372	1,828,219	1,864,783	1,902,079	1,940,121	1,978,923	2,018,501	2,058,872	2,100,049	2,142,050	2,184,891	2,228,589	2,273,161	2,318,624	2,364,996	2,412,296	2,460,542	2,509,753	2,559,948	2,611,147	2,663,370	2,716,637	2,770,970	2,826,389
Admin cost																															
Property taxes																															
Insurance																															
Allocated company overhead																															
Cap Ex																															
Annual on-going	5,552	5,707	5,867	6,031	6,200	6,374	6,552	6,736	6,924	7,118	7,317	7,522	7,733	7,949	8,172	8,401	8,636	8,878	9,126	9,382	9,645	9,915	10,192	10,478	10,771	11,073	11,383	11,701	12,029	12,366	12,712
Periodic																															
One time	122	37,355	48,368	72,404	6,693	0																									
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data **Haefling 1-3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
February	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
March	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
April	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
May	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
June	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
July	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
August	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
September	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
October	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
November	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
December	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Max Capacity (MW)																															
January	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
February	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
March	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
April	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
May	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
July	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
August	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
September	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
October	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
November	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
December	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Planned Outages (wks/yr)																															
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
Variable O&M
Consumables
Ash handling
Required maintenance
Fixed O&M ($)
Operations
Maintenance
Outage
New Controls
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap Ex
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040
FOR
HR
Capacity
Maintenance (Planned)
Emissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Mill Creek 1

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,004	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
February	10,004	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
March	10,182	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
April	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
May	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
June	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
July	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
August	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
September	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
October	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
November	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
December	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
Max Capacity (MW)																															
January	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
February	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
March	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
April	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
May	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
June	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
July	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
August	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
September	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
October	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
November	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
December	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Planned Outages (wks/yr)	2	2	MO	1	MO	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
HG	4.80E-06	4.80E-06	4.80E-06	4.80E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.5780	0.6007	0.6274	0.6570	0.6701	4.9693	5.0687	5.1701	5.2735	5.3789	5.4865	5.5962	5.7082	5.8223	5.9388	6.0575	6.1787	6.3023	6.4283	6.5569	6.6880	6.8218	6.9582	7.0974	7.2393	7.3841	7.5318	7.6824	7.8361	7.9928	8.1527
Ash handling																															
Required maintenance																															
Fixed O&M ($)																															
Operations	3,928,421	3,539,874	4,252,771	4,337,826	4,424,583	4,513,074	4,603,336	4,695,403	4,789,311	4,885,097	4,982,799	5,082,455	5,184,104	5,287,786	5,393,542	5,501,413	5,611,441	5,723,670	5,838,143	5,954,906	6,074,004	6,195,484	6,319,394	6,445,782	6,574,697	6,706,191	6,840,315	6,977,121	7,116,664	7,258,997	7,404,177
Maintenance	7,293,903	8,543,006	7,666,475	7,819,805	7,976,201	8,135,725	8,298,439	8,464,408	8,633,696	8,806,370	8,982,498	9,162,148	9,345,391	9,532,298	9,722,944	9,917,403	10,115,751	10,318,066	10,524,428	10,734,916	10,949,615	11,168,607	11,391,979	11,619,819	11,852,215	12,089,259	12,331,045	12,577,665	12,829,219	13,085,803	13,347,519
Outage	670,000	5,249,999	750,001	765,001	780,301	795,907	811,825	828,062	844,623	861,515	878,746	896,321	914,247	932,532	951,183	970,206	989,610	1,009,403	1,029,591	1,050,182	1,071,186	1,092,610	1,114,462	1,136,751	1,159,486	1,182,676	1,206,330	1,230,456	1,255,065	1,280,167	1,305,770
New Controls	0	0	0	0	1,229,680	1,294,154	1,343,816	1,394,471	1,446,140	1,498,842	1,552,597	1,583,649	1,615,322	1,647,629	1,680,581	1,714,193	1,748,477	1,783,446	1,819,115	1,855,498	1,892,608	1,930,460	1,969,069	2,008,450	2,048,619	2,089,592	2,131,384	2,174,011	2,217,491	2,261,841	2,307,078
Admin cost																															
Property taxes																															
Insurance																															
Allocated company overhead																															
Cap Ex																															
Annual on-going	3,293	3,386	3,480	3,578	3,678	3,781	3,887	3,996	4,108	4,223	4,341	4,463	4,587	4,716	4,848	4,984	5,123	5,267	5,414	5,566	5,722	5,882	6,046	6,216	6,390	6,569	6,753	6,942	7,136	7,336	7,541
Periodic																															
One time	0	38,759	95,176	104,054	96,375	0																									
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Mill Creek 2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,145	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
February	10,145	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
March	10,614	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
April	10,614	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
May	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
June	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
July	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
August	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
September	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
October	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
November	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
December	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
Max Capacity (MW)																															
January	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
February	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
March	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
April	301	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
May	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
June	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
July	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
August	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
September	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
October	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
November	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
December	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
Planned Outages (wks/yr)	1 MO		1	4 MO		4	1	4	1 MO		1	4	1	4	1	4	1 MO		1	4	1	4	1	4	1 MO		1	4	1	4	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
HG	4.80E-06	4.80E-06	4.80E-06	4.80E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.5916	0.6150	0.6423	0.6726	0.6861	5.1561	5.2592	5.3644	5.4717	5.5811	5.6928	5.8066	5.9227	6.0412	6.1620	6.2853	6.4110	6.5392	6.6700	6.8034	6.9394	7.0782	7.2198	7.3642	7.5115	7.6617	7.8149	7.9712	8.1307	8.2933	8.4591
Ash handling																															
Required maintenance																															
Fixed O&M ($)																															
Operations	3,289,634	3,957,285	3,930,292	4,008,898	4,089,076	4,170,857	4,254,274	4,339,360	4,426,147	4,514,670	4,604,963	4,697,062	4,791,004	4,886,824	4,984,560	5,084,251	5,185,937	5,289,655	5,395,448	5,503,357	5,613,424	5,725,693	5,840,207	5,957,011	6,076,151	6,197,674	6,321,628	6,448,060	6,577,021	6,708,562	6,842,733
Maintenance	7,889,017	7,314,174	8,470,409	8,639,817	8,812,613	8,988,866	9,168,643	9,352,016	9,539,056	9,729,837	9,924,434	10,122,923	10,325,381	10,531,889	10,742,526	10,957,377	11,176,525	11,400,055	11,628,056	11,860,617	12,097,830	12,339,786	12,586,582	12,838,314	13,095,080	13,356,981	13,624,121	13,896,603	14,174,536	14,458,026	14,747,187
Outage	5,000,000	670,000	2,800,000	2,856,000	2,913,120	2,971,382	3,030,810	3,091,426	3,153,255	3,216,320	3,280,646	3,346,259	3,413,184	3,481,448	3,551,077	3,622,099	3,694,541	3,768,431	3,843,800	3,920,676	3,999,089	4,079,071	4,160,653	4,243,866	4,328,743	4,415,318	4,503,624	4,593,697	4,685,571	4,779,282	4,874,868
New Controls	0	0	0	0	1,630,630	1,691,400	1,740,504	1,790,590	1,841,678	1,893,787	1,946,939	1,985,878	2,025,596	2,066,108	2,107,430	2,149,578	2,192,570	2,236,421	2,281,150	2,326,773	2,373,308	2,420,774	2,469,190	2,518,574	2,568,945	2,620,324	2,672,731	2,726,185	2,780,709	2,836,323	2,893,049
Admin cost																															
Property taxes																															
Insurance																															
Allocated company overhead																															
Cap Ex																															
Annual on-going	3,272	3,363	3,458	3,554	3,654	3,756	3,861	3,969	4,081	4,195	4,312	4,433	4,557	4,685	4,816	4,951	5,089	5,232	5,378	5,529	5,684	5,843	6,007	6,175	6,348	6,525	6,708	6,896	7,089	7,288	7,492
Periodic																															
One time	0	38,165	93,797	103,627	95,752	0																									
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data **Mill Creek 3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																
January	10,917	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726
February	10,917	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726
March	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
April	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
May	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
June	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777
July	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777
August	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777
September	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
October	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
November	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
December	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
Max Capacity (MW)																
January	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
February	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
March	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
April	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
May	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
June	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
July	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
August	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
September	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
October	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
November	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388
December	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388
Planned Outages (wks/yr)	MO	2	MO	1	MO	1	4	1	MO	1	4	1	4	1	4	1
Emissions (lb/mmBtu)																
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
HG	1.70E-06	1.70E-06	1.70E-06	1.70E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	90	90	90	90	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																
Variable O&M																
Consumables	2.0708	1.0675	1.1263	2.2909	2.3367	5.4337	5.5424	5.6532	5.7663	5.8816	5.9992	6.1192	6.2416	6.3664	6.4938	6.6236
Ash handling																
Required maintenance																
Fixed O&M ($)																
Operations	4,346,007	4,969,231	4,689,494	4,783,284	4,878,950	4,976,529	5,076,059	5,177,580	5,281,132	5,386,755	5,494,490	5,604,379	5,716,467	5,830,796	5,947,412	6,066,361
Maintenance	8,969,930	8,598,927	9,731,773	9,926,409	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Outage	4,996,998	670,001	2,799,999	2,855,999	2,913,119	2,971,381	3,030,809	3,091,425	3,153,254	3,216,319	3,280,645	3,346,258	3,413,183	3,481,447	3,551,076	3,622,097
New Controls	0	0	24,068	36,824	684,314	1,357,688	1,384,842	1,412,539	1,440,790	1,469,605	1,498,997	1,528,977	1,559,557	1,590,748	1,622,563	1,655,014
Admin cost																
Property taxes																
Insurance																
Allocated company overhead																
Cap Ex																
Annual on-going	4,250	4,369	4,491	4,617	4,746	4,879	5,016	5,156	5,301	5,449	5,602	5,759	5,920	6,086	6,256	6,431
Periodic																
One time	0	11,508	77,289	79,270	48,858	7,546										
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)															
January	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
February	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
March	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
April	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
May	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
June	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
July	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
August	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
September	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
October	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
November	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
December	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
Max Capacity (MW)															
January	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
February	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
March	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
April	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
May	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
June	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
July	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
August	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
September	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
October	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
November	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
December	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
Planned Outages (wks/yr)	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4
Emissions (lb/mmBtu)															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
HG	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data															
Variable O&M															
Consumables	6.7561	6.8912	7.0291	7.1697	7.3130	7.4593	7.6085	7.7607	7.9159	8.0742	8.2357	8.4004	8.5684	8.7398	8.9146
Ash handling															
Required maintenance															
Fixed O&M ($)															
Operations	6,187,688	6,311,441	6,437,670	6,566,424	6,697,752	6,831,707	6,968,341	7,107,708	7,249,862	7,394,860	7,542,757	7,693,612	7,847,484	8,004,434	8,164,523
Maintenance	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Outage	3,694,539	3,768,430	3,843,799	3,920,675	3,999,088	4,079,070	4,160,651	4,243,864	4,328,742	4,415,316	4,503,623	4,593,695	4,685,569	4,779,280	4,874,866
New Controls	1,688,115	1,721,877	1,756,314	1,791,441	1,827,270	1,863,815	1,901,091	1,939,113	1,977,895	2,017,453	2,057,802	2,098,958	2,140,937	2,183,756	2,227,431
Admin cost															
Property taxes															
Insurance															
Allocated company overhead															
Cap Ex															
Annual on-going	6,611	6,796	6,987	7,182	7,383	7,590	7,803	8,021	8,246	8,477	8,714	8,958	9,209	9,466	9,732
Periodic															
One time															
(i.e. bag house, etc.)															

Adjusted Data

Operations 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Paddy's Run 11

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
February	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
March	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
April	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
May	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
June	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
July	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
August	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
September	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
October	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
November	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
December	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
Max Capacity (MW)																															
January	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
February	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
March	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
April	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
May	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
July	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
August	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
September	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
October	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
November	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
December	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Planned Outages (wks/yr)																															
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
Variable O&M
Consumables
Ash handling
Required maintenance
Fixed O&M ($)
Operations
Maintenance
Outage
New Controls
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap Ex
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Paddy's Run 12**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
February	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
March	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
April	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
May	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
June	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
July	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
August	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
September	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
October	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
November	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
December	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
Max Capacity (MW)																															
January	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
February	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
March	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
April	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
May	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
June	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
July	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
August	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
September	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
October	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
November	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
December	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Planned Outages (wks/yr)																															
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

- FOR
- HR
- Capacity
- Maintenance (Planned)
- Emissions
- CO2
- SO2
- NOX
- HG

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data **Paddy's Run 13**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69
Heat Rate (Btu/kWh)																															
January	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
February	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
March	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
April	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
May	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
June	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
July	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
August	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
September	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
October	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
November	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
December	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
Max Capacity (MW)																															
January	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
February	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
March	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
April	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
May	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
June	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
July	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
August	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
September	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
October	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
November	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
December	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
Planned Outages (wks/yr)	15	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data

Variable O&M
- Consumables
- Ash handling
- Required maintenance

Fixed O&M ($)
- Operations
- Maintenance
- Outage
- New Controls
- Admin cost
  - Property taxes
  - Insurance
- Allocated company overhead

Cap Ex
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data — **Trimble County 5**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	9	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data

Variable O&M
- Consumables
- Ash handling
- Required maintenance

Fixed O&M ($)
- Operations
- Maintenance
- Outage
- New Controls
- Admin cost
  - Property taxes
  - Insurance
- Allocated company overhead

Cap Ex
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

- FOR
- HR
- Capacity
- Maintenance (Planned)
- Emissions
- CO2
- SO2
- NOX
- HG

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data **Trimble County 6**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

- FOR
- HR
- Capacity
- Maintenance (Planned)
- Emissions
- CO2
- SO2
- NOX
- HG

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data **Trimble County 7**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data — **Trimble County 8**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data **Trimble County 9**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
- Variable O&M
  - Consumables
  - Ash handling
  - Required maintenance
- Fixed O&M ($)
  - Operations
  - Maintenance
  - Outage
  - New Controls
  - Admin cost
    - Property taxes
    - Insurance
  - Allocated company overhead
- Cap Ex
  - Annual on-going
  - Periodic
  - One time
  - (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data **Trimble County 10**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data
Variable O&M
Consumables
Ash handling
Required maintenance
Fixed O&M ($)
Operations
Maintenance
Outage
New Controls
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap Ex
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Zorn 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
February	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
March	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
April	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
May	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
June	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
July	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
August	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
September	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
October	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
November	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
December	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
Max Capacity (MW)																															
January	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
February	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
March	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
April	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
May	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
June	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
July	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
August	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
September	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
October	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
November	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
December	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Planned Outages (wks/yr)																															
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Cost Data

Variable O&M
- Consumables
- Ash handling
- Required maintenance

Fixed O&M ($)
- Operations
- Maintenance
- Outage
- New Controls
- Admin cost
  - Property taxes
  - Insurance
- Allocated company overhead

Cap Ex
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

- Consumables
- Ash handling
- Required maintenance

FOM

- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX

- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

From: Karavayev, Louanne
To: 'Norman Lee'
Subject: RE: Current Status and Data Needs
Date: 9/20/2011 3:36:02 PM

Norm,

I just got your voicemail, I had been in a meeting and away from my desk. Unfortunately, I have an appointment this afternoon and need to leave now to make it. I will call you first thing in the morning to answer your questions. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Karavayev, Louanne
Sent: Friday, September 16, 2011 4:03 PM
To: 'Norman Lee'
Cc: Eric Hughes; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

I just left you a voicemail, sorry to have missed you. Please see below for an updated Unit Data spreadsheet which includes planned outage information, as we discussed yesterday. I'd like to talk through a couple of things with you, so if you could give me a call back this afternoon or Monday morning, that would be great. Thanks,

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p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 10:23 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

That will be fine.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, September 15, 2011 10:20 AM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Let's talk at 1:30. If it's OK, you can call us at my desk (502/627-4993).

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 9:43 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Stuart,

I am available all day today. Eric is available from 1:00 PM to around 2:45 PM and after 4pm. Let me know what you would like to do and I will set up a conference call.

Thanks

Norm

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Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, September 14, 2011 10:35 PM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Norm,

We just now wrapped up a deliverable that we've been working on day and night (literally) for the last two+ weeks. We'll give you a call tomorrow. We should be able to turn our full attention to this project.

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Wednesday, September 14, 2011 2:07 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: Current Status and Data Needs

Stuart and Lou Anne,

Eric and I have looked at the data you sent and have identified some areas that require additional information and/or clarification.

I have attached the workbook with an additional spreadsheet that identifies in red the information that is still missing. Basically almost all of the cost data and the historical degradation data are still missing. We understand that separating out some of the cost data is difficult, but it is extremely important to executing the analysis methodology properly.

In addition, there are some areas of clarification that need to be made.

1. Is the information you sent in Nominal or Real dollars?

2. There are two ways that units that would normally retire during the study period can be handled.

a. Allow the unit to retire at its normal date and be replaced with generic units,

b. Extend units to some arbitrary period at or past 2040.

The assumption made for a given unit will determine the method used to incorporate the hock stick function. In addition, if extension is the method chosen then the cost of life extension will be required.

It is my understanding that Bud Carter is out with heart problems. I wish him well. However, at the present time, we are not in a position to build the model that is required to complete the analysis. Without the above information we will not be able to meet the end of the month deadline. Let's have a conference call to go over each of these items and see how we can get the project back as close as possible to on track. Please let me know when would be a good time and I will arrange a conference call-in number.

Thanks

Norm

Thanks

Norm

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= Mindshare 2012 | May 8-10 | Orlando, FL =
More details coming soon. =

= Dates and location for European Mindshare coming soon. =

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From: Karavayev, Louanne
To: 'Norman Lee'
Subject: RE: Current Status and Data Needs
Date: 9/22/2011 4:05:13 PM

Norm,

Please see attached an updated Unit Data spreadsheet. Everything has been updated and should be completed with the exception of Trimble County 5-10 Cap Ex. I am still working on those to make sure we get costs for outages correct. I'll update that and send the spreadsheet to you as soon as possible. Also, I wanted to talk to you about the expansion plan unit cap ex that we discussed yesterday afternoon. If you could give me a call I would appreciate it. Thank you,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Karavayev, Louanne
Sent: Tuesday, September 20, 2011 3:36 PM
To: 'Norman Lee'
Cc: 'Eric Hughes'; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

I just got your voicemail, I had been in a meeting and away from my desk. Unfortunately, I have an appointment this afternoon and need to leave now to make it. I will call you first thing in the morning to answer your questions. Thanks,

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f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Karavayev, Louanne
Sent: Friday, September 16, 2011 4:03 PM
To: 'Norman Lee'
Cc: Eric Hughes; Wilson, Stuart
Subject: RE: Current Status and Data Needs

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From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 10:23 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

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Sent: Thursday, September 15, 2011 10:20 AM

To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
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Sent: Wednesday, September 14, 2011 10:35 PM

To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

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From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
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To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
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Thanks

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Existing Data

	BR1	BR2	BR3	BR5	BR6	BR7	BR8	BR9	BR10	BR11	CR11	GH1	GH2	HAF	MC1	MC2	MC3	PR11	PR12	PR13	TC5	TC6	TC7	TC8	TC9	TC10	ZN1
Operations																											
EUOR (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heat Rate (Btu/kWh)																											
January	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
February	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
March	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
April	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
June	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
July	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
August	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
September	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
October	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
November	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
December	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Max Capacity (MW)																											
January	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
February	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
March	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
April	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
June	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
July	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
August	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
September	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
October	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
November	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
December	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Planned Outages (wks/yr)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Emissions (lb/mmBtu)																											
CO2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NOX	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SO2 Removal Rate (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cost Data																											
Variable O&M																											
Consumables	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ash handling	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fixed O&M ($)																											
Operations	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Outage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
New Controls	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Admin cost																											
Property taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allocated company overhead	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cap Ex																											
Annual/Periodic	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1
One time	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
(i.e. bag house, etc.)																											
O&M Escalation Rate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Capital Escalation Rate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Existing Data **Brown 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate (Btu/kWh)																															
January	11,006	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
February	11,006	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
March	11,056	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
April	11,056	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
May	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
June	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
July	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
August	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
September	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
October	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
November	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
December	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
Max Capacity (MW)																															
January	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
February	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
March	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
April	106	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
May	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
June	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
July	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
August	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
September	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
October	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
November	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
December	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
Planned Outages (wks/yr)	2	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518
HG	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.3622	0.6511	0.6601	0.8675	10.5398	10.7506	10.9656	11.1849	11.4086	11.6368	11.8695	12.1069	12.3491	12.5960	12.8480	13.1049	13.3670	13.6344	13.9070	14.1852	14.4689	14.7583	15.0534	15.3545	15.6616	15.9748	16.2943	16.6202	16.9526	17.2917	17.6375
Ash handling	0.5453	0.5562	0.5248	0.6391	0.6519	0.6649	0.6782	0.6918	0.7056	0.7197	0.7341	0.7488	0.7638	0.7791	0.7946	0.8105	0.8267	0.8433	0.8601	0.8773	0.8949	0.9128	0.9310	0.9497	0.9687	0.9880	1.0078	1.0279	1.0485	1.0695	1.0909
Fixed O&M ($)																															
Operations	930,170	948,773	984,944	1,056,886	1,085,361	1,114,626	1,144,681	1,175,599	1,207,412	1,240,056	1,273,627	1,299,100	1,325,082	1,351,583	1,378,615	1,406,187	1,434,311	1,462,997	1,492,257	1,522,103	1,552,545	1,583,595	1,615,267	1,647,573	1,680,524	1,714,135	1,748,417	1,783,386	1,819,053	1,855,434	1,892,543
Maintenance	1,474,523	1,659,478	1,375,520	1,817,576	1,431,091	1,796,272	1,488,907	1,868,842	1,549,059	1,944,343	2,087,823	2,022,894	1,676,751	2,104,619	1,744,492	2,189,646	1,814,970	2,398,252	1,888,294	2,370,143	1,964,581	2,465,897	2,043,950	2,565,519	2,754,838	2,669,166	2,212,438	2,777,000	2,301,820	2,889,191	2,394,814
Outage	564,028	716,029	443,280	4,572,618	461,189	775,053	479,821	806,365	499,205	838,942	5,252,500	872,836	540,356	908,098	562,186	944,785	584,899	6,033,472	608,528	1,022,666	633,113	1,063,982	658,691	1,106,967	6,930,563	1,151,688	712,988	1,198,216	741,793	1,246,624	771,761
New Controls	0	100,212	100,877	368,381	602,431	614,663	627,143	639,872	652,888	666,125	679,686	693,280	707,145	721,288	735,714	750,428	765,437	780,746	796,361	812,288	828,534	845,104	862,006	879,246	896,831	914,768	933,063	951,725	970,759	990,174	1,009,978
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	2,040,875	2,081,693	2,156,620	2,283,283	2,351,781	2,422,335	2,494,943	2,569,834	2,647,009	2,726,468	2,808,209	2,864,373	2,921,661	2,980,094	3,039,696	3,100,490	3,162,500	3,225,750	3,290,265	3,356,070	3,423,191	3,491,655	3,561,488	3,632,718	3,705,372	3,779,480	3,855,069	3,932,171	4,010,814	4,091,031	4,172,851
Cap Ex																															
Annual/Periodic	896,356	1,204,232	656,558	9,378,606	693,840	1,344,877	733,239	1,421,245	774,875	1,501,949	#########	1,587,235	865,375	1,677,365	914,514	1,772,612	966,444	#########	1,021,322	1,979,640	1,079,317	2,092,052	1,140,605	2,210,847	#########	2,336,388	1,273,819	2,469,057	1,346,152	2,609,260	1,422,592
One time	2,536,274	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Existing Data — Brown 2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate (Btu/kWh)																															
January	10,299	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
February	10,299	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
March	10,349	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
April	10,349	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
May	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
June	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
July	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
August	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
September	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
October	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
November	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
December	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
Max Capacity (MW)																															
January	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
February	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
March	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
April	166	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
May	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
June	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
July	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
August	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
September	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
October	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
November	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
December	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
Planned Outages (wks/yr)	5	1	3	4	1	MO	1	3	1	3	1	3	MO	1	3	1	3	1	3	MO	1	3	1	3	1	3	MO	1	3	1	3
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346
HG	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.3343	0.6116	0.6200	0.8260	8.5749	8.7464	8.9213	9.0998	9.2817	9.4674	9.6567	9.8499	10.0469	10.2478	10.4528	10.6618	10.8750	11.0925	11.3144	11.5407	11.7715	12.0069	12.2471	12.4920	12.7419	12.9967	13.2566	13.5218	13.7922	14.0680	14.3494
Ash handling	0.4663	0.4756	0.4758	0.4889	0.4987	0.5086	0.5188	0.5292	0.5398	0.5506	0.5616	0.5728	0.5843	0.5959	0.6079	0.6200	0.6324	0.6451	0.6580	0.6711	0.6845	0.6982	0.7122	0.7264	0.7410	0.7558	0.7709	0.7863	0.8021	0.8181	0.8345
Fixed O&M ($)																															
Operations	1,538,004	1,568,764	1,628,571	1,747,524	1,794,607	1,842,996	1,892,691	1,943,812	1,996,414	2,050,389	2,105,899	2,148,017	2,190,977	2,234,796	2,279,492	2,325,082	2,371,584	2,419,016	2,467,396	2,516,744	2,567,079	2,618,420	2,670,789	2,724,204	2,778,688	2,834,262	2,890,947	2,948,766	3,007,742	3,067,897	3,129,255
Maintenance	2,286,929	2,332,667	2,455,248	2,257,102	2,312,893	2,370,119	2,428,781	2,488,985	2,550,850	2,614,137	2,679,204	2,732,788	2,787,444	2,843,193	2,900,057	2,958,058	3,017,219	3,077,564	3,139,115	3,201,897	3,265,935	3,331,254	3,397,879	3,465,837	3,535,153	3,605,856	3,677,973	3,751,533	3,826,564	3,903,095	3,981,157
Outage	489,190	485,073	646,700	519,133	529,515	4,701,701	535,560	714,009	557,197	742,855	579,707	772,866	5,400,777	615,190	820,172	640,044	853,307	665,901	887,781	6,203,795	706,660	942,120	735,209	980,181	764,911	1,019,781	7,126,211	811,730	1,082,199	844,524	1,125,920
New Controls	0	165,697	166,797	523,501	731,935	746,877	762,122	777,675	793,587	809,761	826,345	842,871	859,729	876,923	894,462	912,351	930,598	949,210	968,194	987,558	1,007,309	1,027,456	1,048,005	1,068,965	1,090,344	1,112,151	1,134,394	1,157,082	1,180,223	1,203,828	1,227,904
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	3,374,516	3,442,007	3,565,897	3,775,329	3,888,589	4,005,246	4,125,301	4,249,132	4,376,738	4,508,120	4,643,277	4,736,142	4,830,865	4,927,482	5,026,032	5,126,553	5,229,084	5,333,665	5,440,339	5,549,145	5,660,128	5,773,331	5,888,797	6,006,573	6,126,705	6,249,239	6,374,224	6,501,708	6,631,742	6,764,377	6,899,665
Cap Ex																															
Annual/Periodic	103,831	98,629	379,114	112,800	0	#########	113,233	435,246	119,662	459,962	126,457	486,080	#########	137,380	528,065	145,181	558,050	153,425	589,739	#########	166,677	640,677	176,141	677,057	186,144	715,503	#########	202,221	777,304	213,704	821,442
One time	2,688,073	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Brown 3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Heat Rate (Btu/kWh)																															
January	11,002	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
February	11,002	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
March	11,052	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
April	11,052	11,052	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
May	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
June	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
July	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
August	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
September	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
October	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
November	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
December	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
Max Capacity (MW)																															
January	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
February	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
March	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
April	412	412	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
May	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
June	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
July	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
August	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
September	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
October	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
November	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
December	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
Planned Outages (wks/yr)	3	MO	1	3	4	3	1	3	MO	3	1	3	1	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1	MO	1
Emissions (lb/mmBtu)																															
CO_2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.327	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030
HG	2.00E-06	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO_2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.3365	0.6350	2.3431	2.5612	2.6124	5.6677	5.7811	5.8967	6.0146	6.1349	6.2576	6.3828	6.5104	6.6406	6.7734	6.9089	7.0471	7.1880	7.3318	7.4784	7.6280	7.7805	7.9361	8.0949	8.2568	8.4219	8.5903	8.7621	8.9374	9.1161	9.2985
Ash handling	0.6105	0.6227	0.5568	0.5746	0.5861	0.5978	0.6098	0.6220	0.6344	0.6471	0.6600	0.6732	0.6867	0.7004	0.7144	0.7287	0.7433	0.7582	0.7733	0.7888	0.8046	0.8207	0.8371	0.8538	0.8709	0.8883	0.9061	0.9242	0.9427	0.9615	0.9808
Fixed O&M ($)																															
Operations	3,831,194	3,907,818	4,056,801	4,353,113	4,470,399	########	4,714,726	4,842,071	4,973,103	5,107,557	5,245,831	5,350,748	5,457,763	5,566,918	5,678,256	5,791,822	5,907,658	6,025,811	6,146,327	6,269,254	6,394,639	6,522,532	6,652,982	6,786,042	6,921,763	7,060,198	7,201,402	7,345,430	7,492,339	7,642,185	7,795,029
Maintenance	6,681,801	7,101,728	6,502,545	7,090,780	7,259,123	########	7,038,564	7,675,289	8,157,654	7,985,370	7,618,768	8,307,979	7,926,566	8,643,622	8,246,799	9,370,580	8,579,970	9,356,134	8,926,601	9,734,122	9,287,235	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Outage	1,016,365	6,360,398	400,610	1,078,575	1,100,146	########	433,633	1,167,484	7,306,098	1,214,650	469,378	1,263,722	488,341	1,314,777	508,070	8,392,410	528,596	1,423,156	549,952	1,480,652	572,170	1,540,470	9,640,241	1,602,705	619,335	1,667,455	644,356	1,734,820	670,388	#########	697,472
New Controls	0	545,755	555,485	877,360	1,169,840	########	1,422,412	1,451,644	1,481,547	1,511,964	1,543,140	1,574,003	1,605,483	1,637,593	1,670,345	1,703,752	1,737,827	1,772,583	1,808,035	1,844,195	1,881,079	1,918,701	1,957,075	1,996,217	2,036,141	2,076,864	2,118,401	2,160,769	2,203,984	2,248,064	2,293,025
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	8,405,981	8,574,100	8,882,713	9,404,411	9,686,544	########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Cap Ex																															
Annual/Periodic	3,221,678	#########	1,331,132	3,499,947	0	########	1,486,598	3,908,714	#########	4,130,666	1,660,221	4,365,222	1,754,495	4,613,097	1,854,122	#########	1,959,407	5,151,871	2,070,670	5,444,415	2,188,251	5,753,571	#########	6,080,282	2,443,822	6,425,544	2,582,592	6,790,413	2,729,242	#########	2,884,219
One time	0	2,176,274	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO_2																														
SO_2																														
NOX																														
HG																														

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Brown 5**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
Heat Rate (Btu/kWh)																															
January	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
February	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
March	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
April	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
May	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
June	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
July	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
August	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
September	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
October	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
November	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
December	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
Max Capacity (MW)																															
January	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
February	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
March	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
April	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
May	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
June	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
July	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
August	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
September	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
October	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
November	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
December	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
Planned Outages (wks/yr)	0	2	0	2	0	0	0	0	0	8	0	2	0	2	0	0	0	0	0	8	0	2	0	2	0	0	0	0	0	8	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	80,239	81,844	79,309	91,357	93,525	95,745	98,020	100,351	102,745	105,191	107,704	109,858	112,055	114,297	116,582	118,914	121,292	123,718	126,193	128,716	131,291	133,917	136,595	139,327	142,113	144,956	147,855	150,812	153,828	156,905	160,043
Maintenance	246,467	251,397	297,062	272,764	279,173	285,738	292,460	299,348	306,420	313,641	321,063	327,484	334,034	340,715	347,529	354,480	361,569	368,801	376,177	383,700	391,374	399,202	407,186	415,330	423,636	432,109	440,751	449,566	458,557	467,728	477,083
Outage	0	0	0	0	0	0	0	0	0	671,193	0	0	0	0	0	0	0	0	0	818,180	0	0	0	0	0	0	0	0	0	997,357	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	170,689	174,103	178,128	183,546	189,052	194,724	200,561	206,581	212,785	219,172	225,743	230,258	234,863	239,560	244,352	249,239	254,223	259,308	264,494	269,784	275,180	280,683	286,297	292,023	297,863	303,820	309,897	316,095	322,417	328,865	335,442
Cap Ex																															
Annual/Periodic	0	55,257	432,467	0	0	0	0	0	0	30,428,248	0	0	0	0	0	0	0	0	0	40,105,884	0	0	0	0	0	0	0	0	0	52,861,471	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Brown 6**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
Heat Rate (Btu/kWh)																
January	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
February	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
March	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
April	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
May	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
June	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
July	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
August	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
September	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
October	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
November	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
December	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
Max Capacity (MW)																
January	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
February	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
March	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
April	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
May	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
June	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
July	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
August	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
September	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
October	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
November	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
December	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
Planned Outages (wks/yr)	1	1	1	2	1	1	8	1	1	2	1	1	1	2	1	1
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	87,837	89,594	85,262	87,737	89,940	92,199	94,517	96,896	99,342	101,845	104,419	106,507	108,638	110,810	113,026	115,287
Maintenance	274,176	279,660	337,204	302,661	309,968	317,460	325,135	333,007	341,092	349,357	357,853	365,010	372,310	379,756	387,351	395,098
Outage	55,392	56,500	77,000	93,000	94,860	96,757	632,480	100,663	102,681	104,727	106,829	108,966	111,145	113,368	115,635	117,948
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	224,668	229,161	234,459	241,590	248,838	256,303	263,986	271,910	280,076	288,483	297,132	303,075	309,136	315,319	321,625	328,058
Cap Ex																
Annual/Periodic	0	72,732	72,677	0	0	0	28,009,000	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
Heat Rate (Btu/kWh)															
January	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
February	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
March	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
April	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
May	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
June	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
July	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
August	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
September	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
October	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
November	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
December	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
Max Capacity (MW)															
January	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
February	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
March	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
April	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
May	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
June	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
July	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
August	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
September	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
October	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
November	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
December	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
Planned Outages (wks/yr)	8	1	1	2	1	1	1	2	1	1	8	1	1	2	1
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	117,593	119,945	122,344	124,790	127,286	129,832	132,429	135,077	137,779	140,534	143,345	146,212	149,136	152,119	155,161
Maintenance	403,000	411,060	419,281	427,667	436,220	444,945	453,844	462,921	472,179	481,623	491,255	501,080	511,102	521,324	531,750
Outage	770,990	122,713	125,167	127,671	130,224	132,829	135,485	138,195	140,959	143,778	939,832	149,587	152,578	155,630	158,742
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	334,619	341,311	348,137	355,100	362,202	369,446	376,835	384,372	392,059	399,900	407,898	416,056	424,378	432,865	441,522
Cap Ex															
Annual/Periodic	36,917,200	0	0	0	0	0	0	0	0	0	48,658,632	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data	**Brown 7**																														
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
Heat Rate (Btu/kWh)																															
January	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
February	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
March	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
April	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
May	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
June	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
July	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
August	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
September	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
October	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
November	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
December	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
Max Capacity (MW)																															
January	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
February	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
March	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
April	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
May	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
June	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
July	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
August	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
September	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
October	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
November	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
December	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
Planned Outages (wks/yr)	2	1	1	2	1	2	1	8	1	1	2	1	1	2	1	2	1	8	1	1	2	1	1	2	1	2	1	8	1	1	2
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	87,837	89,594	85,262	87,737	89,940	92,199	94,517	96,896	99,342	101,845	104,419	106,507	108,638	110,810	113,026	115,287	117,593	119,945	122,344	124,790	127,286	129,832	132,429	135,077	137,779	140,534	143,345	146,212	149,136	152,119	155,161
Maintenance	274,176	279,660	337,204	302,661	309,968	317,460	325,135	333,007	341,092	349,357	357,853	365,010	372,310	379,756	387,351	395,098	403,000	411,060	419,281	427,667	436,220	444,945	453,844	462,921	472,179	481,623	491,255	501,080	511,102	521,324	531,750
Outage	40,686	41,500	47,000	48,000	48,960	49,939	50,938	645,130	52,997	54,053	55,138	56,240	57,365	58,512	59,683	60,876	62,094	786,409	64,602	65,895	67,212	68,557	69,928	71,326	72,753	74,208	75,692	958,629	78,750	80,325	81,932
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	224,668	229,161	234,459	241,590	248,838	256,303	263,986	271,910	280,076	288,483	297,132	303,075	309,136	315,319	321,625	328,058	334,619	341,311	348,137	355,100	362,202	369,446	376,835	384,372	392,059	399,900	407,898	416,056	424,378	432,865	441,522
Cap Ex																															
Annual/Periodic	0	98,013	72,677	0	0	200,000	824,000	34,069,000	259,280	1,198,400	1,021,040	0	0	0	0	0	0	44,904,569	0	0	0	0	0	0	0	0	0	59,186,367	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data																														
Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Brown 8

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
February	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
March	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
April	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
May	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
June	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
July	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
August	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
September	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
October	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
November	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
December	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
Max Capacity (MW)																															
January	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
February	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
March	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
April	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
May	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
October	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
November	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
December	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Planned Outages (wks/yr)	0	1	2	0	2	0	0	0	2	0	8	0	1	2	0	2	0	0	0	2	0	8	0	1	2	0	2	0	0	0	2
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760	90,536	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	223,295	227,761	236,710	247,120	252,926	258,873	264,963	271,204	277,611	284,153	290,878	296,695	302,629	308,682	314,855	321,153	327,576	334,127	340,810	347,626	354,578	361,670	368,903	376,281	383,807	391,483	399,313	407,299	415,445	423,754	432,229
Outage	0	52,000	60,000	0	0	0	0	0	0	0	684,617	0	0	0	0	0	0	0	0	0	0	851,235	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378	225,806	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex																															
Annual/Periodic	0	843,035	506,959	1,999,863	0	0	0	0	0	0	31,280,239	0	0	0	0	0	0	0	0	0	0	42,383,257	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Brown 9

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)																
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	2	1	8	0	2	0	0	0	2	0	2	1	8	0	2	0
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760	90,536
Maintenance	262,511	267,761	278,710	290,380	297,051	303,881	310,871	318,029	325,375	332,868	340,571	347,382	354,330	361,416	368,645	376,017
Outage	0	0	300,000	0	0	0	0	0	0	0	0	0	365,698	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378	225,806
Cap Ex																
Annual/Periodic	0	2,200,946	10,210,000	0	0	2,300,000	9,476,000	0	2,981,720	13,781,600	11,741,960	0	33,056,456	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)															
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)															
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	0	0	2	0	2	1	8	0	2	0	0	0	2	0	2
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	383,538	391,209	399,033	407,013	415,154	423,457	431,926	440,564	449,376	458,363	467,530	476,881	486,419	496,147	506,070
Outage	0	0	0	0	0	0	445,784	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex															
Annual/Periodic	0	0	0	0	0	0	43,569,988	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Brown 10**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Operations															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)															
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)															
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	0	2	0	8	0	2	0	0	2	0	0	2	0	8	0
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760
Maintenance	223,295	227,761	236,710	247,120	252,926	258,873	264,963	271,204	277,611	284,153	290,878	296,695	302,629	308,682	314,855
Outage	0	0	0	596,000	0	0	0	0	0	0	0	0	0	726,521	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378
Cap Ex															
Annual/Periodic	0	636,170	3,021,063	13,388,143	0	1,324,000	3,104,000	0	0	0	0	0	0	33,982,037	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)																
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	2	0	0	2	0	0	2	0	8	0	2	0	0	2	0	0
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	90,536	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	321,153	327,576	334,127	340,810	347,626	354,578	361,670	368,903	376,281	383,807	391,483	399,313	407,299	415,445	423,754	432,229
Outage	0	0	0	0	0	0	0	0	885,625	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	225,806	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex																
Annual/Periodic	0	0	0	0	0	0	0	0	44,789,947	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations
FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG
Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — Brown 11

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
February	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
March	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
April	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
May	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
June	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
July	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
August	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
September	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
October	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
November	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
December	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
Max Capacity (MW)																															
January	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
February	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
March	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
April	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
May	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
October	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
November	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
December	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Planned Outages (wks/yr)	0	2	0	0	0	8	0	0	0	0	0	2	0	0	0	8	0	0	0	0	0	2	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760	90,536	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	223,295	227,761	236,710	247,120	252,926	258,873	264,963	271,204	277,611	284,153	290,878	296,695	302,629	308,682	314,855	321,153	327,576	334,127	340,810	347,626	354,578	361,670	368,903	376,281	383,807	391,483	399,313	407,299	415,445	423,754	432,229
Outage	49,020	50,000	55,000	56,650	57,783	620,078	60,117	61,318	62,547	63,794	65,074	66,375	67,703	69,057	70,438	755,872	73,284	74,749	76,244	77,769	79,325	80,911	82,529	84,180	85,864	921,404	89,332	91,119	92,941	94,800	96,696
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378	225,806	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex																															
Annual/Periodic	0	636,170	231,409	0	0	0	0	0	0	0	0	0	0	0	0	35,911,673	0	0	0	0	0	0	0	0	0	47,333,300	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Cane Run 11**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
February	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
March	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
April	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
May	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
June	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
July	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
August	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
September	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
October	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
November	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
December	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
Max Capacity (MW)																															
January	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
February	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
March	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
April	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
May	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
June	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
July	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
August	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
September	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
October	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
November	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
December	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	17,137	17,480	18,008	18,552	18,923	19,302	19,687	20,081	20,483	20,891	21,311	21,737	22,172	22,615	23,067	23,529	23,999	24,479	24,969	25,468	25,978	26,497	27,027	27,568	28,119	28,681	29,255	29,840	30,437	31,046	31,667
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — **Ghent 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																
January	10,317	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134
February	10,317	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134
March	10,583	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395
April	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395
May	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395
June	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439
July	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439
August	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439
September	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395
October	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395
November	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395
December	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134	10,134
Max Capacity (MW)																
January	481	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475
February	481	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475
March	480	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474
April	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474
May	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474
June	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473
July	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473
August	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473
September	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474
October	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474
November	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474
December	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475	475
Planned Outages (wks/yr)	2	3	1	3	MO	4	1	4	1	3	1	MO	1	3	1	3
Emissions (lb/mmBtu)																
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046
HG	2.00E-06	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																
Variable O&M																
Consumables	1.6200	2.0564	2.4335	2.9382	2.9970	6.0701	6.1915	6.3153	6.4416	6.5705	6.7019	6.8359	6.9726	7.1121	7.2543	7.3994
Ash handling	0.1455	0.1484	0.1513	0.1866	0.1903	0.1941	0.1980	0.2020	0.2060	0.2101	0.2143	0.2186	0.2230	0.2275	0.2320	0.2366
Fixed O&M ($)																
Operations	3,234,264	3,298,949	3,469,775	3,652,132	3,750,514	3,851,623	3,955,461	4,062,279	4,172,191	4,284,972	4,400,958	4,488,977	4,578,757	4,670,332	4,763,738	4,859,013
Maintenance	5,784,575	5,900,267	6,195,125	6,432,687	6,582,744	6,736,444	6,893,787	7,054,987	7,220,474	7,389,389	7,563,020	7,714,280	7,868,566	8,025,937	8,186,456	8,350,185
Outage	2,730,491	3,433,300	2,179,640	3,490,130	8,714,933	3,631,131	2,359,312	3,777,717	2,454,629	4,022,658	2,553,796	#########	2,656,969	4,354,255	2,764,311	4,530,166
New Controls	0	1,013,559	1,006,111	939,543	1,738,202	2,469,042	3,016,049	3,078,758	3,142,852	3,208,201	3,275,040	3,340,541	3,407,352	3,475,499	3,545,009	3,615,909
Admin cost																
Property taxes																
Insurance																
Allocated company ov	7,227,175	7,371,719	7,711,907	8,193,285	8,426,465	8,666,388	8,913,053	9,167,156	9,428,821	9,697,795	9,974,458	#########	#########	#########	#########	#########
Cap Ex																
Annual/Periodic	3,751,675	4,072,289	3,743,106	#########	#########	3,926,305	4,180,273	5,485,013	4,417,645	5,079,062	4,668,497	#########	4,933,593	5,672,258	5,213,742	5,994,351
One time	1,990,017	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)															
January	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
February	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
March	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
April	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
May	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
June	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
July	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
August	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
September	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
October	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
November	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
December	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
Max Capacity (MW)															
January	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
February	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
March	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
April	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
May	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
June	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
July	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
August	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
September	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
October	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
November	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
December	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
Planned Outages (wks/yr)	1	3	MO	1	3	1	3	1	3	MO	1	3	1	3	1
Emissions (lb/mmBtu)															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046
HG	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data															
Variable O&M															
Consumables	7.5474	7.6984	7.8523	8.0094	8.1696	8.3329	8.4996	8.6696	8.8430	9.0198	9.2002	9.3843	9.5719	9.7634	9.9586
Ash handling	0.2414	0.2462	0.2511	0.2562	0.2613	0.2665	0.2718	0.2773	0.2828	0.2885	0.2942	0.3001	0.3061	0.3122	0.3185
Fixed O&M ($)															
Operations	4,956,193	5,055,317	5,156,424	5,259,552	5,364,743	5,472,038	5,581,479	5,693,108	5,806,970	5,923,110	6,041,572	6,162,403	6,285,652	6,411,365	6,539,592
Maintenance	8,517,188	8,687,532	8,861,283	9,038,509	9,219,279	9,403,664	9,591,738	9,783,572	9,979,244	#########	#########	#########	#########	#########	#########
Outage	2,875,989	4,713,185	#########	3,052,022	5,001,670	3,175,324	5,203,737	3,303,607	5,413,968	#########	3,505,814	5,745,346	3,647,449	5,977,458	3,794,806
New Controls	3,688,227	3,761,992	3,837,231	3,913,976	3,992,256	4,072,101	4,153,543	4,236,614	4,321,346	4,407,773	4,495,928	4,585,847	4,677,564	4,771,115	4,866,537
Admin cost															
Property taxes															
Insurance															
Allocated company ov	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Cap Ex															
Annual/Periodic	5,509,799	6,334,734	#########	5,985,702	6,881,890	6,325,595	7,272,672	6,684,787	7,685,643	#########	7,262,179	8,349,482	7,674,554	8,823,599	8,110,346
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Ghent 2**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																
January	10,351	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227
February	10,351	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227
March	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352
April	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352
May	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
June	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
July	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
August	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
September	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
October	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
November	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
December	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
Max Capacity (MW)																
January	477	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468
February	477	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468
March	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477
April	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477
May	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477
June	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486
July	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486
August	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486
September	486	486	486	469	486	477	477	477	477	477	477	477	477	477	477	477
October	486	486	486	469	486	477	477	477	477	477	477	477	477	477	477	477
November	486	486	486	503	477	477	477	477	477	477	477	477	477	477	477	477
December	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468	468
Planned Outages (wks/yr)	2 MO		1	1 MO		4	2	1 MO		1	3	1	3	1	3 MO	
Emissions (lb/mmBtu)																
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268
HG	4.00E-06	4.00E-06	4.00E-06	4.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Cost Data																
Variable O&M																
Consumables	0.4668	0.8161	1.1015	1.4277	1.4563	3.8581	3.9353	4.0140	4.0942	4.1761	4.2597	4.3448	4.4317	4.5204	4.6108	4.7030
Ash handling	0.1693	0.1727	0.1498	0.1603	0.1635	0.1668	0.1701	0.1735	0.1770	0.1805	0.1841	0.1878	0.1916	0.1954	0.1993	0.2033
Fixed O&M ($)																
Operations	2,295,234	2,341,139	2,458,591	2,574,429	2,646,121	2,719,853	2,795,625	2,873,639	2,953,950	3,036,448	3,121,299	3,183,725	3,247,399	3,312,347	3,378,594	3,446,166
Maintenance	5,268,874	5,374,252	5,752,427	6,039,486	6,180,275	6,324,481	6,472,102	6,623,339	6,778,596	6,937,065	7,099,957	7,241,956	7,386,795	7,534,531	7,685,222	7,838,926
Outage	1,513,066	7,908,710	1,543,860	1,605,690	8,392,786	1,670,560	1,703,958	1,738,050	9,084,622	1,808,268	2,953,383	1,881,322	3,072,699	1,957,327	3,196,837	10,435,375
New Controls	0	0	0	0	575,989	1,778,893	2,319,163	2,365,546	2,412,858	2,461,115	2,510,336	2,560,543	2,611,754	2,663,989	2,717,269	2,771,614
Admin cost																
Property taxes																
Insurance																
Allocated company ov	6,390,358	6,518,165	6,616,488	7,012,749	7,210,934	7,414,821	7,624,410	7,840,279	8,062,552	8,290,983	8,525,939	8,696,458	8,870,387	9,047,795	9,228,751	9,413,326
Cap Ex																
Annual/Periodic	1,270,962	15,083,285	2,324,576	2,383,369	16,386,088	7,008,861	1,500,000	2,661,728	18,299,859	2,812,871	4,630,201	2,972,598	4,893,122	3,141,394	5,170,973	22,202,380
One time	122,400	37,354,857	48,367,602	72,403,528	6,693,304	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)															
January	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
February	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
March	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
April	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
May	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
June	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
July	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
August	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
September	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
October	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
November	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
December	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
Max Capacity (MW)															
January	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
February	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
March	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
April	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
May	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
June	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
July	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
August	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
September	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
October	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
November	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
December	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
Planned Outages (wks/yr)	1	3	1	3	1	3 MO		1	3	1	3	1	3 MO		1
Emissions (lb/mmBtu)															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268
HG	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Cost Data															
Variable O&M															
Consumables	4.7971	4.8930	4.9909	5.0907	5.1925	5.2963	5.4023	5.5103	5.6205	5.7329	5.8476	5.9645	6.0838	6.2055	6.3296
Ash handling	0.2074	0.2115	0.2157	0.2201	0.2245	0.2290	0.2335	0.2382	0.2430	0.2478	0.2528	0.2578	0.2630	0.2683	0.2736
Fixed O&M ($)															
Operations	3,515,090	3,585,391	3,657,099	3,730,241	3,804,846	3,880,943	3,958,562	4,037,733	4,118,488	4,200,857	4,284,875	4,370,572	4,457,983	4,547,143	4,638,086
Maintenance	7,995,705	8,155,619	8,318,731	8,485,106	8,654,808	8,827,904	9,004,462	9,184,552	9,368,243	9,555,608	9,746,720	9,941,654	10,140,487	10,343,297	10,550,163
Outage	2,077,131	3,392,508	2,161,047	3,529,566	2,248,354	3,672,160	11,986,966	2,385,971	3,896,926	2,482,364	4,054,362	2,582,652	4,218,158	13,769,256	2,740,731
New Controls	2,827,046	2,883,587	2,941,259	3,000,084	3,060,086	3,121,288	3,183,713	3,247,388	3,312,335	3,378,582	3,446,154	3,515,077	3,585,378	3,657,086	3,730,228
Admin cost															
Property taxes															
Insurance															
Allocated company ov	9,601,592	9,793,624	9,989,497	10,189,286	10,393,072	10,600,934	10,812,952	11,029,211	11,249,796	11,474,791	11,704,287	11,938,373	12,177,141	12,420,683	12,669,097
Cap Ex															
Annual/Periodic	3,412,728	5,617,611	3,606,516	5,936,601	3,811,309	6,273,705	26,937,131	4,140,507	6,815,590	4,375,621	7,202,606	4,624,086	7,611,599	32,681,587	5,023,487
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

Adjusted Data

Operations 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data | **Haefling 1-3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
February	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
March	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
April	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
May	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
June	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
July	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
August	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
September	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
October	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
November	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
December	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Max Capacity (MW)																															
January	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
February	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
March	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
April	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
May	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
July	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
August	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
September	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
October	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
November	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
December	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	11,765	12,000	12,000	12,360	12,608	12,860	13,117	13,379	13,647	13,919	14,198	14,482	14,772	15,067	15,369	15,676	15,990	16,309	16,636	16,968	17,308	17,654	18,007	18,367	18,734	19,109	19,491	19,881	20,279	20,684	21,098
Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outage	88,235	90,000	93,000	96,000	97,920	99,878	101,875	103,910	105,994	108,106	110,275	112,481	114,730	117,025	119,365	121,753	124,188	126,672	129,205	131,789	134,425	137,113	139,856	142,653	145,506	148,416	151,384	154,412	157,500	160,650	163,863
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Mill Creek 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,004	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
February	10,004	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
March	10,182	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
April	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
May	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
June	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
July	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
August	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
September	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
October	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
November	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
December	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
Max Capacity (MW)																															
January	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
February	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
March	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
April	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
May	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
June	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
July	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
August	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
September	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
October	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
November	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
December	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Planned Outages (wks/yr)	2	2	MO	1	MO	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
HG	4.80E-06	4.80E-06	4.80E-06	4.80E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.5780	0.6007	0.6274	0.6570	0.6701	4.9693	5.0687	5.1701	5.2735	5.3789	5.4865	5.5962	5.7082	5.8223	5.9388	6.0575	6.1787	6.3023	6.4283	6.5569	6.6880	6.8218	6.9582	7.0974	7.2393	7.3841	7.5318	7.6824	7.8361	7.9928	8.1527
Ash handling	0.3000	0.3060	0.3575	0.3060	0.3121	0.3184	0.3247	0.3312	0.3379	0.3446	0.3515	0.3585	0.3657	0.3730	0.3805	0.3881	0.3959	0.4038	0.4118	0.4201	0.4285	0.4371	0.4458	0.4547	0.4638	0.4731	0.4825	0.4922	0.5020	0.5121	0.5223
Fixed O&M ($)																															
Operations	2,331,147	2,377,770	2,485,442	2,596,975	2,666,902	2,738,768	2,812,572	2,888,494	2,966,614	3,046,773	3,129,209	3,191,793	3,255,629	3,320,741	3,387,156	3,454,899	3,523,997	3,594,477	3,666,367	3,739,694	3,814,488	3,890,778	3,968,593	4,047,965	4,128,925	4,211,503	4,295,733	4,381,648	4,469,281	4,558,666	4,649,840
Maintenance	5,225,870	5,330,388	6,694,207	5,457,910	5,583,028	5,678,410	7,460,844	5,907,818	7,762,262	6,146,494	7,843,331	6,394,812	8,402,122	6,653,162	8,741,567	6,921,950	9,094,727	7,201,597	9,189,712	7,492,541	9,844,425	7,795,240	10,242,139	8,110,168	10,655,922	8,437,819	10,767,212	8,778,706	11,534,313	9,133,366	12,000,299
Outage	1,263,143	1,288,406	3,360,342	739,378	2,004,166	769,249	3,141,521	800,327	3,268,439	832,660	3,937,176	866,299	3,537,863	901,298	3,680,793	937,710	3,829,497	975,594	4,613,029	1,015,008	4,145,170	1,056,014	4,312,635	1,098,677	4,486,866	1,143,063	5,404,899	1,189,243	4,856,728	1,237,289	5,052,940
New Controls	0	44,484	46,604	47,839	274,547	468,294	501,438	535,245	569,732	604,901	640,782	653,598	666,670	680,003	693,603	707,475	721,625	736,057	750,778	765,794	781,110	796,732	812,667	828,920	845,498	862,408	879,657	897,250	915,195	933,499	952,169
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	5,477,248	5,586,793	6,116,777	5,862,973	6,030,097	6,202,062	6,378,857	6,560,997	6,748,557	6,941,369	7,139,692	7,282,485	7,428,135	7,576,698	7,728,232	7,882,796	8,040,452	8,201,261	8,365,287	8,532,592	8,703,244	8,877,309	9,054,855	9,235,952	9,420,671	9,609,085	9,801,266	9,997,292	10,197,238	10,401,182	10,609,206
Cap Ex																															
Annual/Periodic	671,206	690,000	10,460,000	4,640,000	7,350,000	4,903,478	14,566,649	5,181,917	15,393,802	5,476,167	13,045,977	5,787,125	########	6,115,742	########	6,463,018	19,199,540	6,830,014	16,271,273	7,217,849	21,441,900	7,627,708	22,659,457	8,060,839	23,946,152	8,518,566	20,293,943	9,002,284	26,742,881	9,513,470	28,261,449
One time	0	38,758,757	95,175,998	104,054,442	96,375,192	0	0	0	0	0																					
(i.e. bag house, etc.)																															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Mill Creek 2**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,145	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
February	10,145	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
March	10,614	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
April	10,614	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
May	10,614	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
June	10,421	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
July	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
August	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
September	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
October	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
November	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
December	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
Max Capacity (MW)																															
January	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
February	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
March	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
April	301	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
May	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
June	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
July	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
August	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
September	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
October	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
November	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
December	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
Planned Outages (wks/yr)	1	MO	1	4	MO	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
HG	4.80E-06	4.80E-06	4.80E-06	4.80E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.5916	0.6150	0.6423	0.6726	0.6861	5.1561	5.2592	5.3644	5.4717	5.5811	5.6928	5.8066	5.9227	6.0412	6.1620	6.2853	6.4110	6.5392	6.6700	6.8034	6.9394	7.0782	7.2198	7.3642	7.5115	7.6617	7.8149	7.9712	8.1307	8.2933	8.4591
Ash handling	0.3500	0.3570	0.3298	0.3906	0.3984	0.4064	0.4145	0.4228	0.4313	0.4399	0.4487	0.4577	0.4668	0.4762	0.4857	0.4954	0.5053	0.5154	0.5257	0.5362	0.5470	0.5579	0.5691	0.5805	0.5921	0.6039	0.6160	0.6283	0.6409	0.6537	0.6668
Fixed O&M ($)																															
Operations	2,315,759	2,362,075	2,469,036	2,579,833	2,649,299	2,720,690	2,794,007	2,869,428	2,947,033	3,026,662	3,108,554	3,170,725	3,234,140	3,298,822	3,364,799	3,432,095	3,500,737	3,570,751	3,642,166	3,715,010	3,789,310	3,865,096	3,942,398	4,021,246	4,101,671	4,183,704	4,267,378	4,352,726	4,439,781	4,528,576	4,619,148
Maintenance	5,185,610	6,181,027	5,395,109	6,949,623	7,104,469	7,230,387	5,839,839	7,522,495	6,075,769	7,242,058	6,321,230	8,142,591	6,576,608	8,471,551	6,842,302	8,813,802	7,118,731	8,485,225	7,406,328	9,540,343	7,705,544	9,925,772	8,016,848	#########	8,340,729	9,941,794	8,677,694	#########	9,028,273	#########	9,393,015
Outage	714,072	5,605,863	742,920	2,974,507	3,033,997	3,094,677	804,161	3,219,702	836,649	6,568,162	870,449	3,485,109	905,615	3,625,907	942,202	3,772,394	980,267	7,695,649	1,019,870	4,083,361	1,061,073	4,248,328	1,103,940	4,419,961	1,148,539	9,016,679	1,194,940	4,784,308	1,243,216	4,977,594	1,293,442
New Controls	0	44,191	46,296	47,523	540,116	816,932	848,546	880,793	913,687	947,232	981,457	1,001,087	1,021,108	1,041,531	1,062,361	1,083,608	1,105,281	1,127,386	1,149,934	1,172,933	1,196,391	1,220,319	1,244,725	1,269,620	1,295,012	1,320,913	1,347,331	1,374,277	1,401,763	1,429,798	1,458,394
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	5,832,477	5,949,127	5,658,045	6,105,758	6,277,408	6,453,981	6,635,465	6,822,369	7,014,800	7,212,532	7,415,907	7,564,225	7,715,509	7,869,819	8,027,216	8,187,760	8,351,515	8,518,546	8,688,917	8,862,695	9,039,949	9,220,748	9,405,163	9,593,266	9,785,131	9,980,834	#########	#########	#########	#########	#########
Cap Ex																															
Annual/Periodic	1,201,759	10,364,000	1,270,000	3,670,000	2,980,000	3,878,397	1,418,326	4,098,628	1,498,865	#########	1,583,976	4,577,317	1,673,921	4,837,235	1,768,973	5,111,913	1,869,422	#########	1,975,575	5,708,946	2,087,756	6,033,122	2,206,307	6,375,707	2,331,590	#########	2,463,987	7,120,341	2,603,902	7,524,663	2,751,762
One time	0	38,165,230	93,797,377	103,627,001	95,752,393	0	0	0	0	0																					
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
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Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data **Mill Creek 3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																
January	10,917	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726
February	10,917	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726
March	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
April	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
May	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
June	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777
July	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777
August	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777
September	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
October	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668
November	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
December	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
Max Capacity (MW)																
January	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
February	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
March	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
April	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
May	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
June	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
July	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
August	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
September	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385
October	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388
November	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388
December	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388
Planned Outages (wks/yr)	MO	2	MO	1	MO	1	4	1	MO	1	4	1	4	1	4	1
Emissions (lb/mmBtu)																
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
HG	1.70E-06	1.70E-06	1.70E-06	1.70E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	90	90	90	90	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																
Variable O&M																
Consumables	2.0708	1.0675	1.1263	2.2909	2.3367	5.4337	5.5424	5.6532	5.7663	5.8816	5.9992	6.1192	6.2416	6.3664	6.4938	6.6236
Ash handling	0.3181	0.3245	0.3647	0.3381	0.3449	0.3518	0.3588	0.3660	0.3733	0.3807	0.3884	0.3961	0.4041	0.4121	0.4204	0.4288
Fixed O&M ($)																
Operations	3,008,179	3,068,343	3,207,286	3,351,211	3,441,448	3,534,186	3,629,425	3,727,397	3,828,205	3,931,644	4,038,022	4,118,782	4,201,158	4,285,181	4,370,885	4,458,303
Maintenance	7,081,926	6,190,858	7,368,036	6,695,422	6,849,925	6,965,917	9,152,495	7,247,340	8,297,605	7,540,133	9,906,955	7,844,754	#########	8,161,682	#########	8,491,414
Outage	4,625,076	1,290,797	4,811,929	742,918	2,007,776	772,932	3,156,562	804,158	5,419,014	836,646	3,416,764	870,447	3,554,802	905,613	3,698,416	942,200
New Controls	0	57,404	67,573	96,028	213,950	809,832	826,027	842,546	859,402	876,581	894,122	912,004	930,244	948,849	967,826	987,183
Admin cost																
Property taxes																
Insurance																
Allocated company ov	6,900,101	7,038,103	7,723,403	7,402,412	7,614,807	7,833,382	8,058,128	8,289,704	8,528,193	8,773,409	9,025,639	9,206,152	9,390,275	9,578,081	9,769,642	9,965,035
Cap Ex																
Annual/Periodic	9,036,851	1,240,000	9,550,000	1,067,000	4,434,000	1,127,589	3,349,702	1,191,618	#########	1,259,282	3,740,921	1,330,789	3,953,346	1,406,357	4,177,833	1,486,216
One time	0	#########	#########	#########	#########	7,545,814	0	0	0	0						
(i.e. bag house, etc.)																

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)															
January	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
February	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
March	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
April	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
May	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
June	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
July	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
August	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
September	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
October	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
November	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
December	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
Max Capacity (MW)															
January	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
February	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
March	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
April	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
May	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
June	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
July	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
August	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
September	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
October	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
November	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
December	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
Planned Outages (wks/yr)	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4
Emissions (lb/mmBtu)															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
HG	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data															
Variable O&M															
Consumables	6.7561	6.8912	7.0291	7.1697	7.3130	7.4593	7.6085	7.7607	7.9159	8.0742	8.2357	8.4004	8.5684	8.7398	8.9146
Ash handling	0.4374	0.4461	0.4550	0.4641	0.4734	0.4829	0.4925	0.5024	0.5124	0.5227	0.5331	0.5438	0.5547	0.5658	0.5771
Fixed O&M ($)															
Operations	4,547,469	4,638,418	4,731,186	4,825,810	4,922,326	5,020,773	5,121,188	5,223,612	5,328,084	5,434,646	5,543,339	5,654,206	5,767,290	5,882,636	6,000,288
Maintenance	9,721,967	8,834,468	#########	9,191,380	#########	9,562,712	#########	9,949,045	#########	#########	#########	#########	#########	#########	#########
Outage	6,349,238	980,265	4,003,284	1,019,867	4,165,017	1,061,070	4,333,283	1,103,937	7,439,144	1,148,536	4,690,485	1,194,937	4,879,981	1,243,212	5,077,132
New Controls	1,006,926	1,027,065	1,047,606	1,068,558	1,089,929	1,111,728	1,133,962	1,156,642	1,179,775	1,203,370	1,227,437	1,251,986	1,277,026	1,302,566	1,328,618
Admin cost															
Property taxes															
Insurance															
Allocated company ov	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Cap Ex															
Annual/Periodic	#########	1,570,609	4,665,772	1,659,794	4,930,713	1,754,044	5,210,698	1,853,646	#########	1,958,903	5,819,269	2,070,137	6,149,710	2,187,688	6,498,915
One time															
(i.e. bag house, etc.)															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Paddy's Run 11

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
February	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
March	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
April	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
May	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
June	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
July	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
August	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
September	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
October	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
November	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
December	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
Max Capacity (MW)																															
January	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
February	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
March	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
April	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
May	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
July	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
August	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
September	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
October	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
November	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
December	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	10,714	10,928	11,256	11,592	11,824	12,060	12,301	12,547	12,799	13,054	13,316	13,582	13,854	14,131	14,413	14,702	14,996	15,296	15,602	15,914	16,232	16,556	16,888	17,225	17,570	17,921	18,280	18,645	19,018	19,399	19,787
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Paddy's Run 12

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
February	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
March	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
April	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
May	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
June	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
July	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
August	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
September	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
October	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
November	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
December	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
Max Capacity (MW)																															
January	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
February	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
March	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
April	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
May	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
June	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
July	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
August	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
September	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
October	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
November	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
December	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	64,282	65,568	67,536	69,552	70,943	72,362	73,809	75,283	76,792	78,323	79,894	81,492	83,122	84,784	86,480	88,210	89,974	91,773	93,609	95,481	97,391	99,339	101,325	103,352	105,419	107,527	109,678	111,871	114,109	116,391	118,719
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Paddy's Run 13

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69
Heat Rate (Btu/kWh)																															
January	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
February	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
March	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
April	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
May	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
June	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
July	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
August	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
September	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
October	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
November	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
December	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
Max Capacity (MW)																															
January	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
February	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
March	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
April	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
May	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
June	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
July	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
August	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
September	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
October	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
November	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
December	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
Planned Outages (wks/yr)	15	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	57,847	59,004	60,774	62,594	63,846	65,123	66,425	67,752	69,110	70,487	71,902	73,340	74,807	76,303	77,829	79,385	80,973	82,592	84,244	85,929	87,648	89,401	91,189	93,013	94,873	96,770	98,706	100,680	102,693	104,747	106,842
Maintenance	150,237	153,242	157,579	163,012	167,265	171,633	176,115	180,723	185,461	190,318	195,313	199,219	203,203	207,267	211,413	215,641	219,954	224,353	228,840	233,417	238,085	242,847	247,704	252,658	257,711	262,865	268,122	273,485	278,955	284,534	290,224
Outage	102,941	105,000	108,150	111,395	113,623	115,895	118,212	120,574	122,991	125,442	127,959	130,519	133,129	135,792	138,507	141,278	144,103	146,985	149,925	152,923	155,982	159,101	162,283	165,529	168,840	172,217	175,661	179,174	182,758	186,413	190,141
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	106,620	108,752	112,097	114,679	118,119	121,663	125,310	129,071	132,947	136,938	141,044	143,865	146,742	149,677	152,670	155,724	158,838	162,015	165,255	168,560	171,931	175,370	178,877	182,455	186,104	189,826	193,623	197,495	201,445	205,474	209,583
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	6,000,000	0	0	0	0	0	0	7,279,525	0	0	0	0	0	0	8,831,914	0	0	0	0	0	0	10,715,357	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Trimble County 5

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	9	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	422,948	233,400	243,268	253,200	259,634	266,239	475,762	279,971	287,124	294,449	301,981	308,020	535,786	320,464	326,874	333,411
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104
Cap Ex																
Annual/Periodic		4,495,482	6,244,142	4,245,810	2,017,625	0	0	0	0	0	0					
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	340,079	346,881	603,382	360,895	368,113	375,475	382,985	390,644	679,506	406,426	414,555	422,846	431,303	439,929	765,234
Outage	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex															
Annual/Periodic															
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

Adjusted Data

Operations 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Trimble County 6

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	233,400	243,268	253,200	259,634	466,434	273,013	279,971	287,124	294,449	301,981	525,280	314,181	320,464	326,874	333,411	340,079	591,551	353,819	360,895	368,113	375,475	382,985	666,182	398,457	406,426	414,555	422,846	431,303	750,229	448,728
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic		0	0	0	0	0	0	0	0	0	0																				
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Trimble County 7

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	431,407	243,268	253,200	259,634	266,239	273,013	485,278	287,124	294,449	301,981	308,020	314,181	546,501	326,874	333,411	340,079	346,881	353,819	615,449	368,113	375,475	382,985	390,644	398,457	693,096	414,555	422,846	431,303	439,929	448,728
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic		0	0	306,603	0	0	0	0	0	0	0																				
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — **Trimble County 8**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	422,948	233,400	243,268	253,200	259,634	266,239	475,762	279,971	287,124	294,449	301,981	308,020	535,786	320,464	326,874	333,411	340,079	346,881	603,382	360,895	368,113	375,475	382,985	390,644	679,506	406,426	414,555	422,846	431,303	439,929	765,234
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic		0	0	306,603	0	0	0	0	0	0	0																				
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG
Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Trimble County 9

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	431,407	243,268	253,200	259,634	266,239	273,013	485,278	287,124	294,449	301,981	308,020	314,181	546,501	326,874	333,411	340,079	346,881	353,819	615,449	368,113	375,475	382,985	390,644	398,457	693,096	414,555	422,846	431,303	439,929	448,728
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic		0	0	0	0	0	0	0	0	0	0																				
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — **Trimble County 10**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	233,400	439,531	253,200	259,634	266,239	273,013	279,971	494,983	294,449	301,981	308,020	314,181	320,464	557,431	333,411	340,079	346,881	353,819	360,895	627,758	375,475	382,985	390,644	398,457	406,426	706,958	422,846	431,303	439,929	448,728
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic		0	0	0	0	0	0	10,502,000	10,890,000	17,340,000	0																				
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Zorn 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
February	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
March	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
April	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
May	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
June	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
July	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
August	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
September	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
October	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
November	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
December	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
Max Capacity (MW)																															
January	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
February	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
March	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
April	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
May	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
June	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
July	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
August	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
September	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
October	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
November	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
December	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	4,286	4,372	4,504	4,636	4,729	4,823	4,920	5,018	5,119	5,221	5,325	5,432	5,541	5,651	5,764	5,880	5,997	6,117	6,240	6,364	6,492	6,621	6,754	6,889	7,027	7,167	7,311	7,457	7,606	7,758	7,913
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	623,774	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Karavayev, Louanne
Subject: RE: Current Status and Data Needs
Date: 9/22/2011 4:44:50 PM

I will start looking at the data immediately.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

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E-mail: norman.lee@Ventyx.com

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From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Thursday, September 22, 2011 4:05 PM
To: Norman Lee
Cc: Eric Hughes; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

Please see attached an updated Unit Data spreadsheet. Everything has been updated and should be completed with the exception of Trimble County 5-10 Cap Ex. I am still working on those to make sure we get costs for outages correct. I'll update that and send the spreadsheet to you as soon as possible. Also, I wanted to talk to you about the expansion plan unit cap ex that we discussed yesterday afternoon. If you could give me a call I would appreciate it. Thank you,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563

f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Karavayev, Louanne
Sent: Tuesday, September 20, 2011 3:36 PM
To: 'Norman Lee'
Cc: 'Eric Hughes'; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

I just got your voicemail, I had been in a meeting and away from my desk. Unfortunately, I have an appointment this afternoon and need to leave now to make it. I will call you first thing in the morning to answer your questions. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Karavayev, Louanne
Sent: Friday, September 16, 2011 4:03 PM
To: 'Norman Lee'
Cc: Eric Hughes; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

I just left you a voicemail, sorry to have missed you. Please see below for an updated Unit Data spreadsheet which includes planned outage information, as we discussed yesterday. I'd like to talk through a couple of things with you, so if you could give me a call back this afternoon or Monday morning, that would be great. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 10:23 AM

To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

That will be fine.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

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From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, September 15, 2011 10:20 AM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Let's talk at 1:30. If it's OK, you can call us at my desk (502/627-4993).

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 9:43 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Stuart,

I am available all day today. Eric is available from 1:00 PM to around 2:45 PM and after 4pm. Let me know what you would like to do and I will set up a conference call.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, September 14, 2011 10:35 PM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Norm,

We just now wrapped up a deliverable that we've been working on day and night (literally) for the last two+ weeks. We'll give you a call tomorrow. We should be able to turn our full attention to this project.

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Wednesday, September 14, 2011 2:07 PM

To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: Current Status and Data Needs

Stuart and Lou Anne,

Eric and I have looked at the data you sent and have identified some areas that require additional information and/or clarification.

I have attached the workbook with an additional spreadsheet that identifies in red the information that is still missing. Basically almost all of the cost data and the historical degradation data are still missing. We understand that separating out some of the cost data is difficult, but it is extremely important to executing the analysis methodology properly.

In addition, there are some areas of clarification that need to be made.

1. Is the information you sent in Nominal or Real dollars?

2. There are two ways that units that would normally retire during the study period can be handled.

a. Allow the unit to retire at its normal date and be replaced with generic units,

b. Extend units to some arbitrary period at or past 2040.

The assumption made for a given unit will determine the method used to incorporate the hock stick function. In addition, if extension is the method chosen then the cost of life extension will be required.

It is my understanding that Bud Carter is out with heart problems. I wish him well. However, at the present time, we are not in a position to build the model that is required to complete the analysis. Without the above information we will not be able to meet the end of the month deadline. Let's have a conference call to go over each of these items and see how we can get the project back as close as possible to on track. Please let me know when would be a good time and I will arrange a conference call-in number.

Thanks

Norm

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

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More details coming soon. =

= Dates and location for European Mindshare coming soon. =

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From: Karavayev, Louanne
To: 'Norman Lee'
Subject: RE: Current Status and Data Needs
Date: 9/22/2011 4:53:20 PM

Norm,

I finished the Trimble County CTs now. Here is the updated version of the spreadsheet. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 22, 2011 4:45 PM
To: Karavayev, Louanne
Cc: Eric Hughes; Wilson, Stuart
Subject: RE: Current Status and Data Needs

I will start looking at the data immediately.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Thursday, September 22, 2011 4:05 PM
To: Norman Lee
Cc: Eric Hughes; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

Please see attached an updated Unit Data spreadsheet. Everything has been updated and should be completed with the exception of Trimble County 5-10 Cap Ex. I am still working on those to make sure we get costs for outages correct. I'll update that and send the spreadsheet to you as soon as possible. Also, I wanted to talk to you about the expansion plan unit cap ex that we discussed yesterday afternoon. If you could give me a call I would appreciate it. Thank you,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Karavayev, Louanne
Sent: Tuesday, September 20, 2011 3:36 PM
To: 'Norman Lee'
Cc: 'Eric Hughes'; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

I just got your voicemail, I had been in a meeting and away from my desk. Unfortunately, I have an appointment this afternoon and need to leave now to make it. I will call you first thing in the morning to answer your questions. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Karavayev, Louanne
Sent: Friday, September 16, 2011 4:03 PM
To: 'Norman Lee'
Cc: Eric Hughes; Wilson, Stuart
Subject: RE: Current Status and Data Needs

Norm,

I just left you a voicemail, sorry to have missed you. Please see below for an updated Unit Data spreadsheet which includes planned outage information, as we discussed yesterday. I'd like to talk through a couple of things with you, so if you could give me a call back this afternoon or Monday morning, that would be great. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 10:23 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

That will be fine.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, September 15, 2011 10:20 AM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Let's talk at 1:30. If it's OK, you can call us at my desk (502/627-4993).

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, September 15, 2011 9:43 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Stuart,

I am available all day today. Eric is available from 1:00 PM to around 2:45 PM and after 4pm. Let me know what you would like to do and I will set up a conference call.

Thanks

Norm

Norman R. Lee Jr.

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Office:770-779-2816

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E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, September 14, 2011 10:35 PM
To: Norman Lee; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Current Status and Data Needs

Norm,

We just now wrapped up a deliverable that we've been working on day and night (literally) for the last two+ weeks. We'll give you a call tomorrow. We should be able to turn our full attention to this project.

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Wednesday, September 14, 2011 2:07 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: Current Status and Data Needs

Stuart and Lou Anne,

Eric and I have looked at the data you sent and have identified some areas that require additional information and/or clarification.

I have attached the workbook with an additional spreadsheet that identifies in red the information that is still missing. Basically almost all of the cost data and the historical degradation data are still missing. We understand that separating out some of the cost data is difficult, but it is extremely important to executing the analysis methodology properly.

In addition, there are some areas of clarification that need to be made.

1. Is the information you sent in Nominal or Real dollars?

2. There are two ways that units that would normally retire during the study period can be handled.

a. Allow the unit to retire at its normal date and be replaced with generic units,

b. Extend units to some arbitrary period at or past 2040.

The assumption made for a given unit will determine the method used to incorporate the hock stick function. In addition, if extension is the method chosen then the cost of life extension will be required.

It is my understanding that Bud Carter is out with heart problems. I wish him well. However, at the present time, we are not in a position to build the model that is required to complete the analysis. Without the above information we will not be able to meet the end of the month deadline. Let's have a conference call to go over each of these items and see how we can get the project back as close as possible to on track. Please let me know when would be a good time and I will arrange a conference call-in number.

Thanks

Norm

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Existing Data

	BR1	BR2	BR3	BR5	BR6	BR7	BR8	BR9	BR10	BR11	CR11	GH1	GH2	HAF	MC1	MC2	MC3	PR11	PR12	PR13	TC5	TC6	TC7	TC8	TC9	TC10	ZN1
Operations																											
EUOR (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heat Rate (Btu/kWh)																											
January	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
February	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
March	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
April	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
June	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
July	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
August	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
September	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
October	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
November	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
December	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Max Capacity (MW)																											
January	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
February	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
March	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
April	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
June	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
July	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
August	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
September	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
October	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
November	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
December	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Planned Outages (wks/yr)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Emissions (lb/mmBtu)																											
CO2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NOX	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SO2 Removal Rate (%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cost Data																											
Variable O&M																											
Consumables	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ash handling	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fixed O&M ($)																											
Operations	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Outage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
New Controls	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Admin cost																											
Property taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allocated company overhead	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cap Ex																											
Annual/Periodic	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One time	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
(i.e. bag house, etc.)																											
O&M Escalation Rate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Capital Escalation Rate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Existing Data Brown 1

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate (Btu/kWh)																															
January	11,006	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
February	11,006	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
March	11,056	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
April	11,056	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
May	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
June	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
July	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
August	11,106	11,106	11,106	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211	11,211
September	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
October	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
November	11,056	11,056	11,056	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160
December	11,006	11,006	11,006	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110	11,110
Max Capacity (MW)																															
January	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
February	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
March	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
April	106	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
May	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
June	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
July	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
August	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
September	106	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
October	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
November	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
December	107	107	107	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
Planned Outages (wks/yr)	2	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518
HG	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.3622	0.6511	0.6601	0.8675	10.5398	10.7506	10.9656	11.1849	11.4086	11.6368	11.8695	12.1069	12.3491	12.5960	12.8480	13.1049	13.3670	13.6344	13.9070	14.1852	14.4689	14.7583	15.0534	15.3545	15.6616	15.9748	16.2943	16.6202	16.9526	17.2917	17.6375
Ash handling	0.5453	0.5562	0.5248	0.6391	0.6519	0.6649	0.6782	0.6918	0.7056	0.7197	0.7341	0.7488	0.7638	0.7791	0.7946	0.8105	0.8267	0.8433	0.8601	0.8773	0.8949	0.9128	0.9310	0.9497	0.9687	0.9880	1.0078	1.0279	1.0485	1.0695	1.0909
Fixed O&M ($)																															
Operations	930,170	948,773	984,944	1,056,886	1,085,361	1,114,626	1,144,681	1,175,599	1,207,412	1,240,056	1,273,627	1,299,100	1,325,082	1,351,583	1,378,615	1,406,187	1,434,311	1,462,997	1,492,257	1,522,103	1,552,545	1,583,595	1,615,267	1,647,573	1,680,524	1,714,135	1,748,417	1,783,386	1,819,053	1,855,434	1,892,543
Maintenance	1,474,523	1,659,478	1,375,520	1,817,576	1,431,091	1,796,272	1,488,907	1,868,842	1,549,059	1,944,343	2,087,823	2,022,894	1,676,751	2,104,619	1,744,492	2,189,646	1,814,970	2,398,252	1,888,294	2,370,143	1,964,581	2,465,897	2,043,950	2,565,519	2,754,838	2,669,166	2,212,438	2,777,000	2,301,820	2,889,191	2,394,814
Outage	564,028	716,029	443,280	4,572,618	461,189	775,053	479,821	806,365	499,205	838,942	5,252,500	872,836	540,356	908,098	562,186	944,785	584,899	6,033,472	608,528	1,022,666	633,113	1,063,982	658,691	1,106,967	6,930,563	1,151,688	712,988	1,198,216	741,793	1,246,624	771,761
New Controls	0	100,212	100,877	368,381	602,431	614,663	627,143	639,872	652,888	666,125	679,686	693,280	707,145	721,288	735,714	750,428	765,437	780,746	796,361	812,288	828,534	845,104	862,006	879,246	896,831	914,768	933,063	951,725	970,759	990,174	1,009,978
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	2,040,875	2,081,693	2,156,620	2,283,283	2,351,781	2,422,335	2,494,943	2,569,834	2,647,009	2,726,468	2,808,209	2,864,373	2,921,661	2,980,094	3,039,696	3,100,490	3,162,500	3,225,750	3,290,265	3,356,070	3,423,191	3,491,655	3,561,488	3,632,718	3,705,372	3,779,480	3,855,069	3,932,171	4,010,814	4,091,031	4,172,851
Cap Ex																															
Annual/Periodic	896,356	1,204,232	656,558	9,378,606	693,840	1,344,877	733,239	1,421,245	774,875	1,501,949	#########	1,587,235	865,375	1,677,365	914,514	1,772,612	966,444	#########	1,021,322	1,979,640	1,079,317	2,092,052	1,140,605	2,210,847	#########	2,336,388	1,273,819	2,469,057	1,346,152	2,609,260	1,422,592
One time	2,536,274	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data

Brown 2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate (Btu/kWh)																
January	10,299	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
February	10,299	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
March	10,349	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
April	10,349	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
May	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
June	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
July	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
August	10,399	10,399	10,399	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
September	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
October	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
November	10,349	10,349	10,349	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
December	10,299	10,299	10,299	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
Max Capacity (MW)																
January	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166
February	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166
March	168	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166
April	166	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164
May	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
June	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
July	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
August	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
September	166	166	166	164	164	164	164	164	164	164	164	164	164	164	164	164
October	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166
November	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166
December	168	168	168	166	166	166	166	166	166	166	166	166	166	166	166	166
Planned Outages (wks/yr)	5	1	3	4	1	MO	1	3	1	3	1	3	MO	1	3	1
Emissions (lb/mmBtu)																
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346
HG	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																
Variable O&M																
Consumables	0.3343	0.6116	0.6200	0.8260	8.5749	8.7464	8.9213	9.0998	9.2817	9.4674	9.6567	9.8499	10.0469	10.2478	10.4528	10.6618
Ash handling	0.4663	0.4756	0.4758	0.4889	0.4987	0.5086	0.5188	0.5292	0.5398	0.5506	0.5616	0.5728	0.5843	0.5959	0.6079	0.6200
Fixed O&M ($)																
Operations	1,538,004	1,568,764	1,628,571	1,747,524	1,794,607	1,842,996	1,892,691	1,943,812	1,996,414	2,050,389	2,105,899	2,148,017	2,190,977	2,234,796	2,279,492	2,325,082
Maintenance	2,286,929	2,332,667	2,455,248	2,257,102	2,312,893	2,370,119	2,428,781	2,488,985	2,550,850	2,614,137	2,679,204	2,732,788	2,787,444	2,843,193	2,900,057	2,958,058
Outage	489,190	485,073	646,700	519,133	529,515	4,701,701	535,560	714,009	557,197	742,855	579,707	772,866	5,400,777	615,190	820,172	640,044
New Controls	0	165,697	166,797	523,501	731,935	746,877	762,122	777,675	793,587	809,761	826,345	842,871	859,729	876,923	894,462	912,351
Admin cost																
Property taxes																
Insurance																
Allocated company ove	3,374,516	3,442,007	3,565,897	3,775,329	3,888,589	4,005,246	4,125,301	4,249,132	4,376,738	4,508,120	4,643,277	4,736,142	4,830,865	4,927,482	5,026,032	5,126,553
Cap Ex																
Annual/Periodic	103,831	98,629	379,114	112,800	0	#########	113,233	435,246	119,662	459,962	126,457	486,080	#########	137,380	528,065	145,181
One time	2,688,073	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Heat Rate (Btu/kWh)															
January	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
February	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
March	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
April	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
May	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
June	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
July	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
August	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524	10,524
September	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
October	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
November	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474	10,474
December	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423	10,423
Max Capacity (MW)															
January	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
February	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
March	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
April	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
May	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
June	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
July	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
August	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
September	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
October	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
November	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
December	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
Planned Outages (wks/yr)	3	1	3	MO	1	3	1	3	1	3	MO	1	3	1	3
Emissions (lb/mmBtu)															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346
HG	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data															
Variable O&M															
Consumables	10.8750	11.0925	11.3144	11.5407	11.7715	12.0069	12.2471	12.4920	12.7419	12.9967	13.2566	13.5218	13.7922	14.0680	14.3494
Ash handling	0.6324	0.6451	0.6580	0.6711	0.6845	0.6982	0.7122	0.7264	0.7410	0.7558	0.7709	0.7863	0.8021	0.8181	0.8345
Fixed O&M ($)															
Operations	2,371,584	2,419,016	2,467,396	2,516,744	2,567,079	2,618,420	2,670,789	2,724,204	2,778,688	2,834,262	2,890,947	2,948,766	3,007,742	3,067,897	3,129,255
Maintenance	3,017,219	3,077,564	3,139,115	3,201,897	3,265,935	3,331,254	3,397,879	3,465,837	3,535,153	3,605,856	3,677,973	3,751,533	3,826,564	3,903,095	3,981,157
Outage	853,307	665,901	887,781	6,203,795	706,660	942,120	735,209	980,181	764,911	1,019,781	7,126,211	811,730	1,082,199	844,524	1,125,920
New Controls	930,598	949,210	968,194	987,558	1,007,309	1,027,456	1,048,005	1,068,965	1,090,344	1,112,151	1,134,394	1,157,082	1,180,223	1,203,828	1,227,904
Admin cost															
Property taxes															
Insurance															
Allocated company ove	5,229,084	5,333,665	5,440,339	5,549,145	5,660,128	5,773,331	5,888,797	6,006,573	6,126,705	6,249,239	6,374,224	6,501,708	6,631,742	6,764,377	6,899,665
Cap Ex															
Annual/Periodic	558,050	153,425	589,739	#########	166,677	640,677	176,141	677,057	186,144	715,503	#########	202,221	777,304	213,704	821,442
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Brown 3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Heat Rate (Btu/kWh)																															
January	11,002	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
February	11,002	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
March	11,052	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
April	11,052	11,052	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
May	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
June	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
July	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
August	11,102	11,247	11,247	11,247	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385	11,385
September	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
October	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
November	11,052	11,196	11,196	11,196	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334	11,334
December	11,002	11,145	11,145	11,145	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283	11,283
Max Capacity (MW)																															
January	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
February	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
March	416	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
April	412	412	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
May	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
June	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
July	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
August	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
September	412	410	410	410	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405	405
October	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
November	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
December	416	414	414	414	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
Planned Outages (wks/yr)	3	MO	1	3	4	3	1	3	MO	3	1	3	1	3	1	MO	1	3	1	3	1	3	MO	3	1	3	1	3	1	MO	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.327	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030
HG	2.00E-06	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.3365	0.6350	2.3431	2.5612	2.6124	5.6677	5.7811	5.8967	6.0146	6.1349	6.2576	6.3828	6.5104	6.6406	6.7734	6.9089	7.0471	7.1880	7.3318	7.4784	7.6280	7.7805	7.9361	8.0949	8.2568	8.4219	8.5903	8.7621	8.9374	9.1161	9.2985
Ash handling	0.6105	0.6227	0.5568	0.5746	0.5861	0.5978	0.6098	0.6220	0.6344	0.6471	0.6600	0.6732	0.6867	0.7004	0.7144	0.7287	0.7433	0.7582	0.7733	0.7888	0.8046	0.8207	0.8371	0.8538	0.8709	0.8883	0.9061	0.9242	0.9427	0.9615	0.9808
Fixed O&M ($)																															
Operations	3,831,194	3,907,818	4,056,801	4,353,113	4,470,399	########	4,714,726	4,842,071	4,973,103	5,107,557	5,245,831	5,350,748	5,457,763	5,566,918	5,678,256	5,791,822	5,907,658	6,025,811	6,146,327	6,269,254	6,394,639	6,522,532	6,652,982	6,786,042	6,921,763	7,060,198	7,201,402	7,345,430	7,492,339	7,642,185	7,795,029
Maintenance	6,681,801	7,101,728	6,502,545	7,090,780	7,259,123	########	7,038,564	7,675,289	8,157,654	7,985,370	7,618,768	8,307,979	7,926,566	8,643,622	8,246,799	9,370,580	8,579,970	9,356,134	8,926,601	9,734,122	9,287,235	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Outage	1,016,365	6,360,398	400,610	1,078,575	1,100,146	########	433,633	1,167,484	7,306,098	1,214,650	469,378	1,263,722	488,341	1,314,777	508,070	8,392,410	528,596	1,423,156	549,952	1,480,652	572,170	1,540,470	9,640,241	1,602,705	619,335	1,667,455	644,356	1,734,820	670,388	#########	697,472
New Controls	0	545,755	555,485	877,360	1,169,840	########	1,422,412	1,451,644	1,481,547	1,511,964	1,543,140	1,574,003	1,605,483	1,637,593	1,670,345	1,703,752	1,737,827	1,772,583	1,808,035	1,844,195	1,881,079	1,918,701	1,957,075	1,996,217	2,036,141	2,076,864	2,118,401	2,160,769	2,203,984	2,248,064	2,293,025
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	8,405,981	8,574,100	8,882,713	9,404,411	9,686,544	########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Cap Ex																															
Annual/Periodic	3,221,678	#########	1,331,132	3,499,947	0	########	1,486,598	3,908,714	#########	4,130,666	1,660,221	4,365,222	1,754,495	4,613,097	1,854,122	#########	1,959,407	5,151,871	2,070,670	5,444,415	2,188,251	5,753,571	#########	6,080,282	2,443,822	6,425,544	2,582,592	6,790,413	2,729,242	#########	2,884,219
One time	0	2,176,274	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data **Brown 5**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
Heat Rate (Btu/kWh)																															
January	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
February	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
March	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
April	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
May	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
June	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
July	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
August	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
September	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005	12,005
October	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
November	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
December	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927	11,927
Max Capacity (MW)																															
January	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
February	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
March	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
April	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
May	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
June	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
July	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
August	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
September	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
October	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
November	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
December	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
Planned Outages (wks/yr)	0	2	0	2	0	0	0	0	0	8	0	2	0	2	0	0	0	0	0	8	0	2	0	2	0	0	0	0	0	8	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	80,239	81,844	79,309	91,357	93,525	95,745	98,020	100,351	102,745	105,191	107,704	109,858	112,055	114,297	116,582	118,914	121,292	123,718	126,193	128,716	131,291	133,917	136,595	139,327	142,113	144,956	147,855	150,812	153,828	156,905	160,043
Maintenance	246,467	251,397	297,062	272,764	279,173	285,738	292,460	299,348	306,420	313,641	321,063	327,484	334,034	340,715	347,529	354,480	361,569	368,801	376,177	383,700	391,374	399,202	407,186	415,330	423,636	432,109	440,751	449,566	458,557	467,728	477,083
Outage	0	0	0	0	0	0	0	0	0	671,193	0	0	0	0	0	0	0	0	0	818,180	0	0	0	0	0	0	0	0	0	997,357	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	170,689	174,103	178,128	183,546	189,052	194,724	200,561	206,581	212,785	219,172	225,743	230,258	234,863	239,560	244,352	249,239	254,223	259,308	264,494	269,784	275,180	280,683	286,297	292,023	297,863	303,820	309,897	316,095	322,417	328,865	335,442
Cap Ex																															
Annual/Periodic	0	55,257	432,467	0	0	0	0	0	0	30,428,248	0	0	0	0	0	0	0	0	0	40,105,884	0	0	0	0	0	0	0	0	0	52,861,471	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Brown 6

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
Heat Rate (Btu/kWh)																															
January	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
February	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
March	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
April	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
May	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
June	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
July	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
August	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
September	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
October	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
November	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
December	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
Max Capacity (MW)																															
January	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
February	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
March	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
April	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
May	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
June	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
July	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
August	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
September	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
October	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
November	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
December	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
Planned Outages (wks/yr)	1	1	1	2	1	1	8	1	1	2	1	1	1	2	1	1	8	1	1	2	1	1	1	2	1	1	8	1	1	2	1
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	87,837	89,594	85,262	87,737	89,940	92,199	94,517	96,896	99,342	101,845	104,419	106,507	108,638	110,810	113,026	115,287	117,593	119,945	122,344	124,790	127,286	129,832	132,429	135,077	137,779	140,534	143,345	146,212	149,136	152,119	155,161
Maintenance	274,176	279,660	337,204	302,661	309,968	317,460	325,135	333,007	341,092	349,357	357,853	365,010	372,310	379,756	387,351	395,098	403,000	411,060	419,281	427,667	436,220	444,945	453,844	462,921	472,179	481,623	491,255	501,080	511,102	521,324	531,750
Outage	55,392	56,500	77,000	93,000	94,860	96,757	632,480	100,663	102,681	104,727	106,829	108,966	111,145	113,368	115,635	117,948	770,990	122,713	125,167	127,671	130,224	132,829	135,485	138,195	140,959	143,778	939,832	149,587	152,578	155,630	158,742
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	224,668	229,161	234,459	241,590	248,838	256,303	263,986	271,910	280,076	288,483	297,132	303,075	309,136	315,319	321,625	328,058	334,619	341,311	348,137	355,100	362,202	369,446	376,835	384,372	392,059	399,900	407,898	416,056	424,378	432,865	441,522
Cap Ex																															
Annual/Periodic	0	72,732	72,677	0	0	0	28,009,000	0	0	0	0	0	0	0	0	0	36,917,200	0	0	0	0	0	0	0	0	0	48,658,632	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data **Brown 7**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83	6.83
Heat Rate (Btu/kWh)																															
January	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
February	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
March	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
April	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
May	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
June	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
July	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
August	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
September	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554	10,554
October	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
November	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
December	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176	10,176
Max Capacity (MW)																															
January	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
February	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
March	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
April	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
May	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
June	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
July	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
August	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146
September	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
October	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
November	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
December	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
Planned Outages (wks/yr)	2	1	1	2	1	2	1	8	1	1	2	1	1	2	1	2	1	8	1	1	2	1	1	2	1	2	1	8	1	1	2
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	87,837	89,594	85,262	87,737	89,940	92,199	94,517	96,896	99,342	101,845	104,419	106,507	108,638	110,810	113,026	115,287	117,593	119,945	122,344	124,790	127,286	129,832	132,429	135,077	137,779	140,534	143,345	146,212	149,136	152,119	155,161
Maintenance	274,176	279,660	337,204	302,661	309,968	317,460	325,135	333,007	341,092	349,357	357,853	365,010	372,310	379,756	387,351	395,098	403,000	411,060	419,281	427,667	436,220	444,945	453,844	462,921	472,179	481,623	491,255	501,080	511,102	521,324	531,750
Outage	40,686	41,500	47,000	48,000	48,960	49,939	50,938	645,130	52,997	54,053	55,138	56,240	57,365	58,512	59,683	60,876	62,094	786,409	64,602	65,895	67,212	68,557	69,928	71,326	72,753	74,208	75,692	958,629	78,750	80,325	81,932
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	224,668	229,161	234,459	241,590	248,838	256,303	263,986	271,910	280,076	288,483	297,132	303,075	309,136	315,319	321,625	328,058	334,619	341,311	348,137	355,100	362,202	369,446	376,835	384,372	392,059	399,900	407,898	416,056	424,378	432,865	441,522
Cap Ex																															
Annual/Periodic	0	98,013	72,677	0	0	200,000	824,000	34,069,000	259,280	1,198,400	1,021,040	0	0	0	0	0	0	44,904,569	0	0	0	0	0	0	0	0	0	59,186,367	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Brown 8

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Operations															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)															
January	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
February	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
March	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
April	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
May	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
June	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
July	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
August	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
September	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
October	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
November	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
December	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
Max Capacity (MW)															
January	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
February	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
March	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
April	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
May	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
October	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
November	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
December	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Planned Outages (wks/yr)	0	1	2	0	2	0	0	0	2	0	8	0	1	2	0
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760
Maintenance	223,295	227,761	236,710	247,120	252,926	258,873	264,963	271,204	277,611	284,153	290,878	296,695	302,629	308,682	314,855
Outage	0	52,000	60,000	0	0	0	0	0	0	0	684,617	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378
Cap Ex															
Annual/Periodic	0	843,035	506,959	1,999,863	0	0	0	0	0	0	31,280,239	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															
O&M Escalation Rate	2.0%														
Capital Escalation Rate	2.8%														

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																
January	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
February	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
March	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
April	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
May	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
June	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
July	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
August	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
September	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
October	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
November	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
December	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
Max Capacity (MW)																
January	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
February	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
March	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
April	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
May	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
October	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
November	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
December	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Planned Outages (wks/yr)	2	0	0	0	2	0	8	0	1	2	0	2	0	0	0	2
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	90,536	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	321,153	327,576	334,127	340,810	347,626	354,578	361,670	368,903	376,281	383,807	391,483	399,313	407,299	415,445	423,754	432,229
Outage	0	0	0	0	0	0	851,235	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	225,806	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex																
Annual/Periodic	0	0	0	0	0	0	42,383,257	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Brown 9**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)																
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	2	1	8	0	2	0	0	0	2	0	2	1	8	0	2	0
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760	90,536
Maintenance	262,511	267,761	278,710	290,380	297,051	303,881	310,871	318,029	325,375	332,868	340,571	347,382	354,330	361,416	368,645	376,017
Outage	0	0	300,000	0	0	0	0	0	0	0	0	0	365,698	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378	225,806
Cap Ex																
Annual/Periodic	0	2,200,946	10,210,000	0	0	2,300,000	9,476,000	0	2,981,720	13,781,600	11,741,960	0	33,056,456	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)															
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)															
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	0	0	2	0	2	1	8	0	2	0	0	0	2	0	2
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	383,538	391,209	399,033	407,013	415,154	423,457	431,926	440,564	449,376	458,363	467,530	476,881	486,419	496,147	506,070
Outage	0	0	0	0	0	0	445,784	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex															
Annual/Periodic	0	0	0	0	0	0	43,569,988	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

O&M Escalation Rate 2.0%
Capital Escalation Rate 2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data	Brown 10																														
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
February	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
March	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
April	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
May	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
June	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
July	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
August	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
September	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462	12,462
October	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
November	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
December	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760
Max Capacity (MW)																															
January	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
February	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
March	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
April	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
May	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
October	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
November	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
December	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138	138
Planned Outages (wks/yr)	0	2	0	8	0	2	0	0	2	0	0	2	0	8	0	2	0	0	2	0	0	2	0	8	0	2	0	0	2	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760	90,536	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	223,295	227,761	236,710	247,120	252,926	258,873	264,963	271,204	277,611	284,153	290,878	296,695	302,629	308,682	314,855	321,153	327,576	334,127	340,810	347,626	354,578	361,670	368,903	376,281	383,807	391,483	399,313	407,299	415,445	423,754	432,229
Outage	0	0	0	596,000	0	0	0	0	0	0	0	0	0	726,521	0	0	0	0	0	0	0	0	0	885,625	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378	225,806	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex																															
Annual/Periodic	0	636,170	3,021,063	13,388,143	0	1,324,000	3,104,000	0	0	0	0	0	0	33,982,037	0	0	0	0	0	0	0	0	0	44,789,947	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Brown 11

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81	7.81
Heat Rate (Btu/kWh)																															
January	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
February	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
March	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
April	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
May	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
June	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
July	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
August	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
September	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627	12,627
October	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
November	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
December	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801	11,801
Max Capacity (MW)																															
January	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
February	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
March	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
April	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
May	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
June	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
July	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
August	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
September	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
October	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
November	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
December	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
Planned Outages (wks/yr)	0	2	0	0	0	8	0	0	0	0	0	2	0	0	0	8	0	0	0	0	0	2	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137	0.137
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	60,459	61,669	58,687	69,207	70,900	72,635	74,414	76,238	78,113	80,030	82,001	83,641	85,314	87,020	88,760	90,536	92,346	94,193	96,077	97,999	99,959	101,958	103,997	106,077	108,198	110,362	112,570	114,821	117,118	119,460	121,849
Maintenance	223,295	227,761	236,710	247,120	252,926	258,873	264,963	271,204	277,611	284,153	290,878	296,695	302,629	308,682	314,855	321,153	327,576	334,127	340,810	347,626	354,578	361,670	368,903	376,281	383,807	391,483	399,313	407,299	415,445	423,754	432,229
Outage	49,020	50,000	55,000	56,650	57,783	620,078	60,117	61,318	62,547	63,794	65,074	66,375	67,703	69,057	70,438	755,872	73,284	74,749	76,244	77,769	79,325	80,911	82,529	84,180	85,864	921,404	89,332	91,119	92,941	94,800	96,696
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	154,642	157,734	161,381	166,289	171,278	176,416	181,704	187,159	192,779	198,566	204,519	208,610	212,782	217,038	221,378	225,806	230,322	234,928	239,627	244,420	249,308	254,294	259,380	264,568	269,859	275,256	280,761	286,377	292,104	297,946	303,905
Cap Ex																															
Annual/Periodic	0	636,170	231,409	0	0	0	0	0	0	0	0	0	0	0	0	35,911,673	0	0	0	0	0	0	0	0	0	47,333,300	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Cane Run 11

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
February	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
March	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
April	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
May	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
June	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
July	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
August	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
September	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
October	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
November	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
December	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117	16,117
Max Capacity (MW)																															
January	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
February	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
March	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
April	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
May	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
June	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
July	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
August	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
September	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
October	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
November	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
December	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	17,137	17,480	18,008	18,552	18,923	19,302	19,687	20,081	20,483	20,891	21,311	21,737	22,172	22,615	23,067	23,529	23,999	24,479	24,969	25,468	25,978	26,497	27,027	27,568	28,119	28,681	29,255	29,840	30,437	31,046	31,667
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Ghent 1

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,317	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
February	10,317	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
March	10,583	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
April	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
May	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
June	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
July	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
August	10,627	10,627	10,627	10,627	10,761	10,761	10,761	10,761	10,761	10,761	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439	10,439
September	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
October	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
November	10,583	10,583	10,583	10,583	10,717	10,717	10,717	10,717	10,717	10,717	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395	10,395
December	10,317	10,317	10,317	10,317	10,447	10,447	10,447	10,447	10,447	10,447	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134	10,134
Max Capacity (MW)																															
January	481	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
February	481	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
March	480	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
April	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
May	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
June	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
July	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
August	479	479	479	479	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473
September	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
October	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
November	480	480	480	480	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474	474
December	481	481	481	481	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
Planned Outages (wks/yr)	2	3	1	3	MO	4	1	4	1	3	1	MO	1	3	1	3	1	3	MO	1	3	1	3	1	3	MO	1	3	1	3	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046
HG	2.00E-06	2.00E-06	2.00E-06	2.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	1.6200	2.0564	2.4335	2.9382	2.9970	6.0701	6.1915	6.3153	6.4416	6.5705	6.7019	6.8359	6.9726	7.1121	7.2543	7.3994	7.5474	7.6984	7.8523	8.0094	8.1696	8.3329	8.4996	8.6696	8.8430	9.0198	9.2002	9.3843	9.5719	9.7634	9.9586
Ash handling	0.1455	0.1484	0.1513	0.1866	0.1903	0.1941	0.1980	0.2020	0.2060	0.2101	0.2143	0.2186	0.2230	0.2275	0.2320	0.2366	0.2414	0.2462	0.2511	0.2562	0.2613	0.2665	0.2718	0.2773	0.2828	0.2885	0.2942	0.3001	0.3061	0.3122	0.3185
Fixed O&M ($)																															
Operations	3,234,264	3,298,949	3,469,775	3,652,132	3,750,514	3,851,623	3,955,461	4,062,279	4,172,191	4,284,972	4,400,958	4,488,977	4,578,757	4,670,332	4,763,738	4,859,013	4,956,193	5,055,317	5,156,424	5,259,552	5,364,743	5,472,038	5,581,479	5,693,108	5,806,970	5,923,110	6,041,572	6,162,403	6,285,652	6,411,365	6,539,592
Maintenance	5,784,575	5,900,267	6,195,125	6,432,687	6,582,744	6,736,444	6,893,787	7,054,987	7,220,474	7,389,389	7,563,020	7,714,280	7,868,566	8,025,937	8,186,456	8,350,185	8,517,188	8,687,532	8,861,283	9,038,509	9,219,279	9,403,664	9,591,738	9,783,572	9,979,244	#########	#########	#########	#########	#########	#########
Outage	2,730,491	3,433,300	2,179,640	3,490,130	8,714,933	3,631,131	2,359,312	3,777,717	2,454,629	4,022,658	2,553,796	#########	2,656,969	4,354,255	2,764,311	4,530,166	2,875,989	4,713,185	#########	3,052,022	5,001,670	3,175,324	5,203,737	3,303,607	5,413,968	#########	3,505,814	5,745,346	3,647,449	5,977,458	3,794,806
New Controls	0	1,013,559	1,006,111	939,543	1,738,202	2,469,042	3,016,049	3,078,758	3,142,852	3,208,201	3,275,040	3,340,541	3,407,352	3,475,499	3,545,009	3,615,909	3,688,227	3,761,992	3,837,231	3,913,976	3,992,256	4,072,101	4,153,543	4,236,614	4,321,346	4,407,773	4,495,928	4,585,847	4,677,564	4,771,115	4,866,537
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	7,227,175	7,371,719	7,711,907	8,193,285	8,426,465	8,666,388	8,913,053	9,167,156	9,428,821	9,697,795	9,974,458	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Cap Ex																															
Annual/Periodic	3,751,675	4,072,289	3,743,106	#########	#########	3,926,305	4,180,273	5,485,013	4,417,645	5,079,062	4,668,497	#########	4,933,593	5,672,258	5,213,742	5,994,351	5,509,799	6,334,734	#########	5,985,702	6,881,890	6,325,595	7,272,672	6,684,787	7,685,643	#########	7,262,179	8,349,482	7,674,554	8,823,599	8,110,346
One time	1,990,017	#########	#########	#########	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data Ghent 2

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,351	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
February	10,351	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
March	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
April	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
May	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
June	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
July	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
August	10,146	10,146	10,146	10,146	10,146	10,334	10,334	10,334	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024	10,024
September	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
October	10,478	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
November	10,478	10,478	10,478	10,478	10,672	10,672	10,672	10,672	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352	10,352
December	10,351	10,351	10,351	10,351	10,543	10,543	10,543	10,543	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227	10,227
Max Capacity (MW)																															
January	477	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
February	477	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
March	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
April	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
May	486	486	486	469	494	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
June	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
July	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
August	495	495	495	460	495	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
September	486	486	486	469	486	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
October	486	486	486	469	486	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
November	486	486	486	503	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
December	477	477	477	501	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468	468
Planned Outages (wks/yr)	2 MO		1	1 MO		4	2	1 MO		1	3	1	3	1	3 MO		1	3	1	3	1	3 MO		1	3	1	3	1	3 MO		1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268	0.268
HG	4.00E-06	4.00E-06	4.00E-06	4.00E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Cost Data																															
Variable O&M																															
Consumables	0.4668	0.8161	1.1015	1.4277	1.4563	3.8581	3.9353	4.0140	4.0942	4.1761	4.2597	4.3448	4.4317	4.5204	4.6108	4.7030	4.7971	4.8930	4.9909	5.0907	5.1925	5.2963	5.4023	5.5103	5.6205	5.7329	5.8476	5.9645	6.0838	6.2055	6.3296
Ash handling	0.1693	0.1727	0.1498	0.1603	0.1635	0.1668	0.1701	0.1735	0.1770	0.1805	0.1841	0.1878	0.1916	0.1954	0.1993	0.2033	0.2074	0.2115	0.2157	0.2201	0.2245	0.2290	0.2335	0.2382	0.2430	0.2478	0.2528	0.2578	0.2630	0.2683	0.2736
Fixed O&M ($)																															
Operations	2,295,234	2,341,139	2,458,591	2,574,429	2,646,121	2,719,853	2,795,625	2,873,639	2,953,950	3,036,448	3,121,299	3,183,725	3,247,399	3,312,347	3,378,594	3,446,166	3,515,090	3,585,391	3,657,099	3,730,241	3,804,846	3,880,943	3,958,562	4,037,733	4,118,488	4,200,857	4,284,875	4,370,572	4,457,983	4,547,143	4,638,086
Maintenance	5,268,874	5,374,252	5,752,427	6,039,486	6,180,275	6,324,481	6,472,102	6,623,339	6,778,596	6,937,065	7,099,957	7,241,956	7,386,795	7,534,531	7,685,222	7,838,926	7,995,705	8,155,619	8,318,731	8,485,106	8,654,808	8,827,904	9,004,462	9,184,552	9,368,243	9,555,608	9,746,720	9,941,654	10,140,487	10,343,297	10,550,163
Outage	1,513,066	7,908,710	1,543,860	1,605,690	8,392,786	1,670,560	1,703,958	1,738,050	9,084,622	1,808,268	2,953,383	1,881,322	3,072,699	1,957,327	3,196,837	10,435,375	2,077,131	3,392,508	2,161,047	3,529,566	2,248,354	3,672,160	11,986,966	2,385,971	3,896,926	2,482,364	4,054,362	2,582,652	4,218,158	13,769,256	2,740,731
New Controls	0	0	0	0	575,989	1,778,893	2,319,163	2,365,546	2,412,858	2,461,115	2,510,336	2,560,543	2,611,754	2,663,989	2,717,269	2,771,614	2,827,046	2,883,587	2,941,259	3,000,084	3,060,086	3,121,288	3,183,713	3,247,388	3,312,335	3,378,582	3,446,154	3,515,077	3,585,378	3,657,086	3,730,228
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	6,390,358	6,518,165	6,616,488	7,012,749	7,210,934	7,414,821	7,624,410	7,840,279	8,062,552	8,290,983	8,525,939	8,696,458	8,870,387	9,047,795	9,228,751	9,413,326	9,601,592	9,793,624	9,989,497	10,189,286	10,393,072	10,600,934	10,812,952	11,029,211	11,249,796	11,474,791	11,704,287	11,938,373	12,177,141	12,420,683	12,669,097
Cap Ex																															
Annual/Periodic	1,270,962	15,083,285	2,324,576	2,383,369	16,386,088	7,008,861	1,500,000	2,661,728	18,299,859	2,812,871	4,630,201	2,972,598	4,893,122	3,141,394	5,170,973	22,202,380	3,412,728	5,617,611	3,606,516	5,936,601	3,811,309	6,273,705	26,937,131	4,140,507	6,815,590	4,375,621	7,202,606	4,624,086	7,611,599	32,681,587	5,023,487
One time	122,400	37,354,857	48,367,602	72,403,528	6,693,304	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															

O&M Escalation Rate 2.0%
Capital Escalation Rate 2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — **Haefling 1-3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
February	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
March	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
April	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
May	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
June	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
July	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
August	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
September	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
October	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
November	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
December	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Max Capacity (MW)																															
January	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
February	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
March	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
April	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
May	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
July	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
August	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
September	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
October	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
November	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
December	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	11,765	12,000	12,000	12,360	12,608	12,860	13,117	13,379	13,647	13,919	14,198	14,482	14,772	15,067	15,369	15,676	15,990	16,309	16,636	16,968	17,308	17,654	18,007	18,367	18,734	19,109	19,491	19,881	20,279	20,684	21,098
Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outage	88,235	90,000	93,000	96,000	97,920	99,878	101,875	103,910	105,994	108,106	110,275	112,481	114,730	117,025	119,365	121,753	124,188	126,672	129,205	131,789	134,425	137,113	139,856	142,653	145,506	148,416	151,384	154,412	157,500	160,650	163,863
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — **Mill Creek 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,004	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
February	10,004	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
March	10,182	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
April	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
May	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
June	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
July	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
August	10,319	10,319	10,319	10,319	10,423	10,423	10,423	10,423	10,423	10,423	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110	10,110
September	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
October	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
November	10,182	10,182	10,182	10,182	10,284	10,284	10,284	10,284	10,284	10,284	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976	9,976
December	10,004	10,004	10,004	10,004	10,104	10,104	10,104	10,104	10,104	10,104	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
Max Capacity (MW)																															
January	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
February	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
March	303	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
April	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
May	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
June	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
July	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
August	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
September	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
October	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
November	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
December	303	303	303	303	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Planned Outages (wks/yr)	2	2	MO	1	MO	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
HG	4.80E-06	4.80E-06	4.80E-06	4.80E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.5780	0.6007	0.6274	0.6570	0.6701	4.9693	5.0687	5.1701	5.2735	5.3789	5.4865	5.5962	5.7082	5.8223	5.9388	6.0575	6.1787	6.3023	6.4283	6.5569	6.6880	6.8218	6.9582	7.0974	7.2393	7.3841	7.5318	7.6824	7.8361	7.9928	8.1527
Ash handling	0.3000	0.3060	0.3575	0.3060	0.3121	0.3184	0.3247	0.3312	0.3379	0.3446	0.3515	0.3585	0.3657	0.3730	0.3805	0.3881	0.3959	0.4038	0.4118	0.4201	0.4285	0.4371	0.4458	0.4547	0.4638	0.4731	0.4825	0.4922	0.5020	0.5121	0.5223
Fixed O&M ($)																															
Operations	2,331,147	2,377,770	2,485,442	2,596,975	2,666,902	2,738,768	2,812,572	2,888,494	2,966,614	3,046,773	3,129,209	3,191,793	3,255,629	3,320,741	3,387,156	3,454,899	3,523,997	3,594,477	3,666,367	3,739,694	3,814,488	3,890,778	3,968,593	4,047,965	4,128,925	4,211,503	4,295,733	4,381,648	4,469,281	4,558,666	4,649,840
Maintenance	5,225,870	5,330,388	6,694,207	5,457,910	5,583,028	5,678,410	7,460,844	5,907,818	7,762,262	6,146,494	7,843,331	6,394,812	8,402,122	6,653,162	8,741,567	6,921,950	9,094,727	7,201,597	9,189,712	7,492,541	9,844,425	7,795,240	10,242,139	8,110,168	10,655,922	8,437,819	10,767,212	8,778,706	11,534,313	9,133,366	12,000,299
Outage	1,263,143	1,288,406	3,360,342	739,378	2,004,166	769,249	3,141,521	800,327	3,268,439	832,660	3,937,176	866,299	3,537,863	901,298	3,680,793	937,710	3,829,497	975,594	4,613,029	1,015,008	4,145,170	1,056,014	4,312,635	1,098,677	4,486,866	1,143,063	5,404,899	1,189,243	4,856,728	1,237,289	5,052,940
New Controls	0	44,484	46,604	47,839	274,547	468,294	501,438	535,245	569,732	604,901	640,782	653,598	666,670	680,003	693,603	707,475	721,625	736,057	750,778	765,794	781,110	796,732	812,667	828,920	845,498	862,408	879,657	897,250	915,195	933,499	952,169
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	5,477,248	5,586,793	6,116,777	5,862,973	6,030,097	6,202,062	6,378,857	6,560,997	6,748,557	6,941,369	7,139,692	7,282,485	7,428,135	7,576,698	7,728,232	7,882,796	8,040,452	8,201,261	8,365,287	8,532,592	8,703,244	8,877,309	9,054,855	9,235,952	9,420,671	9,609,085	9,801,266	9,997,292	10,197,238	10,401,182	10,609,206
Cap Ex																															
Annual/Periodic	671,206	690,000	10,460,000	4,640,000	7,350,000	4,903,478	14,566,649	5,181,917	15,393,802	5,476,167	13,045,977	5,787,125	########	6,115,742	########	6,463,018	19,199,540	6,830,014	16,271,273	7,217,849	21,441,900	7,627,708	22,659,457	8,060,839	23,946,152	8,518,566	20,293,943	9,002,284	26,742,881	9,513,470	28,261,449
One time	0	38,758,757	95,175,998	104,054,442	96,375,192	0	0	0	0	0																					
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

<u>Existing Data</u> **Mill Creek 2**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,145	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
February	10,145	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
March	10,614	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
April	10,614	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
May	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
June	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
July	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
August	10,421	10,421	10,421	10,421	10,561	10,561	10,561	10,561	10,561	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245	10,245
September	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
October	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
November	10,614	10,614	10,614	10,614	10,757	10,757	10,757	10,757	10,757	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434	10,434
December	10,145	10,145	10,145	10,145	10,282	10,282	10,282	10,282	10,282	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973	9,973
Max Capacity (MW)																															
January	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
February	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
March	299	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
April	301	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
May	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
June	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
July	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
August	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
September	301	301	301	301	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297	297
October	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
November	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
December	299	299	299	299	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295
Planned Outages (wks/yr)	1 MO		1	4 MO		4	1	4	1 MO		1	4	1	4	1	4	1 MO		1	4	1	4	1	4	1 MO		1	4	1	4	1
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
HG	4.80E-06	4.80E-06	4.80E-06	4.80E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	92	92	92	92	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	0.5916	0.6150	0.6423	0.6726	0.6861	5.1561	5.2592	5.3644	5.4717	5.5811	5.6928	5.8066	5.9227	6.0412	6.1620	6.2853	6.4110	6.5392	6.6700	6.8034	6.9394	7.0782	7.2198	7.3642	7.5115	7.6617	7.8149	7.9712	8.1307	8.2933	8.4591
Ash handling	0.3500	0.3570	0.3298	0.3906	0.3984	0.4064	0.4145	0.4228	0.4313	0.4399	0.4487	0.4577	0.4668	0.4762	0.4857	0.4954	0.5053	0.5154	0.5257	0.5362	0.5470	0.5579	0.5691	0.5805	0.5921	0.6039	0.6160	0.6283	0.6409	0.6537	0.6668
Fixed O&M ($)																															
Operations	2,315,759	2,362,075	2,469,036	2,579,833	2,649,299	2,720,690	2,794,007	2,869,428	2,947,033	3,026,662	3,108,554	3,170,725	3,234,140	3,298,822	3,364,799	3,432,095	3,500,737	3,570,751	3,642,166	3,715,010	3,789,310	3,865,096	3,942,398	4,021,246	4,101,671	4,183,704	4,267,378	4,352,726	4,439,781	4,528,576	4,619,148
Maintenance	5,185,610	6,181,027	5,395,109	6,949,623	7,104,469	7,230,387	5,839,839	7,522,495	6,075,769	7,242,058	6,321,230	8,142,591	6,576,608	8,471,551	6,842,302	8,813,802	7,118,731	8,485,225	7,406,328	9,540,343	7,705,544	9,925,772	8,016,848	#########	8,340,729	9,941,794	8,677,694	#########	9,028,273	#########	9,393,015
Outage	714,072	5,605,863	742,920	2,974,507	3,033,997	3,094,677	804,161	3,219,702	836,649	6,568,162	870,449	3,485,109	905,615	3,625,907	942,202	3,772,394	980,267	7,695,649	1,019,870	4,083,361	1,061,073	4,248,328	1,103,940	4,419,961	1,148,539	9,016,679	1,194,940	4,784,308	1,243,216	4,977,594	1,293,442
New Controls	0	44,191	46,296	47,523	540,116	816,932	848,546	880,793	913,687	947,232	981,457	1,001,087	1,021,108	1,041,531	1,062,361	1,083,608	1,105,281	1,127,386	1,149,934	1,172,933	1,196,391	1,220,319	1,244,725	1,269,620	1,295,012	1,320,913	1,347,331	1,374,277	1,401,763	1,429,798	1,458,394
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	5,832,477	5,949,127	5,658,045	6,105,758	6,277,408	6,453,981	6,635,465	6,822,369	7,014,800	7,212,532	7,415,907	7,564,225	7,715,509	7,869,819	8,027,216	8,187,760	8,351,515	8,518,546	8,688,917	8,862,695	9,039,949	9,220,748	9,405,163	9,593,266	9,785,131	9,980,834	#########	#########	#########	#########	#########
Cap Ex																															
Annual/Periodic	1,201,759	10,364,000	1,270,000	3,670,000	2,980,000	3,878,397	1,418,326	4,098,628	1,498,865	#########	1,583,976	4,577,317	1,673,921	4,837,235	1,768,973	5,111,913	1,869,422	#########	1,975,575	5,708,946	2,087,756	6,033,122	2,206,307	6,375,707	2,331,590	#########	2,463,987	7,120,341	2,603,902	7,524,663	2,751,762
One time	0	38,165,230	93,797,377	103,627,001	95,752,393	0	0	0	0	0																					
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

<u>Adjusted Data</u>

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data
- Consumables
- Ash handling
- Required maintenance

FOM
- Periodic maintenance
- Operations
- Planned outages
- Admin cost
  - Property taxes
- Insurance
- Allocated company overhead

Cap EX
- Annual on-going
- Periodic
- One time
- (i.e. bag house, etc.)

Existing Data — **Mill Creek 3**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Heat Rate (Btu/kWh)																															
January	10,917	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
February	10,917	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
March	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
April	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
May	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
June	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
July	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
August	10,969	10,969	10,969	10,969	10,969	11,110	11,110	11,110	11,110	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777	10,777
September	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
October	10,859	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
November	10,859	10,859	10,859	10,859	10,998	10,998	10,998	10,998	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668	10,668
December	10,917	10,917	10,917	10,917	11,057	11,057	11,057	11,057	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726	10,726
Max Capacity (MW)																															
January	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
February	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
March	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
April	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
May	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
June	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
July	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
August	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
September	391	391	391	391	391	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
October	394	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
November	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
December	394	394	394	394	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
Planned Outages (wks/yr)	MO	2	MO	1	MO	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4	1	MO	1	4	1	4	1	4
Emissions (lb/mmBtu)																															
CO2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2	205.2
NOX	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
HG	1.70E-06	1.70E-06	1.70E-06	1.70E-06	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07	6.00E-07
SO2 Removal Rate (%)	90	90	90	90	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Cost Data																															
Variable O&M																															
Consumables	2.0708	1.0675	1.1263	2.2909	2.3367	5.4337	5.5424	5.6532	5.7663	5.8816	5.9992	6.1192	6.2416	6.3664	6.4938	6.6236	6.7561	6.8912	7.0291	7.1697	7.3130	7.4593	7.6085	7.7607	7.9159	8.0742	8.2357	8.4004	8.5684	8.7398	8.9146
Ash handling	0.3181	0.3245	0.3647	0.3381	0.3449	0.3518	0.3588	0.3660	0.3733	0.3807	0.3884	0.3961	0.4041	0.4121	0.4204	0.4288	0.4374	0.4461	0.4550	0.4641	0.4734	0.4829	0.4925	0.5024	0.5124	0.5227	0.5331	0.5438	0.5547	0.5658	0.5771
Fixed O&M ($)																															
Operations	3,008,179	3,068,343	3,207,286	3,351,211	3,441,448	3,534,186	3,629,425	3,727,397	3,828,205	3,931,644	4,038,022	4,118,782	4,201,158	4,285,181	4,370,885	4,458,303	4,547,469	4,638,418	4,731,186	4,825,810	4,922,326	5,020,773	5,121,188	5,223,612	5,328,084	5,434,646	5,543,339	5,654,206	5,767,290	5,882,636	6,000,288
Maintenance	7,081,926	6,190,858	7,368,036	6,695,422	6,849,925	6,965,917	9,152,495	7,247,340	8,297,605	7,540,133	9,906,955	7,844,754	#########	8,161,682	#########	8,491,414	9,721,967	8,834,468	#########	9,191,380	#########	9,562,712	#########	9,949,045	#########	#########	#########	#########	#########	#########	#########
Outage	4,625,076	1,290,797	4,811,929	742,918	2,007,776	772,932	3,156,562	804,158	5,419,014	836,646	3,416,764	870,447	3,554,802	905,613	3,698,416	942,200	6,349,238	980,265	4,003,284	1,019,867	4,165,017	1,061,070	4,333,283	1,103,937	7,439,144	1,148,536	4,690,485	1,194,937	4,879,981	1,243,212	5,077,132
New Controls	0	57,404	67,573	96,028	213,950	809,832	826,027	842,546	859,402	876,581	894,122	912,004	930,244	948,849	967,826	987,183	1,006,926	1,027,065	1,047,606	1,068,558	1,089,929	1,111,728	1,133,962	1,156,642	1,179,775	1,203,370	1,227,437	1,251,986	1,277,026	1,302,566	1,328,618
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ov	6,900,101	7,038,103	7,723,403	7,402,412	7,614,807	7,833,382	8,058,128	8,289,704	8,528,193	8,773,409	9,025,639	9,206,152	9,390,275	9,578,081	9,769,642	9,965,035	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########	#########
Cap Ex																															
Annual/Periodic	9,036,851	1,240,000	9,550,000	1,067,000	4,434,000	1,127,589	3,349,702	1,191,618	#########	1,259,282	3,740,921	1,330,789	3,953,346	1,406,357	4,177,833	1,486,216	#########	1,570,609	4,665,772	1,659,794	4,930,713	1,754,044	5,210,698	1,853,646	#########	1,958,903	5,819,269	2,070,137	6,149,710	2,187,688	6,498,915
One time	0	#########	#########	#########	#########	7,545,814	0	0	0	0																					
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
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Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data **Paddy's Run 11**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
February	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
March	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
April	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
May	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
June	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
July	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
August	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
September	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
October	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
November	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
December	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479	15,479
Max Capacity (MW)																															
January	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
February	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
March	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
April	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
May	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
July	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
August	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
September	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
October	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
November	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
December	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	10,714	10,928	11,256	11,592	11,824	12,060	12,301	12,547	12,799	13,054	13,316	13,582	13,854	14,131	14,413	14,702	14,996	15,296	15,602	15,914	16,232	16,556	16,888	17,225	17,570	17,921	18,280	18,645	19,018	19,399	19,787
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Paddy's Run 12

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
February	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
March	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
April	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
May	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
June	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
July	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
August	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
September	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
October	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
November	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
December	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005	17,005
Max Capacity (MW)																															
January	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
February	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
March	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
April	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
May	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
June	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
July	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
August	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
September	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
October	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
November	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
December	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	64,282	65,568	67,536	69,552	70,943	72,362	73,809	75,283	76,792	78,323	79,894	81,492	83,122	84,784	86,480	88,210	89,974	91,773	93,609	95,481	97,391	99,339	101,325	103,352	105,419	107,527	109,678	111,871	114,109	116,391	118,719
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data Paddy's Run 13

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69
Heat Rate (Btu/kWh)																															
January	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
February	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
March	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
April	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
May	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
June	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
July	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
August	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
September	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381	10,381
October	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
November	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
December	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705	9,705
Max Capacity (MW)																															
January	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
February	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
March	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
April	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
May	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
June	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
July	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
August	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147
September	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
October	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
November	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
December	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
Planned Outages (wks/yr)	15	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1	1	1	1	1	16	1	1
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	57,847	59,004	60,774	62,594	63,846	65,123	66,425	67,752	69,110	70,487	71,902	73,340	74,807	76,303	77,829	79,385	80,973	82,592	84,244	85,929	87,648	89,401	91,189	93,013	94,873	96,770	98,706	100,680	102,693	104,747	106,842
Maintenance	150,237	153,242	157,579	163,012	167,265	171,633	176,115	180,723	185,461	190,318	195,313	199,219	203,203	207,267	211,413	215,641	219,954	224,353	228,840	233,417	238,085	242,847	247,704	252,658	257,711	262,865	268,122	273,485	278,955	284,534	290,224
Outage	102,941	105,000	108,150	111,395	113,623	115,895	118,212	120,574	122,991	125,442	127,959	130,519	133,129	135,792	138,507	141,278	144,103	146,985	149,925	152,923	155,982	159,101	162,283	165,529	168,840	172,217	175,661	179,174	182,758	186,413	190,141
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	106,620	108,752	112,097	114,679	118,119	121,663	125,310	129,071	132,947	136,938	141,044	143,865	146,742	149,677	152,670	155,724	158,838	162,015	165,255	168,560	171,931	175,370	178,877	182,455	186,104	189,826	193,623	197,495	201,445	205,474	209,583
Cap Ex																															
Annual/Periodic	0	0	0	0	0	0	6,000,000	0	0	0	0	0	0	7,279,525	0	0	0	0	0	0	8,831,914	0	0	0	0	0	0	10,715,357	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — Trimble County 5

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	9	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	422,948	233,400	243,268	253,200	259,634	266,239	475,762	279,971	287,124	294,449	301,981	308,020	535,786	320,464	326,874	333,411	340,079	346,881	603,382	360,895	368,113	375,475	382,985	390,644	679,506	406,426	414,555	422,846	431,303	439,929	765,234
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic	0	4,495,482	6,244,142	4,245,810	2,017,625	1,656,283	1,717,475	2,734,712	0	0	0	1,954,759	2,026,978	3,227,530	0	0	0	2,307,023	2,392,257	3,809,158	0	0	0	2,722,768	2,823,361	4,495,600	0	0	0	3,213,433	3,332,155
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Operations																														
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data — **Trimble County 6**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	233,400	243,268	253,200	259,634	466,434	273,013	279,971	287,124	294,449	301,981	525,280	314,181	320,464	326,874	333,411	340,079	591,551	353,819	360,895	368,113	375,475	382,985	666,182	398,457	406,426	414,555	422,846	431,303	750,229	448,728
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic	0	0	0	0	1,611,170	1,670,695	2,660,226	0	0	0	1,901,517	1,971,769	3,139,621	0	0	0	2,244,186	2,327,098	3,705,407	0	0	0	2,648,607	2,746,460	4,373,152	0	0	0	3,125,908	3,241,396	5,161,230
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance

FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Trimble County 7**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	431,407	243,268	253,200	259,634	266,239	273,013	485,278	287,124	294,449	301,981	308,020	314,181	546,501	326,874	333,411
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104
Cap Ex																
Annual/Periodic	1,442,677	1,495,977	2,382,023	306,603	0	0	1,702,659	1,765,564	2,811,284	0	0	0	2,009,492	2,083,734	3,317,901	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																
O&M Escalation Rate	2.0%															
Capital Escalation Rate	2.8%															

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	340,079	346,881	353,819	615,449	368,113	375,475	382,985	390,644	398,457	693,096	414,555	422,846	431,303	439,929	448,728
Outage	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex															
Annual/Periodic	0	0	2,371,620	2,459,240	3,915,814	0	0	0	2,799,005	2,902,415	4,621,477	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — **Trimble County 8**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	422,948	233,400	243,268	253,200	259,634	266,239	475,762	279,971	287,124	294,449	301,981	308,020	535,786	320,464	326,874	333,411	340,079	346,881	603,382	360,895	368,113	375,475	382,985	390,644	679,506	406,426	414,555	422,846	431,303	439,929	765,234
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic	1,455,230	2,317,143	0	306,603	0	1,656,283	1,717,475	2,734,712	0	0	0	1,954,759	2,026,978	3,227,530	0	0	0	2,307,023	2,392,257	3,809,158	0	0	0	2,722,768	2,823,361	4,495,600	0	0	0	3,213,433	3,332,155
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data — Trimble County 9

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Operations																
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0
Emissions (lb/mmBtu)																
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																
Variable O&M																
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	431,407	243,268	253,200	259,634	266,239	273,013	485,278	287,124	294,449	301,981	308,020	314,181	546,501	326,874	333,411
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																
Property taxes																
Insurance																
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104
Cap Ex																
Annual/Periodic	1,442,677	1,495,977	2,382,023	0	0	0	1,702,659	1,765,564	2,811,284	0	0	0	2,009,492	2,083,734	3,317,901	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0
Emissions (lb/mmBtu)															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data															
Variable O&M															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	340,079	346,881	353,819	615,449	368,113	375,475	382,985	390,644	398,457	693,096	414,555	422,846	431,303	439,929	448,728
Outage	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost															
Property taxes															
Insurance															
Allocated company ove	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex															
Annual/Periodic	0	0	2,371,620	2,459,240	3,915,814	0	0	0	2,799,005	2,902,415	4,621,477	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)															

O&M Escalation Rate	2.0%
Capital Escalation Rate	2.8%

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data

Consumables
Ash handling
Required maintenance

FOM

Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead

Cap EX

Annual on-going
Periodic
One time
(i.e. bag house, etc.)

Existing Data Trimble County 10

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55	4.55
Heat Rate (Btu/kWh)																															
January	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
February	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
March	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
April	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
May	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
June	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
July	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
August	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
September	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429	10,429
October	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
November	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
December	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069	10,069
Max Capacity (MW)																															
January	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
February	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
March	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
April	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
May	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
June	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
July	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
August	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
September	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
October	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
November	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
December	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
Planned Outages (wks/yr)	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
NOX	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	228,824	233,400	439,531	253,200	259,634	266,239	273,013	279,971	494,983	294,449	301,981	308,020	314,181	320,464	557,431	333,411	340,079	346,881	353,819	360,895	627,758	375,475	382,985	390,644	398,457	406,426	706,958	422,846	431,303	439,929	448,728
Outage	5,115	5,217	5,373	5,534	5,645	5,758	5,873	5,990	6,110	6,232	6,357	6,484	6,614	6,746	6,881	7,019	7,159	7,302	7,448	7,597	7,749	7,904	8,062	8,223	8,388	8,556	8,727	8,901	9,079	9,261	9,446
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	146,944	149,882	156,436	159,881	164,678	169,618	174,702	179,946	185,350	190,914	196,638	200,571	204,582	208,674	212,847	217,104	221,446	225,875	230,393	235,000	239,700	244,494	249,384	254,372	259,460	264,649	269,942	275,341	280,847	286,464	292,194
Cap Ex																															
Annual/Periodic	0	1,483,071	1,537,864	2,448,720	0	0	0	1,750,333	1,815,000	2,890,000	0	0	0	2,065,758	2,142,078	3,410,802	0	0	0	2,438,025	2,528,099	4,025,457	0	0	0	2,877,377	2,983,683	4,750,878	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
FOR																														
HR																														
Capacity																														
Maintenance (Planned)																														
Emmissions																														
CO2																														
SO2																														
NOX																														
HG																														
Cost Data																														
Consumables																														
Ash handling																														
Required maintenance																														
FOM																														
Periodic maintenance																														
Operations																														
Planned outages																														
Admin cost																														
Property taxes																														
Insurance																														
Allocated company overhead																														
Cap EX																														
Annual on-going																														
Periodic																														
One time																														
(i.e. bag house, etc.)																														

Existing Data | **Zorn 1**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Operations																															
EUOR (%)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Heat Rate (Btu/kWh)																															
January	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
February	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
March	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
April	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
May	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
June	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
July	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
August	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
September	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
October	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
November	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
December	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676	18,676
Max Capacity (MW)																															
January	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
February	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
March	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
April	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
May	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
June	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
July	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
August	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
September	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
October	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
November	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
December	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Planned Outages (wks/yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emissions (lb/mmBtu)																															
CO2	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
NOX	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
HG	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.64E-08
SO2 Removal Rate (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Data																															
Variable O&M																															
Consumables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash handling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed O&M ($)																															
Operations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	4,286	4,372	4,504	4,636	4,729	4,823	4,920	5,018	5,119	5,221	5,325	5,432	5,541	5,651	5,764	5,880	5,997	6,117	6,240	6,364	6,492	6,621	6,754	6,889	7,027	7,167	7,311	7,457	7,606	7,758	7,913
Outage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Admin cost																															
Property taxes																															
Insurance																															
Allocated company ove	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cap Ex																															
Annual/Periodic	0	0	623,774	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i.e. bag house, etc.)																															
O&M Escalation Rate	2.0%																														
Capital Escalation Rate	2.8%																														

Adjusted Data

Operations	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040

FOR
HR
Capacity
Maintenance (Planned)
Emmissions
CO2
SO2
NOX
HG

Cost Data
Consumables
Ash handling
Required maintenance
FOM
Periodic maintenance
Operations
Planned outages
Admin cost
Property taxes
Insurance
Allocated company overhead
Cap EX
Annual on-going
Periodic
One time
(i.e. bag house, etc.)

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Karavayev, Louanne
Subject: Data Reqquest
Date: 9/23/2011 1:53:46 PM

Lou Anne,

We are hitting a stumbling block on modeling your heat rates due to the way PowerBase converts it into Strategist. Would you please sent me your Powerbase file that matches the Strategist SAV file you sent me. I want to see what it is you were asking it versus what the conversion program converted it.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com <mailto:norman.lee@Ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: Can you guys talk
Date: 9/30/2011 2:44:12 PM

This afternoon? We would like to go over some of the calculations and data manipulations and how they look for input to Strategist with you. This is a touch point before we get all the data into Strategist and start running the cases. Let me know what time works for you today. Thanks!

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

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More details coming soon. =

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From: Karavayev, Louanne
To: 'Eric Hughes'
Subject: RE: Can you guys talk
Date: 9/30/2011 3:30:57 PM

Stuart is out of the office today, but I am available now if that works for you all.

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, September 30, 2011 2:44 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: Can you guys talk

This afternoon? We would like to go over some of the calculations and data manipulations and how they look for input to Strategist with you. This is a touch point before we get all the data into Strategist and start running the cases. Let me know what time works for you today. Thanks!

Eric Hughes
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eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

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=

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Karavayev, Louanne; Eric Hughes
Subject: RE: Can you guys talk
Date: 9/30/2011 3:51:27 PM

Lou Anne,

8:30 is fine with us. We will send you a link to a WebEX so that we can show you the files as we talk.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Friday, September 30, 2011 3:31 PM
To: Eric Hughes
Cc: Norman Lee; Wilson, Stuart
Subject: RE: Can you guys talk

Stuart is out of the office today, but I am available now if that works for you all.

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, September 30, 2011 2:44 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: Can you guys talk

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From: Karavayev, Louanne
To: 'Norman Lee'; Eric Hughes
Subject: RE: Can you guys talk
Date: 9/30/2011 3:55:42 PM

Sounds good. Talk to you then. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Friday, September 30, 2011 3:51 PM
To: Karavayev, Louanne; Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Can you guys talk

Lou Anne,

8:30 is fine with us. We will send you a link to a WebEX so that we can show you the files as we talk.

Thanks

Norm

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Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

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From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Friday, September 30, 2011 3:31 PM
To: Eric Hughes
Cc: Norman Lee; Wilson, Stuart
Subject: RE: Can you guys talk

Stuart is out of the office today, but I am available now if that works for you all.

Lou Anne Karavayev
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p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, September 30, 2011 2:44 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: Can you guys talk

This afternoon? We would like to go over some of the calculations and data manipulations and how they look for input to Strategist with you. This is a touch point before we get all the data into Strategist and start running the cases. Let me know what time works for you today. Thanks!

Eric Hughes
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=

From: Wilson, Stuart
To: 'Eric Hughes'
Subject: Meeting
Date: 10/6/2011 12:31:04 PM

Eric/Norm,

I pushed today's meeting back to tomorrow thinking it will give us more time to kick the tires' before we pass anything along. We're still anxious to hear your initial thoughts, but there's no need to postpone lunch any longer!

Thanks.

Stuart

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Meeting
Date: 10/6/2011 12:35:03 PM

That's good news. I would hate for a simple spreadsheet error to result in our having to radically revise the dates we were scrambling to get to you. Let's talk early this afternoon. How does 2PM sound to you guys?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, October 06, 2011 12:31 PM
To: Eric Hughes
Cc: Norman Lee; Karavayev, Louanne
Subject: Meeting

Eric/Norm,

I pushed today's meeting back to tomorrow thinking it will give us more time to kick the tires' before we pass anything along. We're still anxious to hear your initial thoughts, but there's no need to postpone lunch any longer!

Thanks.

Stuart

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=

From: Wilson, Stuart
To: 'eric.hughes@abb.ventyx.com'
Subject: Re: Meeting
Date: 10/6/2011 12:43:02 PM

Perfect.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, October 06, 2011 12:35 PM
To: Wilson, Stuart
Cc: Norman Lee <Norman.Lee@abb.ventyx.com>; Karavayev, Louanne
Subject: RE: Meeting

That's good news. I would hate for a simple spreadsheet error to result in our having to radically revise the dates we were scrambling to get to you. Let's talk early this afternoon. How does 2PM sound to you guys?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, October 06, 2011 12:31 PM
To: Eric Hughes
Cc: Norman Lee; Karavayev, Louanne
Subject: Meeting

Eric/Norm,

I pushed today's meeting back to tomorrow thinking it will give us more time to kick the tires' before we pass anything along. We're still anxious to hear your initial thoughts, but there's no need to postpone lunch any longer!

Thanks.

Stuart

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= Dates and location for European Mindshare coming soon. =

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: Status
Date: 10/6/2011 4:22:27 PM

Stuart and Lou Anne

I have taken a preliminary look at Brown 1 and 2. Brown 1 goes negative in 2021 which is the same year of a major maintenance cost in the FOM numbers. Brown two does the same thing in 2023. It appears that the high bump in those years causes them to tip over to the negative. We are still looking at it. We will get back with you first thing in the morning to discuss what we have found.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com <mailto:norman.lee@Ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: I'm back...
Date: 10/7/2011 2:19:28 PM

Call me then! I have the spreadsheet from Norm&

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, October 07, 2011 2:15 PM
To: Eric Hughes
Subject: I'm back...

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Karavayev, Louanne
Subject: A double check as I go through thses spreadsheets
Date: 10/10/2011 10:52:05 AM

I am finding links in the Strategist database for Mill Creek 3 to the adjusted data spreadsheet, but I do not find it in the list of Proview alternatives to get put back into the mix. Should Mill Creek 3 be included in this analysis?

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= Dates and location for European Mindshare coming soon. =

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From: Karavayev, Louanne
To: 'Eric Hughes'
Subject: RE: A double check as I go through thses spreadsheets
Date: 10/10/2011 10:55:10 AM

Yes, Mill Creek 3 should be included in the analysis. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, October 10, 2011 10:52 AM
To: Karavayev, Louanne
Subject: A double check as I go through thses spreadsheets

I am finding links in the Strategist database for Mill Creek 3 to the adjusted data spreadsheet, but I do not find it in the list of Proview alternatives to get put back into the mix. Should Mill Creek 3 be included in this analysis?

=

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Karavayev, Louanne
Subject: RE: A double check as I go through thses spreadsheets
Date: 10/10/2011 11:08:20 AM

I think I have an inconsistency in data linkage with Mill Creek 3. Also with Brown 3. I am double checking the links now to be sure all the right data is going to the right place/unit. Then I'll go back and work through the units to extend all of them out to 2040.

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Monday, October 10, 2011 10:55 AM
To: Eric Hughes
Subject: RE: A double check as I go through thses spreadsheets

Yes, Mill Creek 3 should be included in the analysis. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, October 10, 2011 10:52 AM
To: Karavayev, Louanne
Subject: A double check as I go through thses spreadsheets

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Any views expressed in this email = message are those of the individual sender except where the sender = specifically states them to be the views of Ventyx.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: Tuesday Morning Status Check
Date: 10/11/2011 9:27:43 AM

Stuart;

I spoke with Louanne yesterday about several problems I was having with updating the data to push the nominal retirements out past the end of the study period (2042). I was able to correct the problem so that I will not be spending all of my time copying & pasting from the spreadsheets to the Strategist database; my spreadsheet links are now working correctly.

I have been extending the adjusted data out through 2040 for each of the units we are examining and I am a little over halfway done with that part of this exercise. I do have a few of questions for you two, but I will not have an open time to talk with you until after 11 AM (back-to-back-to-back conference calls&). Will 11:30 AM work for you two? This shouldn't take more than 15 minutes, and then I can dive back in and finish the data extensions. Now that I have the routine down for how to do these individual unit spreadsheet changes it is speeding up. I hope to be able to start the runs again by around 3 PM. That would give me some results at the end of today.

Let me know about the call time. Also: I am working from home today (my first conference call was at 7:30 this morning&) so I will have to call you in your office. Thanks.

Eric

=

=

From: Wilson, Stuart
To: 'Eric Hughes'; Karavayev, Louanne
Subject: RE: Tuesday Morning Status Check
Date: 10/11/2011 10:36:31 AM

Eric,

11:30 is perfect. Please call me at my desk& 502/627-4993.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, October 11, 2011 9:28 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: Tuesday Morning Status Check

Stuart;

I spoke with Louanne yesterday about several problems I was having with updating the data to push the nominal retirements out past the end of the study period (2042). I was able to correct the problem so that I will not be spending all of my time copying & pasting from the spreadsheets to the Strategist database; my spreadsheet links are now working correctly.

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Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: Tuesday Morning Status Check
Date: 10/11/2011 3:10:33 PM

My original estimate of starting the runs around 3 PM was eerily accurate& I am running now.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, October 11, 2011 10:37 AM
To: Eric Hughes; Karavayev, Louanne
Cc: Norman Lee
Subject: RE: Tuesday Morning Status Check

Eric,

11:30 is perfect. Please call me at my desk& 502/627-4993.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, October 11, 2011 9:28 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: Tuesday Morning Status Check

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: Tuesday Morning Status Check
Date: 10/11/2011 3:49:11 PM

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Eric

From: Eric Hughes
Sent: Tuesday, October 11, 2011 3:11 PM
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Cc: Norman Lee
Subject: RE: Tuesday Morning Status Check

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From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
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Subject: RE: Tuesday Morning Status Check

Eric,

11:30 is perfect. Please call me at my desk& 502/627-4993.

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From: Wilson, Stuart
To: 'Eric Hughes'; Karavayev, Louanne
Subject: RE: Tuesday Morning Status Check
Date: 10/11/2011 4:24:53 PM

Understand. Makes sense. Thanks.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, October 11, 2011 3:49 PM
To: Wilson, Stuart; Karavayev, Louanne
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: Tuesday Morning Status Check
Date: 10/11/2011 5:31:18 PM

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Tuesday Morning Status Check
Date: 10/11/2011 5:34:46 PM

Yes. I will set it up and send you're the invite in the morning.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
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Subject: Tuesday Morning Status Check

Stuart;

I spoke with Louanne yesterday about several problems I was having with updating the data to push the nominal retirements out past the end of the study period (2042). I was able to correct the problem so that I will not be spending all of my time copying & pasting from the spreadsheets to the Strategist database; my spreadsheet links are now working correctly.

I have been extending the adjusted data out through 2040 for each of the units we are examining and I am a little over halfway done with that part of this exercise. I do have a few of questions for you two, but I will not have an open time to talk with you until after 11 AM (back-to-back-to-back conference calls&). Will 11:30 AM work for you two? This shouldn't take more than 15 minutes, and then I can dive back in and finish the data extensions. Now that I have the routine down for how to do these individual unit spreadsheet changes it is speeding up. I hope to be able to start the runs again by around 3 PM. That would give me some results at the end of today.

Let me know about the call time. Also: I am working from home today (my first conference call was at 7:30 this morning&) so I will have to call you in your office. Thanks.

Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Meeting
Date: 10/12/2011 3:44:29 PM

Guess so. However, to be honest I haven't made much progress this afternoon& The paperwork monster has reared its ugly head again and sucked off the last couple of hours. Can we go first thing in the morning? Say 9 AM?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, October 12, 2011 3:40 PM
To: Eric Hughes
Cc: Karavayev, Louanne
Subject: Meeting

Eric,

I was mistaken earlier. I actually have a 4:00 PM meeting (not a 3:00 PM meeting). Can we talk after 4:30?

Stuart

____

=

From: Wilson, Stuart
To: 'Eric Hughes'
Subject: RE: Meeting
Date: 10/12/2011 3:47:32 PM

I'll be out tomorrow morning (and most of the day) starting at 9:00. I'm available earlier if you are.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 12, 2011 3:44 PM
To: Wilson, Stuart
Subject: RE: Meeting

Guess so. However, to be honest I haven't made much progress this afternoon& The paperwork monster has reared its ugly head again and sucked off the last couple of hours. Can we go first thing in the morning? Say 9 AM?

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Stuart

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Meeting
Date: 10/12/2011 3:50:12 PM

I have a conference call with a potential client in Africa from 6:30 to 8 AM. If you want me to set something up for say 8:15 AM I could do that remotely before coming in to the office myself. Or maybe use it as an excuse to work from home again to concentrate on this for another day&

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, October 12, 2011 3:48 PM
To: Eric Hughes
Cc: Karavayev, Louanne
Subject: RE: Meeting

I'll be out tomorrow morning (and most of the day) starting at 9:00. I'm available earlier if you are.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 12, 2011 3:44 PM
To: Wilson, Stuart
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Meeting
Date: 10/12/2011 3:53:40 PM

It doesn't; just postpones it for another day& I'll set it up for starting at 8:15 AM then. Talk to you then!

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, October 12, 2011 3:52 PM
To: Eric Hughes
Cc: Karavayev, Louanne
Subject: RE: Meeting

That will work. I'll support you working from home if it lessens the paper work!

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 12, 2011 3:50 PM
To: Wilson, Stuart
Subject: RE: Meeting

I have a conference call with a potential client in Africa from 6:30 to 8 AM. If you want me to set something up for say 8:15 AM I could do that remotely before coming in to the office myself. Or maybe use it as an excuse to work from home again to concentrate on this for another day&

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: New linkage prolems...
Date: 10/13/2011 10:24:09 AM

Stuart and Louanne;

My links are not working properly again& At least they do not appear to be updating the way they should. And I have discovered that the annual maintenance links are non-existent so that the maintenance is not following the upward curves we want either. This will take some time to fix, so it may be closer to 5 or so when I get this corrected and re-run. This is certainly effecting the results we were getting.

Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Call?
Date: 10/14/2011 3:59:19 PM

About 5 minutes& I think this is moving in the right direction.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, October 14, 2011 3:58 PM
To: Eric Hughes
Subject: RE: Call?

4:00 is good if it's OK with you. I'll be at my desk&

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, October 14, 2011 3:28 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: Call?

Would you like 4 PM or 4:30 PM?

Eric Hughes
Vice President - Advisors

Ventyx, an ABB Company

(o) 770-779-2855 | (c) 404-849-7013
eric.hughes@abb.ventyx.com <mailto:eric.hughes@ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

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From: Eric Hughes <messenger@webex.com>
To: Wilson, Stuart
Subject: Please join now, meeting in progress: Life Assessment
Date: 10/14/2011 4:03:12 PM

Hello ,

Please join my meeting that is currently in progress.

Topic: Life Assessment
Date: Friday, October 14, 2011
Time: 4:01 pm, Eastern Daylight Time (New York, GMT-04:00)
Meeting Number: 622 238 933
Meeting Password: LGEKU

To join the online meeting (Now from mobile devices!)
----
1. Go to https://ventyx.webex.com/ventyx/e.php?AT=WMI&EventID=183367437&PW=NZjUzNjY5MDM4&RT=MiMxMQ%3D%3D
2. If requested, enter your name and email address.
3. If a password is required, enter the meeting password: LGEKU
4. Click "Join".
5. Follow the instructions that appear on your screen.

To view in other time zones or languages, please click the link:
https://ventyx.webex.com/ventyx/e.php?AT=WMI&EventID=183367437&PW=NZjUzNjY5MDM4&ORT=MiMxMQ%3D%3D

For assistance
----
1. Go to https://ventyx.webex.com/ventyx/mc
2. On the left navigation bar, click "Support".

You can contact me at:
eric.hughes@ventyx.com

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Call?
Date: 10/14/2011 4:04:41 PM

Let's use this call in number: norm is working remotely now.

1-866-804-6387 (North America Toll-Free), and enter access code: 0132347

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, October 14, 2011 4:00 PM
To: Eric Hughes
Cc: Karavayev, Louanne; Norman Lee
Subject: RE: Call?

OK.

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Friday, October 14, 2011 3:59 PM
To: Wilson, Stuart
Cc: Karavayev, Louanne; Norman Lee
Subject: RE: Call?

About 5 minutes& I think this is moving in the right direction.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, October 14, 2011 3:58 PM
To: Eric Hughes
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Stuart

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Would you like 4 PM or 4:30 PM?

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: Can you guys get on a WebEx with us?
Date: 10/17/2011 3:59:10 PM

To go over how these (hopefully final) adjustments to our Logistics Function curves look before we run all this through again? Let me know and I will set it up ASAP. Thanks.

Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Karavayev, Louanne; Wilson, Stuart
Subject: RE: Can you guys get on a WebEx with us?
Date: 10/17/2011 4:07:15 PM

Then we will get set-up and run it anyway this evening, but not do the reporting until we review the changes in the morning. We are wide open, so pick a time and I'll set it up. Thanks.

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Monday, October 17, 2011 4:03 PM
To: Eric Hughes; Wilson, Stuart
Cc: Norman Lee
Subject: RE: Can you guys get on a WebEx with us?

Stuart is in a meeting until 5 today. It might have to wait until morning&

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, October 17, 2011 3:59 PM
To: Wilson, Stuart; Karavayev, Louanne
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From: Wilson, Stuart
To: 'Eric Hughes'; Karavayev, Louanne
Subject: RE: Can you guys get on a WebEx with us?
Date: 10/17/2011 5:56:53 PM

Sorry I missed you guys earlier. This sounds good. I'm available tomorrow before 9:30 and can push my 9:30 back to 10:30 if necessary. At your convenience... Please send us a meeting notice.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, October 17, 2011 4:07 PM
To: Karavayev, Louanne; Wilson, Stuart
Cc: Norman Lee
Subject: RE: Can you guys get on a WebEx with us?

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From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: Re: Can you guys get on a WebEx with us?
Date: 10/17/2011 6:09:34 PM

Let's go for 9AM

Eric Hughes
(o) 770-779-2855
(c) 404-849-7013
eric.hughes@abb.ventyx.com
Sent from my iPhone

On Oct 17, 2011, at 5:58 PM, "Wilson, Stuart" <Stuart.Wilson@lge-ku.com> wrote:

Sorry I missed you guys earlier. This sounds good. I'm available tomorrow before 9:30 and can push my 9:30 back to 10:30 if necessary. At your convenience... Please send us a meeting notice.

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: FW: (Forward to attendees) Please join now, meeting in progress: LGE-KU Life Assessment
Date: 10/18/2011 8:56:36 AM

Please call me at my office: 770-779-2855. Sorry; I was running a bit late this morning& I am on-line now. Thanks.

From: Eric Hughes [mailto:messenger@webex.com]
Sent: Tuesday, October 18, 2011 8:55 AM
To: Eric Hughes
Subject: (Forward to attendees) Please join now, meeting in progress: LGE-KU Life Assessment
Importance: High

**** You can forward this email invitation to attendees ****

Hello ,

Please join my meeting that is currently in progress.

Topic: LGE-KU Life Assessment
Date: Tuesday, October 18, 2011
Time: 8:54 am, Eastern Daylight Time (New York, GMT-04:00)
Meeting Number: 628 745 314
Meeting Password: LGEKU

To join the online meeting (Now from mobile devices!)
----
1. Go to https://ventyx.webex.com/ventyx/e.php?AT=MI&EventID=183583787&UID=0&PW=NMzNmMGQ2Y2Rj&RT=MiMxMQ%3D%3D
2. If requested, enter your name and email address.
3. If a password is required, enter the meeting password: LGEKU
4. Click "Join".
5. Follow the instructions that appear on your screen.

To view in other time zones or languages, please click the link:
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For assistance
----
1. Go to https://ventyx.webex.com/ventyx/mc
2. On the left navigation bar, click "Support".

You can contact me at:
eric.hughes@ventyx.com

Sign up for a free trial of WebEx
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http://www.webex.com

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: Can we talk now?
Date: 10/18/2011 11:23:20 AM

We have the results from this run. And I think it looks like what we were really expecting too! If yes I will send a meeting with WebEx link out immediately!

Eric

=

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More details coming soon. =

= Dates and location for European Mindshare coming soon. =

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=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: When are you available for a call?
Date: 10/19/2011 9:50:59 AM

Stuart;

We have the results of our separate coal and gas runs, and they are what we would expect: same retirement years. When can we get on a conference call to go over this and our next steps? Norm and I are working remotely today and have wide open schedules.

Eric

=

= Mindshare 2012 | May 8-10 | Orlando, FL =
More details coming soon. =

= Dates and location for European Mindshare coming soon. =

=

From: Wilson, Stuart
To: 'eric.hughes@abb.ventyx.com'; Karavayev, Louanne
Subject: Re: When are you available for a call?
Date: 10/19/2011 10:40:55 AM

Glad to hear the results make sense. I'm pretty tied up today in meetings. I hope to be able to check in at some point after lunch.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 19, 2011 09:50 AM
To: Wilson, Stuart; Karavayev, Louanne
Subject: When are you available for a call?

Stuart;

We have the results of our separate coal and gas runs, and they are what we would expect: same retirement years. When can we get on a conference call to go over this and our next steps? Norm and I are working remotely today and have wide open schedules.

Eric

=

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More details coming soon. =

= Dates and location for European Mindshare coming soon. =

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: When are you available for a call?
Date: 10/19/2011 10:44:48 AM

Let me know when you have a few minutes to run through this.

I already have Norm running one last refinement: we are doing the same run we did with the gas units with the secondary units. That way we will have a good cost comparison to work with on the how much is too much to spend question. We'll do a similar set of charts, but use the nominal cost numbers instead of the PV ones to generate the annual differentials. I think this is the way we will want to present results for those units.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, October 19, 2011 10:41 AM
To: Eric Hughes; Karavayev, Louanne
Subject: Re: When are you available for a call?

Glad to hear the results make sense. I'm pretty tied up today in meetings. I hope to be able to check in at some point after lunch.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 19, 2011 09:50 AM
To: Wilson, Stuart; Karavayev, Louanne
Subject: When are you available for a call?

Stuart;

We have the results of our separate coal and gas runs, and they are what we would expect: same retirement years. When can we get on a conference call to go over this and our next steps? Norm and I are working remotely today and have wide open schedules.

Eric

=

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: When are you available for a call?
Date: 10/19/2011 2:51:02 PM

We now have three sets of results broken out by type (coal units, gas units, secondary units). The secondary units are presented in nominal dollars instead of PV $. This makes it pretty clear that if you need to spend more than a couple million on any of them it would throw them into the red, at least for that year. And if the estimates of $10+ million to get one of these guys back on-line if a major failure occurs are accurate, then it would make these units non-economic for up to 5 years following that point in time.

I have Norm looking at the final (full not redacted) report from the 2007 analysis to see if that is a good template for the structure of this report. I know that we will be reworking the methodology section a bit to take into account the refinements we employed this time (ECC and logistics function), and we will need a whole section covering the secondary units as a separate issue from the other units.

Actually, at this point we could wait until the morning to have a detailed discussion about all of this. Particularly since breaking the analysis into the three parts did not result in anything unexpected! Let me know what time works for you and I will schedule it, with a WebEx so you can see our final results too.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, October 19, 2011 10:41 AM
To: Eric Hughes; Karavayev, Louanne
Subject: Re: When are you available for a call?

Glad to hear the results make sense. I'm pretty tied up today in meetings. I hope to be able to check in at some point after lunch.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 19, 2011 09:50 AM
To: Wilson, Stuart; Karavayev, Louanne
Subject: When are you available for a call?

Stuart;

We have the results of our separate coal and gas runs, and they are what we would expect: same retirement years. When can we get on a conference call to go over this and our next steps? Norm and I are working remotely today and have wide open schedules.

Eric

=

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From: Wilson, Stuart
To: 'Eric Hughes'; Karavayev, Louanne
Subject: RE: When are you available for a call?
Date: 10/19/2011 4:06:57 PM

Eric,

Thanks. Sounds great. Can we trouble you for an 8:30 call (tomorrow morning)?

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 19, 2011 2:51 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: RE: When are you available for a call?

We now have three sets of results broken out by type (coal units, gas units, secondary units). The secondary units are presented in nominal dollars instead of PV $. This makes it pretty clear that if you need to spend more than a couple million on any of them it would throw them into the red, at least for that year. And if the estimates of $10+ million to get one of these guys back on-line if a major failure occurs are accurate, then it would make these units non-economic for up to 5 years following that point in time.

I have Norm looking at the final (full not redacted) report from the 2007 analysis to see if that is a good template for the structure of this report. I know that we will be reworking the methodology section a bit to take into account the refinements we employed this time (ECC and logistics function), and we will need a whole section covering the secondary units as a separate issue from the other units.

Actually, at this point we could wait until the morning to have a detailed discussion about all of this. Particularly since breaking the analysis into the three parts did not result in anything unexpected! Let me know what time works for you and I will schedule it, with a WebEx so you can see our final results too.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, October 19, 2011 10:41 AM
To: Eric Hughes; Karavayev, Louanne
Subject: Re: When are you available for a call?

Glad to hear the results make sense. I'm pretty tied up today in meetings. I hope to be able to check in at some point after lunch.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, October 19, 2011 09:50 AM
To: Wilson, Stuart; Karavayev, Louanne
Subject: When are you available for a call?

Stuart;

We have the results of our separate coal and gas runs, and they are what we would expect: same retirement years. When can we get on a conference call to go over this and our next steps? Norm and I are working remotely today and have wide open schedules.

Eric

=

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More details coming soon. =

= Dates and location for European Mindshare coming soon. =

=

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: Life Assessment Report and Ventyx visit
Date: 11/2/2011 10:24:26 AM

Stuart;

I wanted to touch base with you about the Life Assessment Report and get at least your initial feedback even if you haven't had time to do any extensive reading or editing.

I also wanted to ask you about the visit by myself and several others from Ventyx on the 17th. There were some questions coming from the sales team about how to proceed, and I thought that some guidance from you would make this meeting more productive for all of us.

Please let me know when would be a good time for us to talk. Thanks.

Eric

=

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More details coming soon. =

= Dates and location for European Mindshare coming soon. =

=

From: Wilson, Stuart
To: 'Eric Hughes'; Karavayev, Louanne
Subject: RE: Life Assessment Report and Ventyx visit
Date: 11/2/2011 10:48:09 AM

I'll try to get back to you later today. A call is a good idea. We received an unexpected round of data requests in our ECR case and it's in our best interest to finalize it today (so we've been working a LOT to make that happen)&

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, November 02, 2011 10:24 AM
To: Wilson, Stuart; Karavayev, Louanne
Subject: Life Assessment Report and Ventyx visit

Stuart;

I wanted to touch base with you about the Life Assessment Report and get at least your initial feedback even if you haven't had time to do any extensive reading or editing.

I also wanted to ask you about the visit by myself and several others from Ventyx on the 17th. There were some questions coming from the sales team about how to proceed, and I thought that some guidance from you would make this meeting more productive for all of us.

Please let me know when would be a good time for us to talk. Thanks.

Eric

=

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=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: The Report Draft
Date: 11/7/2011 10:26:51 AM

Stuart;

If you and Louanne can make any changes you want in the document, including inserting comments for places we need to discuss things, and then get that back to us we can get on a call to discuss. Please make sure that Track Changes and Show Markup are both turned on in Word so we can easily find the changes. Thanks!

Eric

=

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More details coming soon. =

= Dates and location for European Mindshare coming soon. =

=

From: Wilson, Stuart
To: Eric Hughes; Karavayev, Louanne
Subject: RE: The Report Draft
Date: 11/7/2011 3:03:00 PM

Eric/Norm,

Lou Anne's out today. The paper looks good overall. I have some general comments and eventually probably with Lou Anne's input some more specific comments/questions. Are you available this afternoon to discuss?

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, November 07, 2011 9:27 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: The Report Draft

Stuart;

If you and Louanne can make any changes you want in the document, including inserting comments for places we need to discuss things, and then get that back to us we can get on a call to discuss. Please make sure that Track Changes and Show Markup are both turned on in Word so we can easily find the changes. Thanks!

Eric

=

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: The Report Draft
Date: 11/7/2011 3:03:52 PM

I have a conference call in an hour. I could do it after 4PM.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Monday, November 07, 2011 2:03 PM
To: Eric Hughes; Karavayev, Louanne
Cc: Norman Lee
Subject: RE: The Report Draft

Eric/Norm,

Lou Anne's out today. The paper looks good overall. I have some general comments and eventually probably with Lou Anne's input some more specific comments/questions. Are you available this afternoon to discuss?

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Monday, November 07, 2011 9:27 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: The Report Draft

Stuart;

If you and Louanne can make any changes you want in the document, including inserting comments for places we need to discuss things, and then get that back to us we can get on a call to discuss. Please make sure that Track Changes and Show Markup are both turned on in Word so we can easily find the changes. Thanks!

Eric

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Karavayev, Louanne
Subject: RE: LGE-KU Life Assessment Report 10-28-2011 v1.docx
Date: 11/10/2011 5:21:42 PM

Thanks you Louanne. We'll look over this and let you know if we have any questions. In the meantime we'll start fleshing out what we talked about yesterday.

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Thursday, November 10, 2011 4:19 PM
To: Eric Hughes
Cc: Norman Lee; Wilson, Stuart
Subject: RE: LGE-KU Life Assessment Report 10-28-2011 v1.docx

Please see my edited/commented version attached. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, November 09, 2011 3:13 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: FW: LGE-KU Life Assessment Report 10-28-2011 v1.docx

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, November 09, 2011 2:05 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: LGE-KU Life Assessment Report 10-28-2011 v1.docx

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From: Karavayev, Louanne
To: 'Eric Hughes'
Subject: RE: LGE-KU Life Assessment Report 10-28-2011 v1.docx
Date: 11/10/2011 5:25:50 PM

Sounds great, thanks. I included a couple of comments from our discussion yesterday as well.

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, November 10, 2011 4:22 PM
To: Karavayev, Louanne
Cc: Norman Lee; Wilson, Stuart
Subject: RE: LGE-KU Life Assessment Report 10-28-2011 v1.docx

Thanks you Louanne. We'll look over this and let you know if we have any questions. In the meantime we'll start fleshing out what we talked about yesterday.

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Thursday, November 10, 2011 4:19 PM
To: Eric Hughes
Cc: Norman Lee; Wilson, Stuart
Subject: RE: LGE-KU Life Assessment Report 10-28-2011 v1.docx

Please see my edited/commented version attached. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, November 09, 2011 3:13 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: FW: LGE-KU Life Assessment Report 10-28-2011 v1.docx

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Wednesday, November 09, 2011 2:05 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: LGE-KU Life Assessment Report 10-28-2011 v1.docx

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Karavayev, Louanne
Subject: Re: File
Date: 11/15/2011 6:36:07 PM

I'll see what I can send you as soon as I've gotten setup at my hotel.

Eric Hughes
(o) 770-779-2855
(c) 404-849-7013
eric.hughes@abb.ventyx.com
Sent from my iPhone

On Nov 15, 2011, at 5:30 PM, "Karavayev, Louanne" <Louanne.Karavayev@lge-ku.com> wrote:

> Norm/Eric,
> Is there any way you all can send me the most updated version of this file? If I'm not mistaken, what I've got (attached) is an outdated version. I'm wanting to use a couple of the graphs for a presentation, to show how we escalated our assumptions to get the Hockey Stick. Thanks,
>
> Lou Anne Karavayev
> LG&E and KU
> Generation Planning
> p (502) 627-2563
> f (502) 217-4969
> e LouAnne.Karavayev@lge-ku.com
>
> From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
> Sent: Monday, October 03, 2011 8:41 AM
> To: Karavayev, Louanne; Wilson, Stuart
> Cc: Eric Hughes
> Subject: File
>
>
>
> Thanks
> Norm
>
>
> Norman R. Lee Jr.
> Principal Consultant - Advisors
> Ventyx, an ABB Company
> Office:770-779-2816
> Cell: 770-905-6427
> E-mail: norman.lee@Ventyx.com<mailto:norman.lee@Ventyx.com>
> www.ventyx.com<http://www.ventyx.com/>
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****

From: Karavayev, Louanne
To: Eric Hughes; Norman Lee
Subject: RE: File
Date: 11/16/2011 11:55:37 AM

Thanks, Eric. From what I can tell, it looks like we adjusted all of the costs EXCEPT allocated company overhead and CapEx. CapEx was included using the ECC, but it was not adjusted in any way with the logistic function. Is that correct? Just want to make sure I understand and remember correctly.
Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, November 15, 2011 5:57 PM
To: Karavayev, Louanne; Norman Lee
Cc: Wilson, Stuart
Subject: RE: File

Lou Anne;

This is the latest version that I have. I think it's from the week I was doing the runs (at least the time/date stamp matches up for that&). I hope this is more helpful. If you need help tomorrow let Norm know. I will be tied up from first thing in the morning until early afternoon. Then I start travel from Michigan to Louisville& I will be over there around 9 AM Thursday morning and can help some more then if need be. I was going to go over some things with Stuart and you in the morning, and then join the sales team for the afternoon session. See you then!

Eric

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Tuesday, November 15, 2011 5:29 PM
To: Eric Hughes; Norman Lee
Cc: Wilson, Stuart
Subject: FW: File

Norm/Eric,

Is there any way you all can send me the most updated version of this file? If I'm not mistaken, what I've got (attached) is an outdated version. I'm wanting to use a couple of the graphs for a presentation, to show how we escalated our assumptions to get the Hockey Stick. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Monday, October 03, 2011 8:41 AM
To: Karavayev, Louanne; Wilson, Stuart
Cc: Eric Hughes
Subject: File

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

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From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Karavayev, Louanne; Eric Hughes
Subject: RE: File
Date: 11/16/2011 12:02:45 PM

Lou Anne,

That is correct. I reviewed the spreadsheets we used to develop the data and we did not adjust allocated Cost or CAPEX.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Wednesday, November 16, 2011 10:56 AM
To: Eric Hughes; Norman Lee
Cc: Wilson, Stuart
Subject: RE: File

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Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning

p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, November 15, 2011 5:57 PM
To: Karavayev, Louanne; Norman Lee
Cc: Wilson, Stuart
Subject: RE: File

Lou Anne;

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From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]

Sent: Monday, October 03, 2011 8:41 AM
To: Karavayev, Louanne; Wilson, Stuart
Cc: Eric Hughes
Subject: File

Thanks

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Karavayev, Louanne
Subject: When should I come
Date: 11/16/2011 4:46:43 PM

In the morning?

Eric Hughes
(o) 770-779-2855
(c) 404-849-7013
eric.hughes@abb.ventyx.com
Sent from my iPhone

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From: Wilson, Stuart
To: Karavayev, Louanne; 'eric.hughes@abb.ventyx.com'
Subject: Re: When should I come
Date: 11/16/2011 10:50:05 PM

Hey guys,

Sorry I've been missing you. One of the key things I'd like to accomplish in the morning is for Eric to pass along some of the things he did in Strategist for the LA study to Lou Anne.

We can talk more in the morning about specific times.

Stuart

From: Karavayev, Louanne
Sent: Wednesday, November 16, 2011 03:51 PM
To: Eric Hughes <Eric.Hughes@abb.ventyx.com>
Cc: Wilson, Stuart
Subject: RE: When should I come

Stuart is out of the office until tomorrow. Could you call him in the morning?

Lou Anne Karavayev
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To: Karavayev, Louanne
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Subject: When should I come

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(c) 404-849-7013

eric.hughes@abb.ventyx.com

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: When should I come
Date: 11/17/2011 9:41:38 AM

Stuart;

I am having some difficulty this morning, but that isn't going to get much better for the rest of the day. My back seized up on me yesterday and I am as stiff as a board today. Bummer for me. I am just now getting myself together this morning after a pretty rough night. I just need to get something to eat and then I can get together with you guys at any time.

Thanks.

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Sent: Wednesday, November 16, 2011 9:50 PM
To: Karavayev, Louanne; Eric Hughes
Subject: Re: When should I come

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From: Wilson, Stuart
To: Eric Hughes; Karavayev, Louanne
Subject: RE: When should I come
Date: 11/17/2011 10:19:46 AM

Hey Eric,

If you're able, why don't we shoot for 9:45 or so. I'd like for Lou Anne to understand more about what you guys did in Strategist to complete the LA study. For example&

1. How to link Strategist to Excel.
2. The mechanics of setting up deferral units.
3. The mechanics of a run once everything's set up.
4. Etc.

Just hoping she can get a general understanding&

I have a meeting at 10:00 but I don't have to be here. Lou Anne's number is 502/627-2563.

Thanks.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, November 17, 2011 8:42 AM
To: Wilson, Stuart; Karavayev, Louanne
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p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Wednesday, November 16, 2011 3:47 PM
To: Karavayev, Louanne
Cc: Wilson, Stuart
Subject: When should I come

In the morning?

Eric Hughes

(o) 770-779-2855

(c) 404-849-7013

eric.hughes@abb.ventyx.com

Sent from my iPhone

On Nov 16, 2011, at 11:03 AM, "Karavayev, Louanne" <Louanne.Karavayev@lge-ku.com> wrote:

Great, thanks for the quick reply!

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Wednesday, November 16, 2011 11:03 AM
To: Karavayev, Louanne; Eric Hughes
Cc: Wilson, Stuart
Subject: RE: File

Lou Anne,

That is correct. I reviewed the spreadsheets we used to develop the data and we did not adjust allocated Cost or CAPEX.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Wednesday, November 16, 2011 10:56 AM
To: Eric Hughes; Norman Lee
Cc: Wilson, Stuart
Subject: RE: File

Thanks, Eric. From what I can tell, it looks like we adjusted all of the costs EXCEPT allocated company overhead and CapEx. CapEx was included using the ECC, but it was not adjusted in any way with the logistic function. Is that correct? Just want to make sure I understand and remember correctly. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, November 15, 2011 5:57 PM
To: Karavayev, Louanne; Norman Lee
Cc: Wilson, Stuart
Subject: RE: File

Lou Anne;

This is the latest version that I have. I think it's from the week I was doing the runs (at least the time/date stamp matches up for that&). I hope this is more helpful. If you need help tomorrow let Norm know. I will be tied up from first thing in the morning until early afternoon. Then I start travel from Michigan to Louisville& I will be over there around 9 AM Thursday morning and can help some more then if need be. I was going to go over some things with Stuart and you in the morning, and then join the sales team for the afternoon session. See you then!

Eric

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Tuesday, November 15, 2011 5:29 PM
To: Eric Hughes; Norman Lee
Cc: Wilson, Stuart
Subject: FW: File

Norm/Eric,

Is there any way you all can send me the most updated version of this file? If I'm not mistaken, what I've got (attached) is an outdated version. I'm wanting to use a couple of the graphs for a presentation, to show how we escalated our assumptions to get the Hockey Stick. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Monday, October 03, 2011 8:41 AM
To: Karavayev, Louanne; Wilson, Stuart
Cc: Eric Hughes
Subject: File

Thanks

Norm

Norman R. Lee Jr.

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From: Karavayev, Louanne
To: Norman Lee; Eric Hughes
Subject: RE: File
Date: 11/22/2011 12:15:05 PM

Norm/Eric,

In looking more closely at Figures 1 and 2 in the report (2011 Generator Ratings), I've noticed a few errors. I'm pretty sure they are errors in the tables, not in the analysis, but I wanted to let you know. The totals associated with coal and Secondary CTs are wrong. They should be 2,653 MW and 99 MW respectively. The gas CT total is correct. It appears that the coal total is not including Brown 1 and 2, and several of the Secondary CTs' capacities seem to be referencing Haefling. As I said, it looks like these errors are simply linking errors in the spreadsheet. Please let me know if you have questions or would like me to take a look at the spreadsheet.
Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Wednesday, November 16, 2011 11:03 AM
To: Karavayev, Louanne; Eric Hughes
Cc: Wilson, Stuart
Subject: RE: File

Lou Anne,

That is correct. I reviewed the spreadsheets we used to develop the data and we did not adjust allocated Cost or CAPEX.

Thanks

Norm

Norman R. Lee Jr.

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www.ventyx.com <http://www.ventyx.com/>

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Wednesday, November 16, 2011 10:56 AM
To: Eric Hughes; Norman Lee
Cc: Wilson, Stuart
Subject: RE: File

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p (502) 627-2563
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e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Tuesday, November 15, 2011 5:57 PM
To: Karavayev, Louanne; Norman Lee
Cc: Wilson, Stuart
Subject: RE: File

Lou Anne;

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From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Tuesday, November 15, 2011 5:29 PM
To: Eric Hughes; Norman Lee
Cc: Wilson, Stuart
Subject: FW: File

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Lou Anne Karavayev
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f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Monday, October 03, 2011 8:41 AM
To: Karavayev, Louanne; Wilson, Stuart
Cc: Eric Hughes
Subject: File

Thanks

Norm

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=

From: Wilson, Stuart
To: 'Eric Hughes'; Norman Lee
Subject: LAS
Date: 12/1/2011 4:28:00 PM

Mrs. Hughes and Lee,

How's it going? I hope you had a good Thanksgiving. We met with our internal folks and gathered quite a bit of feedback regarding the final report. Overall, feedback is good they just want us to be sure to incorporate some key themes in the report. Are you guys (by chance) available tomorrow to talk? Lou Anne and I are available anytime tomorrow except from 10-11.

Stuart

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Norman Lee
Subject: RE: LAS
Date: 12/1/2011 4:30:00 PM

Norm;

What say we get with them in the morning? I need to set-up the training room for the Strategist class next week in the afternoon&

Eric

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 01, 2011 3:28 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: LAS

Mrs. Hughes and Lee,

How's it going? I hope you had a good Thanksgiving. We met with our internal folks and gathered quite a bit of feedback regarding the final report. Overall, feedback is good they just want us to be sure to incorporate some key themes in the report. Are you guys (by chance) available tomorrow to talk? Lou Anne and I are available anytime tomorrow except from 10-11.

Stuart

____

More details coming soon. =

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____

=

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Eric Hughes
Subject: RE: LAS
Date: 12/1/2011 5:32:01 PM

Mrs. Wilson and Mr. Karavayev. J

How about 9:30 in the morning?

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com <mailto:norman.lee@Ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 01, 2011 3:28 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: LAS

Mrs. Hughes and Lee,

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Stuart

____

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=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: LAS
Date: 12/1/2011 5:33:44 PM

Me thinks he's feeling giddy after the operation&   (See red below&)

From: Norman Lee
Sent: Thursday, December 01, 2011 4:32 PM
To: Wilson, Stuart; Eric Hughes
Cc: Karavayev, Louanne
Subject: RE: LAS

Mrs. Wilson and Mr. Karavayev.   J

How about 9:30 in the morning?

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 01, 2011 3:28 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: LAS

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Stuart

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: LAS
Date: 12/1/2011 5:42:35 PM

That sound fine to us. Call us at my office. Do you think we need a WebEx?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 01, 2011 4:41 PM
To: Eric Hughes; Karavayev, Louanne
Cc: Norman Lee
Subject: RE: LAS

J Sorry. I meant to say Messrs. Hughes and Lee. The plural of Mister is clearly not Mrs.!

We have a meeting at 10:00. If we need more time, can we reconvene at 11:00 (or whenever our 10:00 adjourns)?

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, December 01, 2011 4:34 PM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Norman Lee
Subject: RE: LAS

Me thinks he's feeling giddy after the operation& (See red below&)

From: Norman Lee
Sent: Thursday, December 01, 2011 4:32 PM
To: Wilson, Stuart; Eric Hughes
Cc: Karavayev, Louanne
Subject: RE: LAS

Mrs. Wilson and Mr. Karavayev. J

How about 9:30 in the morning?

Thanks

Norm

Norman R. Lee Jr.

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Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 01, 2011 3:28 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: LAS

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Stuart

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=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Paper
Date: 12/2/2011 10:29:38 AM

Norm and I are in my office now.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, December 02, 2011 9:27 AM
To: Eric Hughes; Norman Lee
Subject: Paper

We can talk from this version of the paper. We'll call you in Eric's office unless you specify otherwise.

Stuart

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Paper
Date: 12/2/2011 10:34:13 AM

LG&E/KU

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, December 02, 2011 9:27 AM
To: Eric Hughes; Norman Lee
Subject: Paper

We can talk from this version of the paper. We'll call you in Eric's office unless you specify otherwise.

Stuart

____

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Paper
Date: 12/2/2011 12:27:05 PM

Hey! Where are you guys?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, December 02, 2011 9:27 AM
To: Eric Hughes; Norman Lee
Subject: Paper

We can talk from this version of the paper. We'll call you in Eric's office unless you specify otherwise.

Stuart

=

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____

=

From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Paper
Date: 12/2/2011 12:37:42 PM

Norm and I are going to take lunch now. Yesterday was his birthday and I'm taking him out to our favorite Chinese place& I'll email again when we're back.

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, December 02, 2011 9:27 AM
To: Eric Hughes; Norman Lee
Subject: Paper

We can talk from this version of the paper. We'll call you in Eric's office unless you specify otherwise.

Stuart

=

From: Karavayev, Louanne
To: 'Norman Lee'
Subject: RE: Notes
Date: 12/7/2011 6:17:12 PM

Norm,
FYI, regarding the email below, I do not believe Stuart means for you to include the tables in the report (just the paragraph after the tables). Stuart, please correct me if I'm wrong.

Also, Stuart and I talked about what you and I discussed concerning renaming Capital Costs to Base Year ECC. Stuart said it would be best if we could include capital costs (not ECC) so that a reader can use that number to get an understanding about how much replacement capacity costs, and possibly calculate a meaningful $/kW. Does that make sense? Feel free to call and we can discuss. My calendar is open tomorrow except right after lunch. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Wilson, Stuart
Sent: Wednesday, December 07, 2011 3:24 PM
To: 'Norman Lee'
Cc: Karavayev, Louanne
Subject: Notes

Norm,

Here are the excerpts we discussed earlier today. Please call me or Lou Anne if you have any questions.

Stuart

<< File: 20111206_LAK_2007vs2011.docx >>

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Wilson, Stuart; Eric Hughes
Subject: RE: Checking In
Date: 12/9/2011 7:22:30 PM

Stuart,

I intend to have the next and hopefully final draft completed and sent to you by Monday morning. Eric will have to answer the billing issue.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com <mailto:norman.lee@Ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Friday, December 09, 2011 4:34 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: Checking In

Messrs.,

How are things going? Eric, I hope your week of training went well. Was checking in to see when we were going to receive the next draft of the report. I'd like to circulate it internally next week. We also need to make sure invoicing is coming along so we can process your invoice next week.

Stuart

____

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____

=

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Karavayev, Louanne
Subject: RE: LAS
Date: 12/14/2011 10:37:03 AM

Lou Anne,

The report in the report shows the load and resources once we have run our initial D run using the generic alternatives and running the R run to remove the new units and replace them with the deferral units. The removes the new units that were added by PRV. The attached rep file has the detailed report after the DRUN and tand the summary report after the RRUN that matches the report in the report.

Call me if you have any questions.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

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Cell: 770-905-6427

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From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Tuesday, December 13, 2011 5:34 PM
To: Norman Lee
Cc: Wilson, Stuart; Eric Hughes
Subject: RE: LAS

Norm,

Please see attached for our comments and edits.

I checked on the numbers in Figure 2 more completely, and found several errors. The correct values are listed below (if a value is not listed, it is correct in the table). It looks like, in several instances, the value for Spring/Fall was interpreted as Summer.

Unit	Winter	Summer
Ghent 1		479
Ghent 2	477	
Brown 6		146
Brown 7		146
Paddy's Run 13	183	147
Trimble County 5		160
Trimble County 6		160
Trimble County 7		160
Trimble County 8		160
Trimble County 9		160
Trimble County 10		160
Haefling 1-3	42	36
Ghent 3		477
Ghent 4		469
Dix Dam	26	26
Ohio Falls 1-8	34	52
Trimble County 2		549

Also, could you please send me the file that Figure 6 came from? I'm assuming it's a .REP? I'm trying to understand the totals, and it would be a lot easier if I could see all of the pieces. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969

e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, December 01, 2011 4:32 PM
To: Wilson, Stuart; Eric Hughes
Cc: Karavayev, Louanne
Subject: RE: LAS

Mrs. Wilson and Mr. Karavayev.   J

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Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Office:770-779-2816

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www.ventyx.com <http://www.ventyx.com/>

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 01, 2011 3:28 PM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: LAS

Mrs. Hughes and Lee,

How's it going? I hope you had a good Thanksgiving. We met with our internal folks and gathered quite a bit of feedback regarding the final report.

Overall, feedback is good they just want us to be sure to incorporate some key themes in the report. Are you guys (by chance) available tomorrow to talk? Lou Anne and I are available anytime tomorrow except from 10-11.

Stuart

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= Mindshare 2012 | May 8-10 | Orlando, FL =
More details coming soon. =

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Strategist Page 1

GENERATION AND FUEL MODULE

LOADS AND RESOURCES DETAIL REPORT

	2011	2015	2020	2025	2030	2035	2040
LOADS							
=====							
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
+ DSM ADJUSTMENTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-----------------	-------	-------	-------	-------	-------	-------	-------
FINAL PEAK	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
RESOURCES							
=========							
HYDRO GENERATION:							
1 DIX1-3 1	26.0	30.0	30.0	30.0	30.0	30.0	30.0
2 LOCK7 7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 OHIOF 18	52.0	64.0	64.0	64.0	64.0	64.0	64.0
TOTAL HYDRO	78.0	94.0	94.0	94.0	94.0	94.0	94.0
THERMAL GENERATION:							
1 BROWN 1	105.8	104.4	103.4	0.0	0.0	0.0	0.0
2 BROWN 2	165.5	163.0	161.3	0.0	0.0	0.0	0.0
3 BROWN 3	411.8	404.7	0.0	0.0	0.0	0.0	0.0
4 BROWN 5	133.0	133.0	0.0	0.0	0.0	0.0	0.0
5 BROWN 6	146.0	146.0	0.0	0.0	0.0	0.0	0.0

6	BROWN	7	146.0	145.9	0.0	0.0	0.0	0.0	0.0
7	BROWN	8	120.9	120.9	0.0	0.0	0.0	0.0	0.0
8	BROWN	9	121.0	120.9	0.0	0.0	0.0	0.0	0.0
9	BROWN	10	121.0	120.9	0.0	0.0	0.0	0.0	0.0
10	BROWN	11	120.6	120.2	0.0	0.0	0.0	0.0	0.0
11	CANE RUN	4	155.0	155.0	0.0	0.0	0.0	0.0	0.0
12	CANE RUN	5	168.0	168.0	0.0	0.0	0.0	0.0	0.0
13	CANE RUN	6	240.0	240.0	0.0	0.0	0.0	0.0	0.0
14	CR G/O	11	13.7	13.6	0.0	0.0	0.0	0.0	0.0
16	GHENT	1	479.1	479.1	473.0	0.0	0.0	0.0	0.0
17	GHENT	2	495.0	501.0	486.0	0.0	0.0	0.0	0.0
18	GHENT	3	476.7	476.7	470.9	470.9	470.9	470.9	470.9
19	GHENT	4	468.9	463.2	463.2	463.2	463.2	463.2	463.2
20	GRRIVER	3	68.0	68.0	0.0	0.0	0.0	0.0	0.0
21	GRRIVER	4	95.0	95.0	0.0	0.0	0.0	0.0	0.0
22	HAEFLNG1	1	35.5	35.1	0.0	0.0	0.0	0.0	0.0
23	MILL CRK	1	303.0	300.0	299.9	0.0	0.0	0.0	0.0
24	MILL CRK	2	301.0	297.0	297.0	0.0	0.0	0.0	0.0
25	MILL CRK	3	390.8	390.8	384.9	0.0	0.0	0.0	0.0
26	MILL CRK	4	476.8	466.0	466.0	466.0	466.0	466.0	466.0
27	OVEC	1	158.9	152.2	152.2	152.2	152.2	152.2	152.2
28	PADDYS	11	11.8	11.8	0.0	0.0	0.0	0.0	0.0
29	PADDYS	12	22.7	22.5	0.0	0.0	0.0	0.0	0.0
30	PADDYS	13	140.5	140.5	0.0	0.0	0.0	0.0	0.0
31	TC CT	5	160.0	159.9	0.0	0.0	0.0	0.0	0.0

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Strategist Page 2

GENERATION AND FUEL MODULE

LOADS AND RESOURCES DETAIL REPORT

			2011	2015	2020	2025	2030	2035	2040
THERMAL GENERATION:									
32	TC CT	6	160.0	160.0	0.0	0.0	0.0	0.0	0.0
33	TC CT	7	160.0	160.0	0.0	0.0	0.0	0.0	0.0
34	TC CT	8	160.0	160.0	0.0	0.0	0.0	0.0	0.0
35	TC CT	9	160.0	160.0	0.0	0.0	0.0	0.0	0.0
36	TC CT	10	160.0	160.0	0.0	0.0	0.0	0.0	0.0
37	TC1 75%	1	382.9	382.9	378.9	378.9	378.9	378.9	378.9
38	TC2 75%	2	548.7	548.7	548.7	548.7	548.7	548.7	548.7
41	TYRONE	3	71.0	71.0	0.0	0.0	0.0	0.0	0.0
44	ZORN	1	13.8	13.7	0.0	0.0	0.0	0.0	0.0
86	13D CT	1	0.0	165.0	165.0	165.0	165.0	165.0	165.0
87	13D CT	2	0.0	165.0	165.0	165.0	165.0	165.0	165.0
88	13D CT	3	0.0	165.0	165.0	165.0	165.0	165.0	165.0
89	CURTAIL	1	91.0	114.0	114.0	114.0	114.0	114.0	114.0
144	2x1C	144	0.0	0.0	0.0	0.0	0.0	0.0	640.3
145	LGSC	145	0.0	0.0	0.0	0.0	0.0	789.1	789.1
146	LGSC	146	0.0	0.0	0.0	789.1	789.1	789.1	789.1
147	LGSC	147	0.0	0.0	0.0	789.1	789.1	789.1	789.1
148	LGSC	148	0.0	0.0	0.0	789.1	789.1	789.1	789.1
149	SCCT	149	0.0	0.0	0.0	194.0	194.0	194.0	194.0

150	SCCT	150	0.0	0.0	0.0	194.0	194.0	194.0	194.0
151	SCCT	151	0.0	0.0	0.0	194.0	194.0	194.0	194.0
152	SCCT	152	0.0	0.0	0.0	194.0	194.0	194.0	194.0
153	SCCT	153	0.0	0.0	194.0	194.0	194.0	194.0	194.0
154	SCCT	154	0.0	0.0	194.0	194.0	194.0	194.0	194.0
155	2x1C	155	0.0	0.0	640.3	640.3	640.3	640.3	640.3
156	2x1C	156	0.0	0.0	640.3	640.3	640.3	640.3	640.3
157	2x1C	157	0.0	0.0	640.3	640.3	640.3	640.3	640.3
158	SCCT	158	0.0	0.0	194.0	194.0	194.0	194.0	194.0
159	SCCT	159	0.0	0.0	194.0	194.0	194.0	194.0	194.0
160	2x1C	160	0.0	0.0	640.3	640.3	640.3	640.3	640.3
TOTAL THERMAL			8159.5	8640.7	8631.8	9569.8	9569.8	10358.9	10999.2
TOTAL CAPACITY			8237.5	8734.7	8725.8	9663.8	9663.8	10452.9	11093.2

RESERVES
========

RESERVE (MW)	1480.5	1569.7	1227.8	1827.8	1395.8	1645.9	1753.2
RESERVE MARGIN PERCENT	21.91	21.91	16.37	23.33	16.88	18.69	18.77
CAPACITY MARGIN PERCENT	17.97	17.97	14.07	18.91	14.44	15.75	15.80

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Strategist Page 3

GENERATION AND FUEL MODULE

LOADS AND RESOURCES SUMMARY REPORT

	2011	2015	2020	2025	2030	2035	2040
LOADS							
=====							
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
+ DSM ADJUSTMENTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-----------------	-------	-------	-------	-------	-------	-------	-------
FINAL PEAK	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
RESOURCES							
=========							
TOTAL HYDRO	78.0	94.0	94.0	94.0	94.0	94.0	94.0
TOTAL THERMAL	8159.5	8640.7	8631.8	9569.8	9569.8	10358.9	10999.2
TOTAL CAPACITY	8237.5	8734.7	8725.8	9663.8	9663.8	10452.9	11093.2
RESERVES							
========							
RESERVE (MW)	1480.5	1569.7	1227.8	1827.8	1395.8	1645.9	1753.2
RESERVE MARGIN PERCENT	21.91	21.91	16.37	23.33	16.88	18.69	18.77
CAPACITY MARGIN PERCENT	17.97	17.97	14.07	18.91	14.44	15.75	15.80

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Strategist Page 1

GENERATION AND FUEL MODULE

LOADS AND RESOURCES SUMMARY REPORT

	2011	2015	2020	2025	2030	2035
LOADS						
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0
+ DSM ADJUSTMENTS	0.0	0.0	0.0	0.0	0.0	0.0
FINAL PEAK	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0
RESOURCES						
TOTAL HYDRO	78.0	94.0	94.0	94.0	94.0	94.0
TOTAL THERMAL	8159.5	8640.7	5294.3	3088.9	3088.9	3088.9
TOTAL CAPACITY	8237.5	8734.7	5388.3	3182.9	3182.9	3182.9
RESERVES						
RESERVE (MW)	1480.5	1569.7	-2109.7	-4653.1	-5085.1	-5624.1
RESERVE MARGIN PERCENT	21.91	21.91	-28.14	-59.38	-61.50	-63.86
CAPACITY MARGIN PERCENT	17.97	17.97	-39.15	-146.19	-159.76	-176.70

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Strategist Page 1

GENERATION AND FUEL MODULE

LOADS AND RESOURCES SUMMARY REPORT

	2011	2015	2020	2025	2030	2035	2040
LOADS							
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
PEAK BEFORE DSM	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
+ DSM ADJUSTMENTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FINAL PEAK	6757.0	7165.0	7498.0	7836.0	8268.0	8807.0	9340.0
RESOURCES							
TOTAL HYDRO	78.0	94.0	94.0	94.0	94.0	94.0	94.0
TOTAL THERMAL	8159.5	8640.7	5294.3	3088.9	3088.9	3088.9	3088.9
TOTAL CAPACITY	8237.5	8734.7	5388.3	3182.9	3182.9	3182.9	3182.9
RESERVES							
RESERVE (MW)	1480.5	1569.7	-2109.7	-4653.1	-5085.1	-5624.1	-6157.1
RESERVE MARGIN PERCENT	21.91	21.91	-28.14	-59.38	-61.50	-63.86	-65.92
CAPACITY MARGIN PERCENT	17.97	17.97	-39.15	-146.19	-159.76	-176.70	-193.44

From: Norman Lee <Norman.Lee@abb.ventyx.com>
To: Karavayev, Louanne; Wilson, Stuart
Subject: FW: LGKU
Date: 12/14/2011 11:02:15 AM

Lou Anne and Stuart,

Below is Eric's answer to your comment #6. Call if you want to discuss it.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

From: Eric Hughes
Sent: Wednesday, December 14, 2011 9:57 AM
To: Norman Lee
Subject: RE: LGKU

We chose 2042 because the calculations need a terminal point and that is beyond the end of our planning period. The choice of that terminal point is somewhat arbitrary, but the adjustments we made to the curves for all the units to adjust their shapes such that they have the same curvature at the same age as the Brown units (was it Brown 1,2 or 3 we used as the starting point for the coals?) and the same thing for gas units using the oldest one as the starting point to establish am consistent curvature.

So why 2042? Because the calculation of the logistics function impacts and the calculation of the ECC streams associated with CapEx both needed a consistent endpoint and that year was selected because it was beyond the end of the planning period, but not too far. We could have just as easily selected 2045 or even 2050. But in those cases we might not have seen a significant upswing in the logistics function impacts, or in the ECC stream impacts.

From: Norman Lee
Sent: Wednesday, December 14, 2011 9:47 AM
To: Eric Hughes
Subject: LGKU

Eric,

If you get a chance can you let me know the answer o Lou Annes Comment/question #6 concerning the year 2042?

I am taking care of all the other comments.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Call
Date: 12/15/2011 11:46:19 AM

Sorry; my boss called while we were waiting& Please call again and I will boot him off!

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 15, 2011 10:41 AM
To: Eric Hughes
Subject: RE: Call

Just tried to call you.

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, December 15, 2011 10:34 AM
To: Wilson, Stuart
Cc: Karavayev, Louanne
Subject: RE: Call

Are you calling us, or the reverse?

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Thursday, December 15, 2011 8:43 AM
To: Eric Hughes; Norman Lee
Cc: Karavayev, Louanne
Subject: Call

Are you guys available this morning? Maybe at 10:30?

Stuart

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except where the sender = specifically states them to be the views of Ventyx.

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From: Wilson, Stuart
To: 'Eric Hughes'
Subject: RE:
Date: 12/15/2011 3:53:51 PM

Eric,

That's great! That will make things run much more smoothly on our end.

Thank you.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@abb.ventyx.com]
Sent: Thursday, December 15, 2011 2:24 PM
To: Wilson, Stuart
Subject:

Stuart;

I am told that it IS possible to get you an invoice by the end of the day tomorrow. I have had Norm put in the hours on one of his timesheets that we were holding back an submit it. I will get that invoice to you as soon as I can get it!

=

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More details coming soon. =

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From: Wilson, Stuart
To: 'Norman Lee'; Karavayev, Louanne
Subject: RE: Laatest Changes.
Date: 12/15/2011 4:01:50 PM

Norm,

Thanks.

You missed a couple of Lou Anne's comments on the figures. So that we can get this out the door for internal review today, she's going to create a couple of the figures as Word tables. This way, it will be much easier to edit moving forward.

Everything else looks good I think.

Stuart

From: Norman Lee [mailto:Norman.Lee@abb.ventyx.com]
Sent: Thursday, December 15, 2011 2:50 PM
To: Karavayev, Louanne; Wilson, Stuart
Cc: Eric Hughes
Subject: Laatest Changes.

Stuart and Lou anne,

Here are the latest changes. Please look over the 10oad and resource report. If it is not right, I will be checking e-mail again around 6:30 pm.

My cell phone will be on most of the time.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:770-779-2816

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

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From: Eric Hughes <Eric.Hughes@abb.ventyx.com>
To: Wilson, Stuart
Subject: RE: Ventyx invoice 7101197747
Date: 12/16/2011 3:31:01 PM

Wow! I actually defeated the iron-bound accounting procedures!

From: Deanne Kremer
Sent: Friday, December 16, 2011 2:26 PM
To: Stuart.Wilson@lge-ku.com
Cc: Eric Hughes; Eric Olson
Subject: Ventyx invoice 7101197747

Stuart,

Attached is invoice 71011977474. If you have any questions, please let me know.

Deanne Kremer

Project Analyst

770-989-4283 (W)

deanne.kremer@abb.ventyx.com

www.ventyx.com

=

=

From: Norman Lee <Norman.Lee@ventyx.abb.com>
To: Karavayev, Louanne
Subject: Meeting
Date: 2/22/2012 5:26:42 PM

Lou Anne, Are you and Stuart available for a phone call Friday morning to discuss the changes to the report? Eric and I are both available between 9 and 10:30 . Let me know what is good for both of you.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

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Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com <mailto:norman.lee@Ventyx.com>

www.ventyx.com <http://www.ventyx.com/>

Note my new phone number!

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Orlando, FL =

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From: Karavayev, Louanne
To: 'Norman Lee'
Subject: RE: Meeting
Date: 2/22/2012 5:50:12 PM

Norm,

We are both available anytime between 9 and 10:30 (Stuart, please correct me if I'm wrong). Thanks!

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Norman Lee [mailto:Norman.Lee@ventyx.abb.com]
Sent: Wednesday, February 22, 2012 4:27 PM
To: Karavayev, Louanne
Cc: Eric Hughes
Subject: Meeting

Lou Anne, Are you and Stuart available for a phone call Friday morning to discuss the changes to the report? Eric and I are both available between 9 and 10:30 . Let me know what is good for both of you.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Office:678-830-1072

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E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

Note my new phone number!

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From: Norman Lee <Norman.Lee@ventyx.abb.com>
To: Karavayev, Louanne
Subject: Figure 22
Date: 2/28/2012 2:26:26 PM

Lou Anne,

Attached is the changed Figure 22. I have not asked Eric if he has finished his review. I will remind him again when we meet later this afternoon.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

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www.ventyx.com <http://www.ventyx.com/>

Note my new phone number!

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Figure 22:

Gas Fired Generating Assets	
Unit Name	**Projected End of Economic Life**
Brown 5	2040
Brown 6	2037
Brown 7	2038
Brown 8	2040 +
Brown 9	2040 +
Brown 10	2040 +
Brown 11	2036
Paddy's Run 13	2040 +
Trimble County 5	2036
Trimble County 6	2040 +
Trimble County 7	2036
Trimble County 8	2040 +
Trimble County 9	2036
Trimble County 10	2040 +

From: Eric Hughes <Eric.Hughes@ventyx.abb.com>
To: Karavayev, Louanne; Norman Lee
Subject: RE: Life Assessment Study
Date: 2/28/2012 4:17:44 PM

I am just fine with this now, Assuming the few things we identified last week are also corrected. Thanks!

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Monday, February 13, 2012 3:41 PM
To: Eric Hughes; Norman Lee
Cc: Wilson, Stuart
Subject: Life Assessment Study

Eric/Norm,

Per our voicemail/conversation, please see attached for an edited version of the Life Assessment Study. If possible, we'd like to discuss the changes later this week or next, so please let us know when you've had a chance to read the document. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

____

=

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From: Karavayev, Louanne
To: 'Norman Lee'
Subject: Phone Call Request
Date: 3/1/2012 2:11:50 PM

Norm,
Stuart and I talked and decided we do not need you to send us anything else. I will be sending the report to you and Eric in a few minutes. I apologize for interrupting your day. Thanks,

Lou Anne Karavayev
LG&E and KU
Generation Planning
p (502) 627-2563
f (502) 217-4969
e LouAnne.Karavayev@lge-ku.com

From: Eric Hughes <Eric.Hughes@ventyx.abb.com>
To: Karavayev, Louanne
Subject: RE: Life Assessment Study Report
Date: 3/1/2012 2:29:36 PM

I will check on that last one (p38), but the others are as I remember them.

From: Karavayev, Louanne [mailto:Louanne.Karavayev@lge-ku.com]
Sent: Thursday, March 01, 2012 1:26 PM
To: Eric Hughes
Cc: Wilson, Stuart; Norman Lee
Subject: Life Assessment Study Report

Eric,

Please see attached for 2 versions of the report confidential and public. In the confidential version, the appendices are highlighted in yellow. In the public version, they are blacked out. Per your suggestions last Friday, the only changes we've made to the report (besides creating the confidential and public versions) are:

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From: Eric Hughes <Eric.Hughes@ventyx.abb.com>
To: Wilson, Stuart
Subject: RE: Life Assessment Study Report
Date: 3/6/2012 10:56:09 AM

Stuart;

Unfortunately I have been swamped this last week and haven't had time to check that formula. There is nothing else that needs checking/changing/etc. as far as we are concerned. However, the holdup on my end is that Norm's father died last week and he is currently on bereavement leave and will not be back until Friday. I will have him check that formula before I suck him back into the project work I am covering for both of us during his absence!

Eric

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, March 06, 2012 9:24 AM
To: Eric Hughes
Subject: RE: Life Assessment Study Report

Hey Eric,

Are you guys getting close to passing along the final documents? Lou Anne updated the formula on page 38 to be consistent with the workbook that you guys provided several months ago that demonstrates the relationship between the ECC and annual carrying charges.

Hope you're doing OK.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@ventyx.abb.com]
Sent: Thursday, March 01, 2012 1:30 PM
To: Karavayev, Louanne
Cc: Wilson, Stuart; Norman Lee
Subject: RE: Life Assessment Study Report

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From: Wilson, Stuart
To: 'Eric Hughes'
Subject: RE: Life Assessment Study Report
Date: 3/6/2012 12:31:06 PM

I understand. We were sorry to hear about Norm's father on Friday. I'm certain the formula change is OK but you guys need to be equally certain. Hopefully, we'll receive the final docs on Friday.

Thanks. Hang in there.

Stuart

From: Eric Hughes [mailto:Eric.Hughes@ventyx.abb.com]
Sent: Tuesday, March 06, 2012 9:56 AM
To: Wilson, Stuart
Cc: Norman Lee; Karavayev, Louanne
Subject: RE: Life Assessment Study Report

Stuart;

Unfortunately I have been swamped this last week and haven't had time to check that formula. There is nothing else that needs checking/changing/etc. as far as we are concerned. However, the holdup on my end is that Norm's father died last week and he is currently on bereavement leave and will not be back until Friday. I will have him check that formula before I suck him back into the project work I am covering for both of us during his absence!

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To: Eric Hughes
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From: Eric Hughes [mailto:Eric.Hughes@ventyx.abb.com]
Sent: Thursday, March 01, 2012 1:30 PM
To: Karavayev, Louanne
Cc: Wilson, Stuart; Norman Lee
Subject: RE: Life Assessment Study Report

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Cc: Wilson, Stuart; Norman Lee
Subject: Life Assessment Study Report

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From: Norman Lee <Norman.Lee@ventyx.abb.com>
To: Wilson, Stuart; Karavayev, Louanne
Subject: RE: Life Assessment Study Report
Date: 3/9/2012 12:31:29 PM

Stuart and Lou Anne,

The change you made to the formula is correct and OK with us. Thanks for making the correction.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

Ventyx, an ABB Company

Office:678-830-1072

Cell: 770-905-6427

E-mail: norman.lee@Ventyx.com

www.ventyx.com <http://www.ventyx.com/>

Note my new phone number!

From: Wilson, Stuart [mailto:Stuart.Wilson@lge-ku.com]
Sent: Tuesday, March 06, 2012 11:31 AM
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Cc: Norman Lee; Karavayev, Louanne
Subject: RE: Life Assessment Study Report

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Sent: Thursday, March 01, 2012 1:30 PM
To: Karavayev, Louanne

Cc: Wilson, Stuart; Norman Lee
Subject: RE: Life Assessment Study Report

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Subject: Life Assessment Study Report

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From: Wilson, Stuart
To: 'Norman Lee'; Karavayev, Louanne
Subject: RE: Life Assessment Study Report
Date: 3/9/2012 12:33:29 PM

Great. Thanks. At your next convenience, could you officially' send us the final versions of the document.

Thanks.

Stuart

From: Norman Lee [mailto:Norman.Lee@ventyx.abb.com]
Sent: Friday, March 09, 2012 11:31 AM
To: Wilson, Stuart; Karavayev, Louanne
Cc: Eric Hughes
Subject: RE: Life Assessment Study Report

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Thanks

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Subject: RE: Life Assessment Study Report

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Subject: RE: Life Assessment Study Report

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From: Wilson, Stuart
To: 'Norman Lee'; Karavayev, Louanne; Eric Hughes
Subject: RE: Life Assessment Study Report
Date: 3/9/2012 2:58:30 PM

Thanks, Norm. Really appreciate it.

Stuart

From: Norman Lee [mailto:Norman.Lee@ventyx.abb.com]
Sent: Friday, March 09, 2012 11:56 AM
To: Karavayev, Louanne; Eric Hughes
Cc: Wilson, Stuart
Subject: RE: Life Assessment Study Report

Stuart and Lou Anne,

Attached are the final documents.

Thanks

Norm

Norman R. Lee Jr.

Principal Consultant - Advisors

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Office:678-830-1072

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Attachment pages provided under confidential seal have been removed.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-43

Responding Witness: John J. Spanos

Q1-43. Refer to page 13 line 18 through page 14 line 2 of Mr. Spanos' Direct Testimony.

a. Please confirm that the approved depreciation rates do not include a "dismantlement" component. If they do, then please provide the approved depreciation rates disaggregated into depreciation rates based on remaining net plant, interim net salvage, and final net salvage. Provide the workpapers from the study(ies) relied on for this disaggregation.

b. Please identify all prior Commission orders for the Company in which the Commission addressed and affirmatively allowed a "dismantlement" component in the depreciation rates.

A1-43. a. The net salvage estimates upon which the approved depreciation rates are based did not segregate interim and terminal removal costs. Instead, the estimates applied to the full plant balance – that is, both assets expected to be retired as interim retirements and those expected to be retired as final retirements. As such, the approved depreciation rates indirectly include a dismantlement component. However, there is not a specifically identified component of the depreciation rates that can be provided as a separate dismantlement component.

b. As discussed in part a), given that the net salvage estimates in the prior study were applied to plant that will be retired as interim and final retirements, the approved depreciation rates indirectly contain a dismantlement component. This was common practice for most utilities across the United States, including Kentucky. For example, see Case No. 2005-00042, *In the Matter of: An Adjustment of the Gas Rates of The Union Light, Heat and Power Company*, Order dated December 22, 2005; Case No. 2009-00329, *In the Matter of: Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Approval of Depreciation Rates for Trimble County Unit 2*, Order dated March 19, 2010; Case No. 2009-00548, *In the*

Matter of: Application of Kentucky Utilities Company for an Adjustment of Base Rates, Order dated July 30, 2010; Case No. 2009-00549, *In the Matter of: Application of Louisville Gas and Electric Company for an Adjustment of Electric and Gas Base Rates*, Order dated July 30, 2010.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-44

Responding Witness: John J. Spanos

Q1-44. Refer to page 13 lines 7-17 of Mr. Spanos' Direct Testimony.

a. On line 10, Mr. Spanos refers to "studies for other utilities." Please provide a copy of all such studies and provide a description of how those studies were utilized specifically to determine the dismantlement component for the Company.

b. On line 10, Mr. Spanos refers to "cost estimates" of the Company. Please provide a copy of all such cost estimates and provide a description of how those studies were utilized specifically to determine the dismantlement component for the Company.

c. On line 11, Mr. Spanos states that "it was determined that dismantlement or decommissioning costs for steam production facilities . . . " By whom was "it" determined? Provide the names, positions, and affiliations, of the specific individuals who made this determination. In addition, please provide all correspondence, notes, and all other writings that address this determination in any manner.

A1-44. a. The attached documents represent studies of other electric utilities which have utilized the same methodology as that set forth on page 13, line 10 of Mr. Spanos' Direct Testimony.

b. Please see the attachments B-1 and B-2. Attachment B-1 presents cost estimates for the dismantlement of the Canal and Paddy's Run Power Plants. Attachment B-2 presents an analysis of net salvage data in the years that the Paddy's Run Power Plant and Cane Units 1, 2 and 3 were retired. The costs in these years would be only for the partial dismantlement of these locations, as Paddy's Run's dismantlement is planned to occur through 2019, and Cane Run Units 1, 2 and 3 will not be fully dismantled until the other units on the same site are retired.

c. The following individuals were involved in the decision to use the proposed terminal net salvage estimates for production plant:

John Spanos, Sr. VP, Gannett Fleming
Ned Allis, Analyst, Gannett Fleming
Lonnie Bellar – Vice President, State Regulation and Rates, LG&E-KU
Stuart Wilson – Manager, Generation Planning, LG&E-KU
Scott Straight – Director, Project Engineering, LG&E-KU
John Voyles – Vice President, Transmission and Generation Services, LG&E-KU

There were no other writings, notes or correspondence regarding dismantlement addressed from this group.

NEVADA POWER COMPANY
d/b/a NV Energy

SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2010

ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
INTANGIBLE PLANT									
303 SOFTWARE		10 - SQ	0	165,884,586	86,508,124	79,376,462	10.00 [1]	16,588,459	7.4
303.2 RRSU UPGRADES		35 - SQ	0	22,557,584	12,342,108	10,215,476	2.86 [1]	645,147	30.9
TOTAL INTANGIBLE PLANT				**188,442,171**	**98,850,232**	**89,591,938**	**9.15**	**17,233,606**	
STEAM PRODUCTION PLANT									
310.2 LAND RIGHTS									
CLARK COMMON	06-2034	Square	0	1,001,488	407,011	594,477	2.53	25,297	23.5
REID GARDNER UNIT 1	06-2023	Square	0	73,735	5,936	67,799	7.36	5,424	12.5
REID GARDNER UNIT 4	06-2023	Square	0	33,758	2,856	30,902	7.33	2,473	12.5
REID GARDNER COMMON	06-2023	Square	0	268	268	-	0.00	-	0.0
SUNRISE UNIT 1	12-2011	Square	0	219,906	92,676	127,230	57.86	127,230	1.0
TOTAL ACCOUNT 310.2				*1,329,156*	*508,747*	*820,408*	*12.07*	*160,424*	
311 STRUCTURES AND IMPROVEMENTS									
CLARK UNIT 9	06-2033	75 - L1	(22)	1,425,071	743,725	994,861	3.29	46,829	21.2
CLARK UNIT 10	06-2034	75 - L1	(26)	554,160	306,614	391,627	3.30	18,266	21.4
CLARK COMMON	06-2034	75 - L1	(8)	19,271,820	7,755,004	13,058,562	3.10	597,176	21.9
NAVAJO UNIT 1	06-2024	75 - L1	(13)	6,757,818	5,225,965	2,410,369	2.80	189,393	12.7
NAVAJO UNIT 2	06-2025	75 - L1	(14)	4,907,006	3,355,199	2,238,788	3.33	163,538	13.7
NAVAJO UNIT 3	06-2026	75 - L1	(12)	7,109,398	5,157,651	2,804,875	2.72	193,331	14.5
NAVAJO COMMON	06-2026	75 - L1	(2)	4,403,793	622,469	3,869,400	5.77	254,280	15.2
REID GARDNER UNIT 1	06-2023	75 - L1	(30)	3,690,011	3,298,376	1,498,638	3.43	126,626	11.8
REID GARDNER UNIT 2	06-2023	75 - L1	(27)	2,734,551	2,124,883	1,347,997	4.09	111,877	12.0
REID GARDNER UNIT 3	06-2023	75 - L1	(22)	5,704,086	4,720,683	2,238,302	3.30	188,236	11.9
REID GARDNER UNIT 4	06-2023	75 - L1	(18)	20,911,010	14,676,985	9,998,007	4.02	840,341	11.9
REID GARDNER COMMON	06-2023	75 - L1	(4)	61,933,818	18,686,753	45,724,418	6.00	3,716,647	12.3
SUNRISE UNIT 1	12-2011	75 - L1	(15)	3,238,246	3,020,086	703,897	21.74	703,897	1.0
TOTAL ACCOUNT 311				*142,640,788*	*69,694,393*	*87,279,741*	*5.01*	*7,150,437*	

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ACCOUNT (1)	PROBABLE RETIREMENT DATE (2)	SURVIVOR CURVE (3)	NET SALVAGE (4)	ORIGINAL COST (5)	BOOK RESERVE (6)	FUTURE ACCRALS (7)	CALCULATED ANNUAL ACCRUAL RATE (8)	CALCULATED ANNUAL ACCRUAL AMOUNT (9)	COMPOSITE REMAINING LIFE (10)
312 BOILER PLANT EQUIPMENT									
CLARK UNIT 9	06-2033	75 - R1.5	(18)	21,644,283	11,021,119	14,519,135	3.14	679,318	21.4
CLARK UNIT 10	06-2034	75 - R1.5	(21)	23,068,845	12,121,753	15,791,550	3.07	708,351	22.3
CLARK COMMON	06-2034	75 - R1.5	(3)	3,751,214	1,252,924	2,610,826	3.10	116,324	22.4
NAVAJO UNIT 1	06-2024	75 - R1.5	(9)	28,115,288	16,407,864	14,237,800	3.87	1,088,390	13.1
NAVAJO UNIT 2	06-2025	75 - R1.5	(10)	29,978,861	17,043,504	15,933,244	3.80	1,140,209	14.0
NAVAJO UNIT 3	06-2026	75 - R1.5	(7)	42,316,068	23,242,451	22,035,742	3.49	1,474,952	14.9
NAVAJO COMMON	06-2026	75 - R1.5	(2)	19,546,658	11,492,339	8,445,252	2.88	562,384	15.0
REID GARDNER UNIT 1	06-2023	75 - R1.5	(21)	50,694,502	22,484,003	38,856,345	6.26	3,174,335	12.2
REID GARDNER UNIT 2	06-2023	75 - R1.5	(19)	51,618,906	18,926,648	42,499,850	6.72	3,471,363	12.2
REID GARDNER UNIT 3	06-2023	75 - R1.5	(13)	83,147,184	57,010,795	36,945,523	3.63	3,017,561	12.2
REID GARDNER UNIT 4	06-2023	75 - R1.5	(9)	89,224,839	55,849,059	41,406,016	3.80	3,392,984	12.2
REID GARDNER COMMON	06-2023	75 - R1.5	(1)	43,210,011	26,661,181	16,980,930	3.20	1,383,448	12.3
SUNRISE UNIT 1	12-2011	75 - R1.5	(15)	8,220,433	8,165,659	1,287,838	15.67	1,287,839	1.0
TOTAL ACCOUNT 312				*494,537,093*	*281,679,299*	*271,550,051*	*4.35*	*21,497,458*	
314 TURBOGENERATOR UNITS									
CLARK UNIT 9	06-2033	80 - R1	(20)	31,090,145	16,290,982	21,017,192	3.17	987,050	21.3
CLARK UNIT 10	06-2034	80 - R1	(22)	21,964,638	10,899,364	15,897,494	3.26	716,979	22.2
CLARK COMMON	06-2034	80 - R1	(5)	22,366,290	12,629,182	10,855,422	2.21	493,659	22.0
NAVAJO UNIT 1	06-2024	80 - R1	(11)	6,878,505	5,751,016	1,884,125	2.11	144,849	13.0
NAVAJO UNIT 2	06-2025	80 - R1	(11)	5,854,079	5,328,493	1,169,535	1.44	84,332	13.9
NAVAJO UNIT 3	06-2026	80 - R1	(9)	6,163,024	5,657,112	1,060,584	1.17	71,866	14.8
NAVAJO COMMON	06-2026	80 - R1	(2)	1,614,926	605,398	1,041,827	4.29	69,314	15.0
REID GARDNER UNIT 1	06-2023	80 - R1	(22)	14,183,154	7,128,770	10,174,678	5.89	835,194	12.2
REID GARDNER UNIT 2	06-2023	80 - R1	(20)	18,593,152	11,911,924	10,399,858	4.59	853,600	12.2
REID GARDNER UNIT 3	06-2023	80 - R1	(14)	22,093,672	16,751,006	8,435,780	3.14	693,076	12.2
REID GARDNER UNIT 4	06-2023	80 - R1	(11)	21,770,229	14,069,720	10,095,234	3.83	833,375	12.1
REID GARDNER COMMON	06-2023	80 - R1	(2)	459,657	298,817	170,033	3.03	13,927	12.2
SUNRISE UNIT 1	12-2011	80 - R1	(15)	17,680,392	15,735,877	4,596,573	26.00	4,596,572	1.0
TOTAL ACCOUNT 314				*190,711,861*	*123,057,661*	*96,798,335*	*5.45*	*10,393,793*	

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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
315 ACCESSORY ELECTRIC EQUIPMENT									
CLARK UNIT 9	06-2033	75 - R2.5	(18)	7,415,991	3,579,163	5,171,707	3.20	237,149	21.8
CLARK UNIT 10	06-2034	75 - R2.5	(20)	8,428,343	3,361,410	6,752,601	3.51	296,010	22.8
CLARK COMMON	06-2034	75 - R2.5	(1)	4,529,794	2,670,632	1,904,460	1.82	82,571	23.1
NAVAJO UNIT 1	06-2024	75 - R2.5	(9)	3,339,628	2,737,894	902,301	2.08	69,497	13.0
NAVAJO UNIT 2	06-2025	75 - R2.5	(10)	2,791,851	2,214,690	856,346	2.20	61,536	13.9
NAVAJO UNIT 3	06-2026	75 - R2.5	(7)	8,029,411	4,939,091	3,652,379	3.03	242,931	15.0
NAVAJO COMMON	06-2026	75 - R2.5	0	293,353	27,524	265,829	5.90	17,300	15.4
REID GARDNER UNIT 1	06-2023	75 - R2.5	(20)	3,481,677	2,105,204	2,072,808	4.83	168,079	12.3
REID GARDNER UNIT 2	06-2023	75 - R2.5	(19)	4,024,010	2,633,009	2,155,563	4.32	174,006	12.4
REID GARDNER UNIT 3	06-2023	75 - R2.5	(13)	7,046,257	5,506,101	2,456,170	2.87	201,959	12.2
REID GARDNER UNIT 4	06-2023	75 - R2.5	(9)	23,552,078	6,715,246	18,956,519	6.50	1,532,056	12.4
REID GARDNER COMMON	06-2023	75 - R2.5	0	780,025	170,033	609,992	6.31	49,251	12.4
SUNRISE UNIT 1	12-2011	75 - R2.5	(15)	1,121,216	914,738	374,660	33.42	374,659	1.0
TOTAL ACCOUNT 315				*74,833,635*	*37,574,735*	*46,131,335*	*4.69*	*3,507,004*	
316 MISCELLANEOUS POWER PLANT EQUIPMENT									
CLARK UNIT 9	06-2033	40 - O1	(11)	944,142	738,933	309,064	1.77	16,751	18.5
CLARK COMMON	06-2034	40 - O1	0	2,314,239	923,824	1,390,415	3.12	72,265	19.2
NAVAJO UNIT 1	06-2024	40 - O1	(6)	933,071	850,880	138,175	1.25	11,704	11.8
NAVAJO UNIT 2	06-2025	40 - O1	(6)	1,130,254	1,049,538	148,531	1.04	11,809	12.6
NAVAJO UNIT 3	06-2026	40 - O1	(4)	996,000	1,000,514	35,326	0.26	2,588	13.6
NAVAJO COMMON	06-2026	40 - O1	0	4,687,472	1,084,850	3,602,622	5.54	259,809	13.9
REID GARDNER UNIT 1	06-2023	40 - O1	(16)	553,584	545,797	96,360	1.54	8,550	11.3
REID GARDNER UNIT 2	06-2023	40 - O1	(15)	333,176	324,339	58,813	1.56	5,209	11.3
REID GARDNER UNIT 3	06-2023	40 - O1	(10)	433,951	445,716	31,630	0.65	2,804	11.3
REID GARDNER UNIT 4	06-2023	40 - O1	(7)	1,339,148	1,356,827	76,061	0.50	6,661	11.4
REID GARDNER COMMON	06-2023	40 - O1	0	3,497,317	2,866,031	631,286	1.58	55,242	11.4
SUNRISE UNIT 1	12-2011	40 - O1	(15)	572,267	562,983	95,124	16.62	95,121	1.0
TOTAL ACCOUNT 316				*17,734,622*	*11,750,232*	*6,613,407*	*3.09*	*548,513*	
TOTAL STEAM PRODUCTION PLANT				**921,787,155**	**524,265,067**	**509,193,277**	**4.69**	**43,257,629**	

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OTHER PRODUCTION PLANT									
340.2 LAND RIGHTS									
HARRY ALLEN COMMON	06-2046	Square	0	1,168,562	383,841	784,721	1.89	22,105	35.5
TOTAL ACCOUNT 340.2				*1,168,562*	*383,841*	*784,721*		*22,105*	
341 STRUCTURES AND IMPROVEMENTS									
CLARK UNIT 4	06-2020	75 - L0	(11)	21,953	23,257	1,111	0.55	121	9.2
CLARK UNIT 5	06-2034	75 - L0	(29)	1,227,856	1,221,148	362,786	1.43	17,518	20.7
CLARK UNIT 6	06-2034	75 - L0	(37)	1,225,810	1,218,252	461,107	1.82	22,272	20.7
CLARK UNIT 7	06-2033	75 - L0	(29)	1,096,392	1,050,065	364,281	1.66	18,240	20.0
CLARK UNIT 8	06-2033	75 - L0	(26)	1,664,413	619,528	1,477,632	4.25	70,800	20.9
CLARK PEAKER UNITS 11-22	06-2038	75 - L0	(3)	21,478,518	67,793	22,055,081	4.07	874,192	25.2
CLARK COMMON	06-2034	75 - L0	(2)	4,148,887	2,047,548	2,184,317	2.43	100,798	21.7
HARRY ALLEN UNIT 3	06-2025	75 - L0	(5)	858,642	230,722	670,852	5.67	48,710	13.8
HARRY ALLEN COMBINED CYCLE[2]	06-2046	75 - L0	(5)	52,427,122	-	55,048,479	3.33	1,747,571	31.5
HARRY ALLEN COMMON	06-2046	75 - L0	(3)	10,086,197	4,473,458	5,915,325	1.87	188,783	31.3
SUNRISE UNIT 2	12-2011	75 - L0	(29)	483,870	206,106	418,087	86.40	418,088	1.0
LENZIE UNIT 1	06-2041	75 - L0	(7)	1,806,031	261,223	1,671,230	3.37	60,888	27.4
LENZIE UNIT 2	06-2041	75 - L0	(8)	1,471,756	184,489	1,405,007	3.48	51,182	27.5
LENZIE COMMON	06-2041	75 - L0	(2)	21,786,783	2,512,337	19,710,182	3.29	717,287	27.5
SILVERHAWK	06-2039	75 - L0	(4)	26,336,959	3,938,798	23,451,640	3.44	906,771	25.9
GOODSPRINGS	06-2035	75 - L0	(7)	4,244,834	-	4,541,973	4.67	198,080	22.9
TOTAL ACCOUNT 341				*150,366,024*	*18,054,724*	*139,739,090*	*3.62*	*5,441,301*	
342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES									
CLARK UNIT 4	06-2020	50 - S0	(11)	247,815	277,285	(2,210)	0.00	-	0.0
CLARK UNIT 5	06-2034	50 - S0	(27)	2,071,964	2,658,841	(27,447)	0.00	-	0.0
CLARK UNIT 6	06-2034	50 - S0	(34)	1,822,451	1,546,753	895,331	2.46	44,847	20.0
CLARK UNIT 7	06-2033	50 - S0	(27)	1,700,458	1,937,334	222,248	0.64	10,950	20.3
CLARK UNIT 8	06-2033	50 - S0	(24)	461,593	371,431	200,944	2.16	9,960	20.2
HARRY ALLEN COMBINED CYCLE[2]	06-2046	50 - S0	(5)	154,722,112	-	162,458,218	3.39	5,238,898	31.0
HARRY ALLEN COMMON	06-2046	50 - S0	(5)	93,435	64,376	33,731	1.30	1,216	27.7
SUNRISE UNIT 2	12-2011	50 - S0	(29)	2,562,272	2,209,557	1,095,774	42.77	1,095,773	1.0
LENZIE UNIT 1	06-2041	50 - S0	(8)	75,861,840	7,719,115	74,211,672	3.65	2,770,120	26.8
LENZIE UNIT 2	06-2041	50 - S0	(8)	59,313,397	4,912,212	59,146,257	3.72	2,207,766	26.8
LENZIE COMMON	06-2041	50 - S0	(3)	9,439,787	901,105	8,821,875	3.48	328,872	26.8
HIGGINS	06-2039	50 - S0	(6)	242,337	-	256,878	4.07	9,853	26.1
TOTAL ACCOUNT 342				*308,539,460*	*22,598,009*	*307,313,271*	*3.80*	*11,718,255*	

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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
343 PRIME MOVERS									
SILVERHAWK	06-2039	40 - R2.5	(7)	98,034,442	15,367,972	89,528,881	3.51	3,439,450	26.0
TOTAL ACCOUNT 343				*98,034,442*	*15,367,972*	*89,528,881*		*3,439,450*	
344 GENERATORS									
CLARK UNIT 4	06-2020	40 - R2.5	(14)	6,080,812	5,931,988	1,000,138	2.04	124,155	8.1
CLARK UNIT 5	06-2034	40 - R2.5	(29)	32,337,270	13,166,034	28,549,045	4.36	1,409,934	20.2
CLARK UNIT 6	06-2034	40 - R2.5	(35)	26,734,293	15,185,428	20,905,868	3.78	1,011,291	20.7
CLARK UNIT 7	06-2033	40 - R2.5	(30)	32,089,151	12,924,528	28,791,368	4.53	1,453,793	19.8
CLARK UNIT 8	06-2033	40 - R2.5	(26)	40,493,731	21,360,138	29,661,964	3.59	1,451,783	20.4
CLARK PEAKER UNITS 11-22	06-2038	40 - R2.5	(6)	315,849,778	32,505,396	302,295,369	3.73	11,794,523	25.6
CLARK COMMON	06-2034	40 - R2.5	(6)	13,693,172	4,847,426	9,667,336	3.39	464,206	20.8
HARRY ALLEN UNIT 3	06-2025	40 - R2.5	(7)	30,995,176	18,570,121	14,594,717	3.48	1,079,708	13.5
HARRY ALLEN UNIT 4	06-2036	40 - R2.5	(8)	36,469,643	3,978,498	35,408,716	4.09	1,492,077	23.7
HARRY ALLEN COMBINED CYCLE[2]	06-2046	40 - R2.5	(8)	409,160,469	-	441,893,306	3.40	13,931,063	31.7
HARRY ALLEN COMMON	06-2046	40 - R2.5	(9)	58,669	22,822	41,127	2.29	1,343	30.6
SUNRISE UNIT 2	12-2011	40 - R2.5	(29)	9,895,899	8,653,990	4,111,719	41.55	4,111,720	1.0
LENZIE UNIT 1	06-2041	40 - R2.5	(11)	131,601,430	12,374,394	133,703,193	3.69	4,862,432	27.5
LENZIE UNIT 2	06-2041	40 - R2.5	(11)	114,390,364	10,444,250	116,529,054	3.71	4,240,623	27.5
LENZIE COMMON	06-2041	40 - R2.5	(5)	15,334,185	1,080,523	15,020,372	3.51	537,929	27.9
SILVERHAWK	06-2039	40 - R2.5	(7)	155,843,674	30,810,892	135,941,839	3.34	5,212,152	26.1
GOODSPRINGS	06-2035	40 - R2.5	(8)	18,033,807	71,402	19,405,110	4.60	829,278	23.4
HIGGINS	06-2039	40 - R2.5	(8)	471,976,027	107,272,127	402,461,982	3.23	15,231,710	26.4
TOTAL ACCOUNT 344				*1,861,037,549*	*299,199,957*	*1,739,982,223*	*3.72*	*69,239,720*	
345 ACCESSORY ELECTRIC EQUIPMENT									
CLARK UNIT 4	06-2020	45 - R2.5	(12)	62,250	56,862	12,858	2.29	1,425	9.0
CLARK UNIT 5	06-2034	45 - R2.5	(31)	1,661,489	501,791	1,674,760	4.59	76,180	22.0
CLARK UNIT 6	06-2034	45 - R2.5	(37)	989,089	561,728	793,324	3.77	37,240	21.3
CLARK UNIT 7	06-2033	45 - R2.5	(27)	1,629,448	1,281,996	787,403	2.45	39,924	19.7
CLARK UNIT 8	06-2033	45 - R2.5	(26)	673,909	325,218	523,908	3.74	25,225	20.8
CLARK PEAKER UNITS 11-22	06-2038	45 - R2.5	(4)	83,470,097	1,025	86,807,876	3.99	3,331,066	26.1
CLARK COMMON	06-2034	45 - R2.5	(2)	633,185	127,297	518,551	3.66	23,154	22.4
HARRY ALLEN UNIT 3	06-2025	45 - R2.5	(6)	7,448,856	4,604,605	3,291,183	3.21	239,115	13.8
HARRY ALLEN COMBINED CYCLE[2]	06-2046	45 - R2.5	(6)	44,873,945	-	47,566,382	3.26	1,463,131	32.5
HARRY ALLEN COMMON	06-2046	45 - R2.5	(6)	3,662,823	1,391,925	2,490,667	2.17	79,391	31.4
SUNRISE UNIT 2	12-2011	45 - R2.5	(29)	835,243	809,825	267,639	32.04	267,639	1.0
LENZIE UNIT 1	06-2041	45 - R2.5	(8)	40,290,491	6,020,658	37,493,073	3.30	1,329,069	28.2
LENZIE UNIT 2	06-2041	45 - R2.5	(9)	35,872,945	3,468,223	35,633,287	3.52	1,263,144	28.2
LENZIE COMMON	06-2041	45 - R2.5	(3)	770,614	70,979	722,753	3.28	25,278	28.6
SILVERHAWK	06-2039	45 - R2.5	(5)	16,945,331	2,848,864	14,943,733	3.31	560,983	26.6
GOODSPRINGS	06-2035	45 - R2.5	(7)	1,155,931	-	1,236,846	4.53	52,342	23.6
HIGGINS	06-2039	45 - R2.5	(7)	25,485	879	26,389	3.83	977	27.0
TOTAL ACCOUNT 345				*241,001,131*	*22,071,875*	*234,790,632*	*3.66*	*8,815,283*	

NEVADA POWER COMPANY
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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
346 MISCELLANEOUS POWER PLANT EQUIPMENT									
CLARK PEAKER UNITS 11-22	06-2038	40 - O1	(1)	728,362	-	735,646	4.47	32,522	22.6
HARRY ALLEN COMBINED CYCLE[2]	06-2046	40 - O1	(2)	46,572,560	-	47,504,011	3.73	1,737,528	27.3
HARRY ALLEN COMMON	06-2046	40 - O1	0	1,262,626	856,166	406,460	1.25	15,792	25.7
LENZIE UNIT 1	06-2041	40 - O1	(4)	585,366	173,539	435,241	3.05	17,882	24.3
LENZIE UNIT 2	06-2041	40 - O1	(5)	579,812	57,795	551,007	3.90	22,638	24.3
PHOTOVOLTAIC SOLAR		25 - R2.5	0	1,973,064	331,076	1,641,988	3.82	75,386	21.8
TOTAL ACCOUNT 346				*51,701,790*	*1,418,576*	*51,274,353*	*3.68*	*1,901,748*	
TOTAL OTHER PRODUCTION				2,711,848,958	379,094,955	2,563,413,171	3.71	100,577,862	
TOTAL PRODUCTION PLANT				3,633,636,113	903,360,022	3,072,606,448		143,835,491	

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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
TRANSMISSION PLANT									
350.2 LAND RIGHTS		65 - R4	0	96,044,126	9,965,277	86,078,849	1.55	1,484,362	58.0
352 STRUCTURES AND IMPROVEMENTS		50 - R3	(5)	1,745,633	1,213,078	619,836	1.38	24,167	25.6
353 STATION EQUIPMENT		54 - R2.5	(10)	586,094,913	117,501,386	527,203,018	2.04	11,980,196	44.0
354 TOWERS AND FIXTURES		60 - R4	(5)	33,465,009	9,643,189	25,495,070	1.48	496,620	51.3
355 POLES AND FIXTURES		45 - R2	(20)	250,409,353	77,606,811	222,884,413	2.52	6,314,232	35.3
356 OVERHEAD CONDUCTORS AND DEVICES		55 - R1.5	(30)	151,784,172	40,572,725	156,746,698	2.26	3,432,735	45.7
357 UNDERGROUND CONDUIT		55 - R2	0	13,039,273	2,669,582	10,369,691	1.61	210,126	49.3
358 UNDERGROUND CONDUCTORS AND DEVICES		45 - R3	0	36,548,916	3,018,888	33,530,028	2.21	808,748	41.5
359 ROADS AND TRAILS		60 - R5	0	1,737,580	351,284	1,386,296	1.74	30,304	45.7
TOTAL TRANSMISSION PLANT				1,170,868,973	262,542,220	1,064,313,899	2.12	24,781,490	
DISTRIBUTION PLANT									
360.2 LAND RIGHTS		65 - R4	0	59,000,939	11,169,830	47,831,109	1.40	828,368	57.7
361 STRUCTURES AND IMPROVEMENTS		50 - R3	(5)	3,832,444	137,528	3,886,538	2.06	79,055	49.2
362 STATION EQUIPMENT		50 - R2.5	(10)	539,442,253	137,605,079	455,781,399	2.07	11,189,339	40.7
364 POLES, TOWERS AND FIXTURES		50 - R1	(35)	64,112,442	22,891,044	63,660,753	2.61	1,674,659	38.0
365 OVERHEAD CONDUCTORS AND DEVICES		55 - R1	(20)	100,674,333	29,261,510	91,547,689	2.12	2,131,020	43.0
366 UNDERGROUND CONDUIT		50 - R3	(20)	144,398,113	44,238,914	129,038,821	2.24	3,240,843	39.8
367 UNDERGROUND CONDUCTORS AND DEVICES		40 - R4	(15)	1,117,188,748	214,200,495	1,070,566,565	3.21	35,906,359	29.8
368 TRANSFORMERS		38 - R2	15	470,018,819	99,195,342	300,320,654	2.24	10,543,140	28.5
369 SERVICES		45 - R4	(50)	154,312,386	118,935,933	112,532,647	2.34	3,614,919	31.1
370 METERS		35 - R1	(5)	95,800,476	20,450,323	80,140,177	2.94	2,813,044	28.5
370.1 AMI METERS		20 - R5	(5)	7,814,544	86,631	8,118,640	5.33	416,341	19.5
372 LEASED PROPERTY ON CUSTOMERS' PREMISES		30 - R1	(5)	3,107,702	470,183	2,792,905	4.89	151,976	18.4
373 STREET LIGHTING AND SIGNAL SYSTEMS		35 - R2	(5)	1,027,955	921,957	157,396	0.66	6,780	23.2
TOTAL DISTRIBUTION PLANT				2,760,731,154	699,564,769	2,366,375,293	2.63	72,595,843	

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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
GENERAL PLANT									
389.2 LAND RIGHTS		65 - R4	0	374,135	361,392	12,743	0.05	204	62.5
390 STRUCTURES AND IMPROVEMENTS		45 - R2	(5)	120,872,608	21,133,926	105,782,312	2.17	2,620,061	40.4
391.1 OFFICE FURNITURE AND EQUIPMENT		20 - SQ	0	28,898,684	1,993,332	26,905,352	5.00 [1]	1,444,934	8.8
391.2 COMPUTER EQUIPMENT		5 - SQ	0	40,503,357	14,746,909	25,756,448	20.00 [1]	8,100,671	2.5
392 TRANSPORTATION EQUIPMENT		9 - S1	15	2,720,809	(42,925)	2,355,613	29.65	806,685	2.9
393 STORES EQUIPMENT		20 - SQ	0	1,132,637	401,989	730,648	5.00 [1]	56,632	7.9
394 TOOLS, SHOP AND GARAGE EQUIPMENT		25 - SQ	0	5,242,427	914,029	4,328,398	4.00 [1]	209,697	12.3
395 LABORATORY EQUIPMENT		15 - SQ	0	2,661,462	(254,664)	2,916,126	6.67 [1]	177,520	2.6
396 POWER OPERATED EQUIPMENT		14 - L2.5	10	2,454,168	(3,159,597)	5,368,348	48.09	1,180,268	4.5
397 COMMUNICATION EQUIPMENT		15 - SQ	0	112,469,840	30,078,992	82,390,848	6.67 [1]	7,501,738	8.2
398 MISCELLANEOUS EQUIPMENT		15 - SQ	0	2,360,845	51,471	2,309,374	6.67 [1]	157,468	12.9
TOTAL GENERAL PLANT				319,690,971	66,224,854	258,856,210	6.96	22,255,879	
TOTAL DEPRECIABLE ELECTRIC PLANT				8,073,369,381	2,030,542,097	6,851,743,788	3.48	280,702,308	

NOTES:
(1) ACCRUAL RATE SHOWN CORRESPONDS TO THE AMORTIZATION PERIOD
(2) THE DEPRECIATION RATES FOR HARRY ALLEN COMBINED CYCLE ARE CALCULATED AS OF JUNE, 2011 BASED ON ESTIMATED PLANT BALANCES BY FERC ACCOUNT

SIERRA PACIFIC POWER COMPANY
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
INTANGIBLE PLANT									
303 SOFTWARE		8 - SQ	0	20,468,262	12,943,129	7,525,134	12.50 *	2,558,533	5.1
TOTAL INTANGIBLE PLANT				**20,468,262**	**12,943,129**	**7,525,134**	**12.50**	**2,558,533**	
STEAM PRODUCTION PLANT									
310.2 LAND RIGHTS									
FT CHURCHILL UNIT 2	12-2021	Square	0	46,092	173	45,918	8.30	3,826	12.0
VALMY UNIT 2	12-2025	Square	0	17,097	49	17,048	6.23	1,065	16.0
TRACY COMMON	12-2043	Square	0	208,591	122,347	86,243	1.22	2,537	34.0
TOTAL ACCOUNT 310.2				*271,779*	*122,569*	*149,209*	*2.73*	*7,428*	
311 STRUCTURES AND IMPROVEMENTS									
FT CHURCHILL UNIT 1	12-2018	125 - R2	(35)	2,793,451	3,598,528	172,629	0.69	19,343	8.9
FT CHURCHILL UNIT 2	12-2021	125 - R2	(29)	2,463,286	2,154,709	1,022,928	3.49	86,066	11.9
FT CHURCHILL COMMON	12-2021	125 - R2	(3)	3,644,519	1,689,948	2,063,907	4.75	173,020	11.9
TRACY UNIT 1	12-2013	125 - R2	(39)	1,434,880	1,408,672	585,812	10.25	147,074	4.0
TRACY UNIT 2	12-2015	125 - R2	(27)	1,056,703	1,128,657	213,355	3.38	35,758	6.0
TRACY UNIT 3	12-2024	125 - R2	(16)	2,582,255	2,278,800	716,616	1.88	48,440	14.8
TRACY COMMON	12-2024	125 - R2	(3)	4,021,981	2,019,086	2,123,555	3.55	142,834	14.9
VALMY UNIT 1	12-2021	125 - R2	(7)	30,642,326	21,766,872	11,020,416	3.02	925,838	11.9
VALMY UNIT 2	12-2025	125 - R2	(8)	27,403,869	16,621,412	12,974,764	2.99	819,943	15.8
TOTAL ACCOUNT 311				*76,043,269*	*52,666,684*	*30,893,982*	*3.15*	*2,398,316*	
312 BOILER PLANT EQUIPMENT									
FT CHURCHILL UNIT 1	12-2018	60 - R2	(37)	10,431,226	8,967,568	5,323,212	5.89	614,451	8.7
FT CHURCHILL UNIT 2	12-2021	60 - R2	(31)	10,209,014	9,447,524	3,926,286	3.37	343,955	11.4
FT CHURCHILL COMMON	12-2021	60 - R2	(5)	2,310,692	1,566,953	859,276	3.16	73,083	11.8
TRACY UNIT 1	12-2013	60 - R2	(41)	3,620,370	4,112,644	992,078	7.04	254,963	3.9
TRACY UNIT 2	12-2015	60 - R2	(29)	13,074,088	13,391,296	3,474,277	4.50	588,851	5.9
TRACY UNIT 3	12-2024	60 - R2	(18)	26,116,802	13,386,282	17,431,543	4.62	1,206,144	14.5
TRACY COMMON	12-2024	60 - R2	(5)	3,153,163	1,429,766	1,881,055	4.13	130,161	14.5
VALMY UNIT 1	12-2021	60 - R2	(9)	66,552,171	47,862,504	24,679,363	3.20	2,131,832	11.6
VALMY UNIT 2	12-2025	60 - R2	(8)	100,560,103	59,630,602	48,974,312	3.19	3,209,118	15.3
TOTAL ACCOUNT 312				*236,027,628*	*159,795,139*	*107,541,402*	*3.62*	*8,552,558*	

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
314 TURBOGENERATOR UNITS									
FT CHURCHILL UNIT 1	12-2018	70 - R2	(35)	7,102,196	6,158,211	3,429,754	5.49	389,931	8.8
FT CHURCHILL UNIT 2	12-2021	70 - R2	(30)	12,854,060	7,491,676	9,218,602	6.11	784,969	11.7
FT CHURCHILL COMMON	12-2021	70 - R2	(3)	60,987	11,885	50,932	7.05	4,301	11.8
TRACY UNIT 1	12-2013	70 - R2	(40)	2,773,607	3,074,820	808,230	7.43	206,053	3.9
TRACY UNIT 2	12-2015	70 - R2	(29)	6,317,388	5,841,089	2,308,341	6.17	389,934	5.9
TRACY UNIT 3	12-2024	70 - R2	(18)	10,458,250	8,714,748	3,625,987	2.41	252,513	14.4
TRACY COMMON	12-2024	70 - R2	(3)	413,540	254,122	171,824	2.83	11,701	14.7
VALMY UNIT 1	12-2021	70 - R2	(7)	20,354,761	12,301,121	9,478,472	3.97	808,077	11.7
VALMY UNIT 2	12-2025	70 - R2	(7)	24,975,605	14,187,740	12,536,158	3.24	810,073	15.5
TOTAL ACCOUNT 314				*85,310,394*	*58,035,412*	*41,628,300*	*4.29*	*3,657,552*	
315 ACCESSORY ELECTRIC EQUIPMENT									
FT CHURCHILL UNIT 1	12-2018	60 - S1.5	(34)	1,976,019	1,858,311	789,555	4.67	92,264	8.6
FT CHURCHILL UNIT 2	12-2021	60 - S1.5	(28)	1,487,292	1,584,278	319,457	1.98	29,399	10.9
FT CHURCHILL COMMON	12-2021	60 - S1.5	(2)	607,840	441,408	178,590	2.49	15,122	11.8
TRACY UNIT 1	12-2013	60 - S1.5	(38)	983,608	1,088,067	269,312	7.08	69,632	3.9
TRACY UNIT 2	12-2015	60 - S1.5	(26)	932,581	1,021,919	153,132	2.82	26,288	5.8
TRACY UNIT 3	12-2024	60 - S1.5	(15)	4,247,730	3,894,123	990,766	1.71	72,836	13.6
TRACY COMMON	12-2024	60 - S1.5	(2)	489,376	231,694	267,468	3.71	18,144	14.7
VALMY UNIT 1	12-2021	60 - S1.5	(6)	14,353,517	11,524,373	3,690,357	2.26	323,837	11.4
VALMY UNIT 2	12-2025	60 - S1.5	(5)	12,670,860	8,233,528	5,070,875	2.66	336,750	15.1
TOTAL ACCOUNT 315				*37,748,823*	*29,877,701*	*11,729,512*	*2.61*	*984,272*	
316 MISCELLANEOUS POWER PLANT EQUIPMENT									
FT CHURCHILL UNIT 1	12-2018	50 - R1.5	(34)	256,664	276,784	67,146	3.25	8,341	8.1
FT CHURCHILL UNIT 2	12-2021	50 - R1.5	(29)	229,258	90,560	205,183	7.82	17,933	11.4
FT CHURCHILL COMMON	12-2021	50 - R1.5	(2)	1,447,990	1,125,581	351,368	2.11	30,487	11.5
TRACY UNIT 1	12-2013	50 - R1.5	(39)	512,217	544,003	167,978	8.42	43,151	3.9
TRACY UNIT 2	12-2015	50 - R1.5	(27)	412,497	367,747	156,124	6.50	26,807	5.8
TRACY UNIT 3	12-2024	50 - R1.5	(16)	667,968	532,612	242,231	2.67	17,812	13.6
TRACY COMMON	12-2024	50 - R1.5	(2)	878,088	127,126	768,523	6.11	53,682	14.3
VALMY UNIT 1	12-2021	50 - R1.5	(6)	2,196,418	1,274,066	1,054,137	4.20	92,323	11.4
VALMY UNIT 2	12-2025	50 - R1.5	(6)	1,225,615	766,004	533,148	2.92	35,838	14.9
TOTAL ACCOUNT 316				*7,826,715*	*5,104,483*	*3,545,838*	*4.17*	*326,374*	
TOTAL STEAM PRODUCTION PLANT				**443,228,609**	**305,601,988**	**195,488,243**	**3.59**	**15,926,500**	

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OTHER PRODUCTION PLANT									
341 STRUCTURES AND IMPROVEMENTS									
CLARK MOUNTAIN DIESELS #1/2	12-2013	Square	(22)	98,991	88,365	32,403	8.18	8,102	4.0
CLARK MOUNTAIN CT #3	12-2024	Square	(7)	2,400,198	1,200,140	1,368,072	3.80	91,205	15.0
CLARK MOUNTAIN CT #4	12-2024	Square	(8)	2,363,835	1,192,803	1,360,139	3.84	90,676	15.0
BATTLE MOUNTAIN	12-2020	Square	(20)	36,993	28,317	16,074	3.95	1,462	11.0
BRUNSWICK	12-2019	Square	(22)	23,728	22,317	6,632	2.79	663	10.0
GABBS	12-2019	Square	(15)	21,159	17,845	6,487	3.07	649	10.0
KINGS BEACH	12-2058	Square	(3)	4,736,246	11,093	4,867,241	2.10	99,331	49.0
VALLEY ROAD DIESELS	12-2010	Square	(23)	28,437	17,110	17,868	62.83	17,868	1.0
WINNEMUCCA GAS TURBINES	12-2020	Square	(17)	104,550	85,427	36,896	3.21	3,354	11.0
TRACY UNITS 4&5	12-2031	Square	(3)	1,340,880	9,608	1,371,499	4.65	62,340	22.0
TRACY 8,9,10	12-2043	Square	(2)	33,136,575	1,216,077	32,583,229	2.89	958,331	34.0
TOTAL ACCOUNT 341				*44,291,592*	*3,889,102*	*41,666,540*	*3.01*	*1,333,981*	
342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES									
CLARK MOUNTAIN DIESELS #1/2	12-2013	Square	(22)	82,028	42,265	57,810	17.62	14,454	4.0
CLARK MOUNTAIN CT #3	12-2024	Square	(7)	5,063,651	2,798,834	2,619,272	3.45	174,619	15.0
CLARK MOUNTAIN CT #4	12-2024	Square	(8)	5,043,602	2,792,373	2,654,717	3.51	176,982	15.0
BATTLE MOUNTAIN	12-2036	Square	(20)	37,724	17,844	27,425	2.69	1,016	27.0
BRUNSWICK	12-2019	Square	(22)	7,708	5,187	4,217	5.47	422	10.0
GABBS	12-2019	Square	(15)	24,053	23,370	4,291	1.78	429	10.0
KINGS BEACH	12-2038	Square	(3)	46,005	283	47,103	3.53	1,623	29.0
VALLEY ROAD DIESELS	12-2010	Square	(23)	38,485	21,205	26,132	67.90	26,132	1.0
TRACY UNITS 4&5	12-2031	Square	(3)	1,183,473	739,705	479,272	1.84	21,786	22.0
TRACY 8,9,10	12-2043	Square	(2)	99,032,246	3,901,879	97,111,012	2.88	2,856,206	34.0
TOTAL ACCOUNT 342				*110,558,976*	*10,342,945*	*103,031,251*	*2.96*	*3,273,669*	
343 PRIME MOVERS									
CLARK MOUNTAIN CT #3	12-2024	Square	(7)	11,149,535	5,855,084	6,074,918	3.63	404,994	15.0
CLARK MOUNTAIN CT #4	12-2024	Square	(8)	11,036,608	5,849,970	6,069,566	3.67	404,638	15.0
TRACY UNITS 4&5	12-2031	Square	(3)	152,110	127,114	29,560	0.88	1,344	22.0
TOTAL ACCOUNT 343				*22,338,253*	*11,832,168*	*12,174,044*	*3.63*	*810,976*	

SIERRA PACIFIC POWER COMPANY
ELECTRIC DIVISION

SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2009

ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
344 GENERATORS									
CLARK MOUNTAIN DIESELS #1/2	12-2013	Square	(22)	1,641,873	1,695,571	307,512	4.68	76,880	4.0
CLARK MOUNTAIN CT #3	12-2024	Square	(7)	9,936,313	3,281,749	7,350,106	4.93	490,008	15.0
CLARK MOUNTAIN CT #4	12-2024	Square	(8)	5,602,203	2,205,093	3,845,287	4.58	256,353	15.0
BATTLE MOUNTAIN	12-2036	Square	(20)	905,282	647,171	439,167	1.80	16,264	27.0
BRUNSWICK	12-2035	Square	(22)	606,804	511,143	229,158	1.45	8,816	26.0
GABBS	12-2019	Square	(15)	594,813	471,951	212,083	3.57	21,209	10.0
KINGS BEACH	12-2038	Square	(3)	9,090,300	(279,700)	9,642,709	3.66	332,507	29.0
VALLEY ROAD DIESELS	12-2010	Square	(23)	709,283	547,676	324,742	45.78	324,742	1.0
WINNEMUCCA GAS TURBINES	12-2020	Square	(17)	1,707,685	1,423,820	574,172	3.06	52,197	11.0
TRACY UNITS 4&5	12-2031	Square	(3)	37,664,578	12,995,783	25,798,733	3.11	1,172,669	22.0
TRACY 8,9,10	12-2043	Square	(2)	257,843,197	11,263,836	251,736,225	2.87	7,404,007	34.0
TOTAL ACCOUNT 344				*326,302,330*	*34,764,093*	*300,459,894*	*3.11*	*10,155,652*	
345 ACCESSORY ELECTRIC EQUIPMENT									
CLARK MOUNTAIN DIESELS #1/2	12-2013	Square	(22)	862,904	884,842	167,901	4.86	41,976	4.0
CLARK MOUNTAIN CT #3	12-2024	Square	(7)	3,659,113	1,499,290	2,415,961	4.40	161,064	15.0
CLARK MOUNTAIN CT #4	12-2024	Square	(8)	3,524,520	1,477,827	2,328,654	4.40	155,243	15.0
BATTLE MOUNTAIN	12-2036	Square	(20)	182,877	337,642	(118,189)	0.00	-	0.0
BRUNSWICK	12-2019	Square	(22)	151,292	273,280	(88,704)	0.00	-	0.0
GABBS	12-2019	Square	(15)	410,984	98,686	373,946	9.10	37,395	10.0
VALLEY ROAD DIESELS	12-2010	Square	(23)	21,869	42,011	(15,113)	0.00	-	0.0
WINNEMUCCA GAS TURBINES	12-2020	Square	(17)	568,143	361,963	302,766	4.84	27,523	11.0
TRACY UNITS 4&5	12-2031	Square	(3)	28,766,716	14,571,192	15,058,527	2.38	684,479	22.0
TRACY 8,9,10	12-2043	Square	(2)	29,210,347	1,616,321	28,178,233	2.84	828,771	34.0
TOTAL ACCOUNT 345				*67,358,766*	*21,163,054*	*48,603,982*	*2.87*	*1,936,451*	
346 MISCELLANEOUS POWER PLANT EQUIPMENT									
CLARK MOUNTAIN CT #3	12-2024	Square	(7)	317,087	349,039	(9,756)	0.00	-	0.0
CLARK MOUNTAIN CT #4	12-2024	Square	(8)	336,555	369,967	(6,488)	0.00	-	0.0
KINGS BEACH	12-2038	Square	(3)	195,956	6,257	195,577	3.44	6,744	29.0
TRACY UNITS 4&5	12-2031	Square	(3)	2,454,025	1,176,965	1,350,680	2.50	61,394	22.0
TRACY 8,9,10	12-2043	Square	(2)	29,810,396	1,043,838	29,362,766	2.90	863,611	34.0
SOLAR	12-2032	Square	0	1,535,274	91,321	1,443,952	4.09	62,781	23.0
TOTAL ACCOUNT 346				*34,649,293*	*3,037,387*	*32,336,731*	*2.87*	*994,530*	
TOTAL OTHER PRODUCTION				**605,499,210**	**85,028,749**	**538,272,442**	**3.06**	**18,505,259**	

SIERRA PACIFIC POWER COMPANY
ELECTRIC DIVISION

SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED
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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
TRANSMISSION PLANT									
350.2 LAND RIGHTS		70 - R4	0	41,261,622	6,816,027	34,445,594	1.40	576,077	59.8
352 STRUCTURES AND IMPROVEMENTS		55 - R4	(5)	19,597,671	2,769,964	17,807,589	2.00	391,921	45.4
353 STATION EQUIPMENT		65 - R3	(5)	209,574,159	73,927,522	146,125,345	1.28	2,675,729	54.6
354 TOWERS AND FIXTURES		65 - R3	(5)	130,072,345	33,282,587	103,293,376	1.50	1,950,450	53.0
355 POLES AND FIXTURES		70 - R3	(40)	72,328,772	24,473,699	76,786,581	1.91	1,380,599	55.6
356 OVERHEAD CONDUCTORS AND DEVICES		65 - R4	(25)	143,905,076	50,343,774	129,537,574	1.75	2,511,535	51.6
357 UNDERGROUND CONDUIT		60 - S4	0	18,517,075	1,649,386	16,867,688	1.68	311,301	54.2
358 UNDERGROUND CONDUCTORS AND DEVICES		50 - S3	0	15,781,550	2,581,524	13,200,025	1.94	305,674	43.2
359 ROADS AND TRAILS		70 - R4	0	383,112	243,087	140,024	1.13	4,347	32.2
TOTAL TRANSMISSION PLANT				**651,421,381**	**196,087,570**	**538,203,796**	**1.55**	**10,107,633**	
DISTRIBUTION PLANT									
360.2 LAND RIGHTS		65 - R4	0	12,483,904	3,481,022	9,002,881	1.34	167,143	53.9
361 STRUCTURES AND IMPROVEMENTS		55 - R3	(5)	2,860,858	704,275	2,299,626	1.87	53,512	43.0
362 STATION EQUIPMENT		55 - R4	(10)	193,361,744	76,942,088	135,755,828	1.65	3,198,076	42.4
364 POLES, TOWERS AND FIXTURES		65 - R1	(40)	166,216,704	77,192,131	155,511,256	1.73	2,876,268	54.1
365 OVERHEAD CONDUCTORS AND DEVICES		55 - R3	(70)	146,416,354	97,463,349	151,444,454	2.72	3,988,501	38.0
366 UNDERGROUND CONDUIT		65 - R4	(75)	84,847,062	31,361,100	117,121,258	2.97	2,517,343	46.5
367 UNDERGROUND CONDUCTORS AND DEVICES		65 - R4	(75)	338,861,549	108,835,834	484,171,877	2.63	8,915,320	54.3
368 TRANSFORMERS		50 - R0.5	(5)	181,784,638	63,158,527	127,715,344	1.65	3,004,804	42.5
369 SERVICES		60 - R2	(25)	124,384,395	67,921,780	87,558,717	1.36	1,690,427	51.8
370 METERS		30 - R0.5	0	43,035,626	13,423,035	29,612,591	2.99	1,287,757	23.0
371 INSTALLATIONS ON CUSTOMERS' PREMISES		35 - R2	(20)	8,594,525	8,204,052	2,109,379	1.01	87,146	24.2
373 STREET LIGHTING AND SIGNAL SYSTEMS		50 - R2	(50)	35,486,058	11,585,812	41,643,277	3.03	1,076,372	38.7
TOTAL DISTRIBUTION PLANT				**1,338,333,418**	**560,273,005**	**1,343,946,488**	**2.16**	**28,862,669**	

SIERRA PACIFIC POWER COMPANY
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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
GENERAL PLANT									
389.2 LAND RIGHTS		65 - R4	0	259,772	33,526	226,245	1.80	4,676	48.4
390 STRUCTURES AND IMPROVEMENTS		57 - R4	(5)	12,844,505	3,724,475	9,762,254	1.78	228,601	42.7
391.1 OFFICE FURNITURE AND EQUIPMENT		20 - SQ	0	3,663,894	1,029,500	2,634,395	5.00 *	183,195	14.4
391.2 COMPUTER EQUIPMENT		5 - SQ	0	9,856,915	5,637,933	4,218,983	20.00 *	1,971,383	3.2
392 TRANSPORTATION EQUIPMENT		14 - L1	8	10,806,610	6,282,792	3,659,291	4.40	475,758	7.7
393 STORES EQUIPMENT		20 - SQ	0	130,896	55,784	75,112	5.00 *	6,545	3.1
394 TOOLS, SHOP AND GARAGE EQUIPMENT		25 - SQ	0	3,077,901	1,400,038	1,677,865	4.00 *	123,116	4.6
395 LABORATORY EQUIPMENT		15 - SQ	0	729,972	100,397	629,575	6.67 *	48,689	5.4
396 POWER OPERATED EQUIPMENT		14 - R1.5	8	3,776,208	1,445,889	2,028,223	6.76	255,448	7.9
397 COMMUNICATION EQUIPMENT		15 - SQ	0	31,140,681	6,120,835	25,019,846	6.67 *	2,077,083	10.1
398 MISCELLANEOUS EQUIPMENT		20 - SQ	0	20,797	-	20,797	5.00 *	1,040	19.5
TOTAL GENERAL PLANT				76,308,152	25,831,169	49,952,586	7.04	5,375,534	
TOTAL DEPRECIABLE ELECTRIC PLANT				3,114,518,991	1,172,699,912	2,665,714,346	2.53	78,770,167	
COMMON PLANT									
303 SOFTWARE		8 - SQ	0	76,669,335	56,068,060	20,601,276	12.50 *	9,583,667	5.7
389.2 LAND RIGHTS		65 - R4	0	279,553	(1,364)	280,917	1.66	4,627	60.7
390 STRUCTURES AND IMPROVEMENTS		57 - R4	(5)	32,311,181	11,517,802	22,408,936	1.57	508,897	44.0
391.1 OFFICE FURNITURE AND EQUIPMENT		20 - SQ	0	13,978,917	5,246,097	8,732,822	5.00 *	698,946	17.2
391.2 COMPUTER EQUIPMENT		5 - SQ	0	18,255,386	6,365,326	11,890,060	20.00 *	3,651,077	3.7
392 TRANSPORTATION EQUIPMENT		14 - L1	8	792,444	240,575	488,472	9.52	75,448	6.5
394 TOOLS, SHOP AND GARAGE EQUIPMENT		25 - SQ	0	827,801	661,555	166,246	4.00 *	33,112	8.1
396 POWER OPERATED EQUIPMENT		14 - R1.5	8	151,906	74,900	64,853	4.97	7,555	8.6
397 COMMUNICATION EQUIPMENT		15 - SQ	0	9,955,089	1,847,407	8,107,680	6.67 *	664,004	9.9
398 MISCELLANEOUS EQUIPMENT		20 - SQ	0	25,781	-	25,781	5.00 *	1,289	17.1
TOTAL COMMON PLANT				153,247,394	82,020,358	72,767,043	9.94	15,228,623	
TOTAL DEPRECIABLE PLANT				3,288,506,426	1,267,785,968	2,746,155,732	2.94	96,564,750	

SIERRA PACIFIC POWER COMPANY
ELECTRIC DIVISION

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ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ACCOUNTS NOT STUDIED									
301 ORGANIZATION				26,156	-				
302 FRANCHISES AND CONSENTS				5,851	-				
310.1 LAND				948,000	229				
317 ASSET RETIREMENT COSTS				2,116,131	595,686				
330 LAND				2,227	-				
340.1 LAND				206,294	-				
340.2 LAND RIGHTS				-	12,870				
347 ASSET RETIREMENT COSTS				374,800	38,402				
350.1 LAND				4,097,964	(3,068)				
360.1 LAND				4,278,624	(17,599)				
364 POLES, TOWERS AND FIXTURES - ADJUSTMENTS				2,765,181	3,060,763				
374 ASSET RETIREMENT COSTS - PCB'S				299,081	88,679				
389.1 LAND				1,225,148	(191)				
389.1 LAND COMMON				3,478,300	(142,678)				
399 ASSET RETIREMENT COSTS				(7,684)	4,500				
TOTAL ACCOUNTS NOT STUDIED				19,816,071	3,637,594				
TOTAL ELECTRIC PLANT				3,308,322,497	1,271,423,562				

* ACCRUAL RATE CORRESPONDS TO THE AMORTIZATION PERIOD

Nova Scotia Power, Inc.

Schedule A. Estimated Survivor Curve, Net Salvage, Original Cost, Book Reserve and Calculated Annual Depreciation Accruals Related to Electric Plant in Service as of December 31, 2009

	Probable Retirement Date	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/09	Book Reserve at 12/31/09	Future Book Accruals	Average Remaining Life	Annual Accrual Amount	Annual Accrual Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DEPRECIABLE PLANT									
Steam Production Plant									
Lingan									
Lingan 1-2	06-2026	60 - L2 a	(9)	184,774,073	126,388,361	75,015,380	14.6	5,149,306	2.79
Lingan 3-4	06-2030	60 - L2 a	(9)	239,054,566	138,144,200	122,425,276	17.7	6,909,142	2.89
Lingan - Common	06-2030	60 - L2 a	(9)	99,913,587	9,563,863	99,341,948	19.6	5,071,495	5.08
Total Lingan				*523,742,227*	*274,096,424*	*296,782,604*		*17,129,943*	*3.27*
Point Aconi	06-2039	60 - L2 a	(6)	504,952,024	169,438,169	365,810,978	25.0	14,621,138	2.90
Point Tupper									
Point Tupper 1	06-2028	60 - L2 a	(23)	9,507,855	3,246,958	8,447,704	14.8	570,455	6.00
Point Tupper 2	06-2028	60 - L2 a	(23)	149,848,292	82,333,135	101,980,262	16.9	6,040,083	4.03
Total Point Tupper				*159,356,147*	*85,580,093*	*110,427,966*		*6,610,538*	*4.15*
Trenton									
Trenton 5	06-2025	60 - L2 a	(14)	111,556,866	41,453,717	85,721,112	15.0	5,706,735	5.12
Trenton 6	06-2037	60 - L2 a	(14)	257,048,025	99,077,662	193,957,086	23.1	8,380,085	3.26
Trenton - Common	06-2037	60 - L2 a	(14)	18,775,838	17,655,565	3,748,893	26.1	143,907	0.77
Total Trenton				*387,380,730*	*158,186,944*	*283,427,091*		*14,230,727*	*3.67*
Tufts Cove									
Tufts Cove 1	06-2020	60 - L2 a	(13)	32,831,309	19,484,615	17,614,764	10.0	1,755,125	5.35
Tufts Cove 2	06-2020	60 - L2 a	(13)	31,695,828	20,577,041	15,239,246	10.1	1,503,827	4.74
Tufts Cove 3	06-2020	60 - L2 a	(13)	60,430,748	36,941,440	31,345,306	10.1	3,097,158	5.13
Tufts Cove - Common	06-2020	60 - L2 a	(13)	66,253,084	24,510,820	50,355,165	10.2	4,923,557	7.43
Total Tufts Cove				*191,210,970*	*101,513,916*	*114,554,481*		*11,279,667*	*5.90*
Point Tupper Marine Terminal	06-2037	100 - R1 a	(50)	33,233,001	4,985,383	44,864,119	24.4	1,838,864	5.53
General				4,677,406	1,182,947	3,494,459		170,765	3.65
Total Steam Plant				**1,804,552,504**	**794,983,876**	**1,219,361,698**		**65,881,642**	**3.65**

Nova Scotia Power, Inc.

Schedule A. Estimated Survivor Curve, Net Salvage, Original Cost, Book Reserve and Calculated Annual Depreciation Accruals Related to Electric Plant in Service as of December 31, 2009

	Probable Retirement Date	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/09	Book Reserve at 12/31/09	Future Book Accruals	Average Remaining Life	Annual Accrual Amount	Annual Accrual Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Hydraulic Production Plant									
Avon	06-2041	95 - S1.5 a	(71)	13,582,083	3,240,396	19,984,965	30.1	663,839	4.89
Bear River	06-2061	95 - S1.5 a	(179)	36,282,999	13,500,212	87,729,354	42.6	2,059,610	5.68
Black River	06-2061	95 - S1.5 a	(150)	28,359,899	6,655,947	64,243,801	44.4	1,448,481	5.11
Dickie Brook	06-2042	95 - S1.5 a	(62)	8,158,836	1,264,935	11,952,380	31.4	381,114	4.67
Fall River	06-2061	95 - S1.5 a	(445)	1,427,135	501,529	7,276,356	43.7	166,389	11.66
Harmony	06-2031	95 - S1.5 a	(89)	3,471,334	648,595	5,912,228	21.1	279,621	8.06
Lequille System									
Nictaux and Paradise	06-2042	95 - S1.5 a	(145)	13,159,138	7,506,747	24,733,141	30.1	821,657	6.24
Lequille	06-2047	95 - S1.5 a	(145)	5,363,588	-	13,140,789	33.6	391,389	7.30
Total Lequille System				*18,522,726*	*7,506,747*	*37,873,930*		*1,213,046*	*6.55*
Roseway	06-2051	95 - S1.5 a	(221)	2,252,351	632,058	6,597,987	37.8	174,416	7.74
St. Margaret's	06-2036	95 - S1.5 a	(138)	13,372,197	5,763,690	26,062,138	24.7	1,054,548	7.89
Sheet Harbour	06-2036	95 - S1.5 a	(48)	22,864,098	6,541,906	27,296,957	25.5	1,071,482	4.69
Tusket	06-2041	95 - S1.5 a	(129)	5,531,611	2,009,279	10,658,112	29.3	363,622	6.57
Wreck Cove System									
Wreck Cove	06-2061	95 - S1.5 a	(20)	161,917,415	72,330,369	121,970,530	41.8	2,917,807	1.80
South Lake		Fully Accrued		1,081,300	1,156,991	140,570	-	-	-
Total Wreck Cove System				*162,998,715*	*73,487,360*	*122,111,100*		*2,917,807*	*1.79*
Annapolis Tidal	06-2047	95 - S1.5 a	(26)	36,272,247	12,635,170	33,067,861	34.5	959,319	2.64
General				9,282,526	466,799	8,815,727		335,271	3.61
Total Hydraulic Production				**362,378,756**	**134,854,623**	**469,582,896**		**13,088,565**	**3.61**
Wind Turbine	**06-2023**	**Square**	**(50)**	**2,975,368**	**1,008,105**	**3,454,946**	**14**	**255,922**	**8.60**
Other Production - Gas Turbines									
Burnside	06-2023	90 - S0.5 a	(16)	19,741,676	15,525,782	7,374,561	13.1	564,523	2.86
Tusket	06-2017	90 - S0.5 a	(32)	5,044,977	3,753,824	2,905,545	7.4	391,992	7.77
Victoria Junction	06-2016	90 - S0.5 a	(24)	7,437,789	7,200,052	2,022,806	6.4	317,904	4.27
Tufts Cove CT Unit 4	06-2045	90 - S0.5 a	(11)	42,424,316	10,032,974	37,058,017	32.0	1,159,492	2.73
Tufts Cove CT Unit 5	06-2045	90 - S0.5 a	(11)	31,392,980	5,031,451	29,814,757	32.1	927,920	2.96
Total Other Production - Gas Turbines				**106,041,738**	**41,544,083**	**79,175,686**		**3,361,831**	**3.17**

Nova Scotia Power, Inc.

Schedule A. Estimated Survivor Curve, Net Salvage, Original Cost, Book Reserve and Calculated Annual Depreciation Accruals Related to Electric Plant in Service as of December 31, 2009

	Probable Retirement Date	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/09	Book Reserve at 12/31/09	Future Book Accruals	Average Remaining Life	Annual Accrual Amount	Annual Accrual Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Transmission Plant									
Land Rights - Easements		80 - SQ	0	51,683,256	15,703,196	35,980,060	55.3	651,189	1.26
Station Equipment		42 - R2.5	(5)	299,914,635	163,126,081	151,784,287	23.7	6,403,587	2.14
Towers and Fixtures		55 - S3	(35)	71,448,854	64,992,904	31,463,050	35.0	899,634	1.26
Poles and Fixtures		47 - R2	(40)	120,459,555	36,000,908	132,642,467	25.5	5,205,015	4.32
Overhead Conductors and Devices		45 - R3	(10)	90,836,531	57,830,087	42,090,100	23.6	1,779,868	1.96
Underground Conduit		65 - S3	0	1,245,673	317,402	928,271	48.6	19,113	1.53
Underground Conductors and Devices		40 - R4	0	228,092	75,339	152,753	25.7	5,945	2.61
Roads, Trails and Bridges		65 - SQ	0	167,271	68,977	98,294	33.8	2,904	1.74
Total Transmission Plant				**635,983,867**	**338,114,894**	**395,139,282**		**14,967,255**	**2.35**
Distribution Plant									
Land Rights - Easements, Surveys and Clearing		60 - SQ	0	17,174,453	5,094,813	12,079,640	45.0	268,149	1.56
Structures and Improvements		50 - R2.5	(5)	432,845	18,222	436,263	19.0	22,972	5.31
Station Equipment		48 - R1.5	(5)	72,118,886	51,955,682	23,769,153	25.8	921,294	1.28
SCADA Equipment		14 - R2.5	0	403,867	131,919	271,948	7.0	39,097	9.68
Remote Monitoring Equipment		14 - R2.5	0	309,013	81,224	227,789	7.1	31,903	10.32
Station Equipment - Miscellaneous		14 R2.5	0	442,396	123,260	319,136	5.8	55,263	12.49
Poles, Towers and Fixtures		38 - R2.5	(40)	413,143,951	252,042,585	326,358,947	20.8	15,655,576	3.79
Overhead Conductors and Devices		38 - R2.5	(15)	195,166,722	92,318,174	132,123,557	20.4	6,491,987	3.33
Underground Conduit		65 - S3	0	7,120,116	2,827,249	4,292,867	40.0	107,192	1.51
Underground Conductors and Devices		43 - R3	(25)	42,001,518	17,682,794	34,819,110	26.2	1,329,588	3.17
Line Transformers		30 - R1	(20)	275,869,937	146,592,639	184,451,286	16.4	11,270,089	4.09
Services		42 - S3	(75)	120,194,451	70,063,477	140,276,823	21.9	6,402,498	5.33
Meters		25 - S2	0	42,735,594	19,845,112	22,890,482	12.3	1,867,982	4.37
Street Lighting and Signal Systems		28 - R2	(30)	49,164,199	28,162,727	35,750,734	13.7	2,618,143	5.33
Total Distribution Plant				**1,236,277,948**	**686,939,877**	**918,067,735**		**47,081,733**	**3.81**

Nova Scotia Power, Inc.

Schedule A. Estimated Survivor Curve, Net Salvage, Original Cost, Book Reserve and Calculated Annual Depreciation Accruals Related to Electric Plant in Service as of December 31, 2009

	Probable Retirement Date	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/09	Book Reserve at 12/31/09	Future Book Accruals	Average Remaining Life	Annual Accrual Amount	Annual Accrual Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
General Plant									
Land Rights - General Plant		50 - SQ	0	1,665,801	215,220	1,450,582	45.2	32,082	1.93
Structures and Improvements		40 - R3	(5)	66,631,159	25,122,486	44,840,235	23.6	1,896,868	2.85
Office Furniture and Equipment		20 - SQ	0	9,392,682	6,648,785	2,743,897	3.2	870,048	9.26
Office Furniture and Equip - Computer Hardware		5 - SQ	0	22,896,174	5,089,582	17,806,592		4,579,235	20.00
Reserve Variance Amort - Comp Hardware						8,436,715 c	5.0 b	1,687,343	
Office Furniture & Equip - Computer Software		10 - SQ	0	18,089,266	4,675,568	13,413,697		1,808,927	10.00
Reserve Variance Amort - Comp Software						7,750,428 c	5.0 b	1,550,086	
Transportation Equipment		13 - R0.5	10	54,010,684	18,724,237	29,885,380	5.8	5,159,604	9.55
Stores Equipment		15 - SQ	0	472,905	330,290	142,614	2.0	70,792	14.97
Tools, Shop and Garage Equipment		20 - SQ	0	4,411,748	4,411,748	-	-	-	-
Laboratory Equipment		15 - SQ	0	389,937	389,937	-	-	-	-
Communication Equipment		20 - R3	0	45,402,470	27,057,595	18,344,875	9.2	1,987,820	4.38
Communication Equipment - SCADA Eq		15 - S1	0	10,690,059	9,208,963	1,481,096	10.5	141,716	1.33
Remote Monitoring Equipment		12 R2.5	0	220,775	36,360	184,415	8.1	22,683	10.27
Miscellaneous Equipment		20 - SQ	0	17,946,586	6,431,077	11,515,508	12.8	901,812	5.02
Roads, Bridges and Trails (Kelly Rock)	06-2039	Square	0	503,621	120,819	382,802	29.5	12,976	2.58
Mining Equipment (Kelly Rock)	06-2039	40 - R2	(5)	2,009,449	834,036	1,275,885	21.7	58,717	2.92
Total General Plant				**254,733,317**	**109,296,703**	**159,654,721**		**20,780,708**	**8.16**
Fully Amortized General Plant [d]									
Office Furniture and Equipment				4,239,221	4,239,221				
Office Furniture and Equip - Computer Hardware				23,368,617	23,368,617				
Office Furniture and Equip - Computer Software				20,745,449	20,745,450				
Tools, Shop and Garage Equipment				3,488,275	3,488,275				
Laboratory Equipment				2,294,942	2,294,942				
Miscellaneous Equipment				742,816	742,816				
Total Fully Amortized General Plant				**54,879,320**	**54,879,321**				
Total Depreciable Plant Studied				**4,457,822,817**	**2,161,621,482**	**3,244,436,964**		**165,417,656**	**3.71**

Footnotes:

a Curve shown represents interim survivor curve.

b Special reserve variance amortization adjustment proposed. The reserve variance related to computer hardware will be amortized over a 5 year period rather than the account's remaining life.

c Amount shown represents the reserve variance related to computer hardware and software. The reserve variance is the difference between the theoretical reserve and the book reserve.

d Amounts shown are for vintages outside of the amortization period for each account. These amounts should be retired with the adoption of amortization accounting.

NORTHERN INDIANA PUBLIC SERVICE COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT JUNE 30, 2010

DEPRECIABLE GROUP	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
STEAM PRODUCTION PLANT								
311.00 STRUCTURES AND IMPROVEMENTS								
Fully Depreciated								
D H Mitchell - Units 4, 5, 6 and 11	100-R2.5 *	(15)	1,141,085.08	1,312,248	0	0	-	-
D H Mitchell - Units 5 and 6	100-R2.5 *	(15)	5,464,681.59	6,284,384	0	0	-	-
D H Mitchell Generating Station	100-R2.5 *	(15)	12,673,248.82	14,574,236	0	0	-	-
D H Mitchell - Unit 4	100-R2.5 *	(15)	3,197,160.38	3,676,734	0	0	-	-
D H Mitchell - Unit 5	100-R2.5 *	(15)	541,843.69	623,120	0	0	-	-
D H Mitchell - Unit 6	100-R2.5 *	(15)	441,567.76	507,803	0	0	-	-
D H Mitchell - Unit 11	100-R2.5 *	(15)	4,813,715.26	5,535,773	0	0	-	-
Michigan City - Units 2 and 3	100-R2.5 *	(12)	476,401.68	533,570	0	0	-	-
Michigan City - Unit 2	100-R2.5 *	(12)	42,368.92	47,453	0	0	-	-
Michigan City - Unit 3	100-R2.5 *	(12)	9,846.70	11,028	0	0	-	-
Total Fully Depreciated Account 311			*28,801,919.88*	*33,106,349*	*0*	*0*	-	-
Depreciable								
Bailly - Units 7 and 8	100-R2.5 *	(11)	23,268,960.46	21,111,555	4,716,992	268,471	1.15	17.6
Bailly Generating Station	100-R2.5 *	(11)	12,276,206.26	11,274,651	2,351,939	133,061	1.08	17.7
Bailly - Unit 7	100-R2.5 *	(11)	6,440,189.41	7,130,296	18,316	1,423	0.02	12.9
Bailly - Unit 8	100-R2.5 *	(11)	11,119,997.76	11,371,741	971,457	54,986	0.49	17.7
Michigan City - Units 2, 3 and 12	100-R2.5 *	(23)	8,034,075.76	9,152,422	729,493	31,236	0.39	23.4
Michigan City Generating Station	100-R2.5 *	(23)	25,880,592.75	18,155,905	13,677,222	586,186	2.26	23.3
Michigan City - Unit 12	100-R2.5 *	(23)	25,525,252.25	25,553,938	5,842,122	253,917	0.99	23.0
R M Schahfer - Units 14 and 15	100-R2.5 *	(22)	7,658,508.33	6,668,337	2,675,042	97,094	1.27	27.6
R M Schahfer - Units 14, 15, 17 and 18	100-R2.5 *	(22)	31,791,161.73	24,185,476	14,599,743	434,230	1.37	33.6
R M Schahfer - Units 17 and 18	100-R2.5 *	(22)	58,074,536.24	44,022,476	26,828,457	797,292	1.37	33.6
R M Schahfer Generating Station	100-R2.5 *	(22)	45,567,101.51	29,441,044	26,150,817	774,126	1.70	33.8
R M Schahfer - Unit 14	100-R2.5 *	(22)	32,470,228.48	31,440,451	8,173,228	328,635	1.01	24.9
R M Schahfer - Unit 15	100-R2.5 *	(22)	33,561,760.48	30,481,110	10,464,237	380,297	1.13	27.5
R M Schahfer - Unit 17	100-R2.5 *	(22)	85,213,044.80	68,096,561	35,863,350	1,151,185	1.35	31.2
R M Schahfer - Unit 18	100-R2.5 *	(22)	57,802,166.69	41,469,466	29,049,177	859,301	1.49	33.8
Total Depreciable Account 311			*464,683,782.91*	*379,555,429*	*182,111,592*	*6,151,440*	*1.32*	*29.6*
Total Account 311			493,485,702.79	412,661,778	182,111,592	6,151,440	1.25	29.6
BOILER PLANT EQUIPMENT								
312.10 Boiler Plant Equipment								
Fully Depreciated								
D H Mitchell - Units 4 and 5	45-S0.5 *	(15)	1,477,243.79	1,698,830	0	0	-	-
D H Mitchell - Units 4, 5 and 6	45-S0.5 *	(15)	453,562.51	521,597	0	0	-	-
D H Mitchell - Units 4, 5, 6 and 11	45-S0.5 *	(15)	3,549,478.33	4,081,900	0	0	-	-
D H Mitchell - Units 5 and 6	45-S0.5 *	(15)	1,129,048.97	1,298,406	0	0	-	-
D H Mitchell Generating Station	45-S0.5 *	(15)	27,026,041.46	31,079,948	0	0	-	-
D H Mitchell - Unit 4	45-S0.5 *	(15)	10,966,976.13	12,612,023	0	0	-	-
D H Mitchell - Unit 5	45-S0.5 *	(15)	13,264,610.03	15,254,302	0	0	-	-
D H Mitchell - Unit 6	45-S0.5 *	(15)	15,967,160.99	18,362,235	0	0	-	-
D H Mitchell - Unit 11	45-S0.5 *	(15)	14,954,121.89	17,197,240	0	0	-	-
Michigan City - Units 2 and 3	45-S0.5 *	(12)	9,860,091.46	11,043,302	0	0	-	-
Michigan City - Unit 2	45-S0.5 *	(12)	828,621.66	928,056	0	0	-	-
Michigan City - Unit 3	45-S0.5 *	(12)	337,283.00	377,757	0	0	-	-
Total Fully Depreciated Account 312.10			*99,814,240.22*	*114,455,596*	*0*	*0*	-	-

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT JUNE 30, 2010

DEPRECIABLE GROUP	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
312.10 Boiler Plant Equipment, cont.								
Depreciable								
Bailly - Units 7 and 8	45-S0.5 *	(11)	33,509,663.60	22,830,028	14,365,694	958,444	2.86	15.0
Bailly Generating Station	45-S0.5 *	(11)	164,239,336.87	55,006,780	127,298,885	7,966,343	4.85	16.0
Bailly - Unit 7	45-S0.5 *	(11)	60,002,126.13	33,687,917	32,914,445	2,742,040	4.57	12.0
Bailly - Unit 8	45-S0.5 *	(11)	116,511,439.87	56,414,100	72,913,600	4,651,665	3.99	15.7
Michigan City Generating Station	45-S0.5 *	(23)	81,996,524.77	40,354,103	60,501,622	3,148,689	3.84	19.2
Michigan City - Unit 12	45-S0.5 *	(23)	135,865,994.29	79,797,478	87,317,693	4,649,805	3.42	18.8
R M Schahfer - Units 14 and 15	45-S0.5 *	(22)	26,825,623.17	13,845,419	18,881,840	892,384	3.33	21.2
R M Schahfer - Units 14, 15, 17 and 18	45-S0.5 *	(22)	9,756,279.28	7,030,497	4,872,163	234,433	2.40	20.8
R M Schahfer - Units 17 and 18	45-S0.5 *	(22)	43,809,638.06	27,577,597	25,870,160	1,180,828	2.70	21.9
R M Schahfer Generating Station	45-S0.5 *	(22)	57,146,114.41	26,984,157	42,734,103	1,822,479	3.19	23.4
R M Schahfer - Unit 14	45-S0.5 *	(22)	223,072,735.89	119,928,353	152,220,384	7,650,618	3.43	19.9
R M Schahfer - Unit 15	45-S0.5 *	(22)	173,822,457.96	114,947,653	97,115,745	4,843,494	2.79	20.1
R M Schahfer - Unit 17	45-S0.5 *	(22)	167,651,363.73	120,106,649	84,428,013	4,160,984	2.48	20.3
R M Schahfer - Unit 18	45-S0.5 *	(22)	174,777,568.57	116,431,553	96,797,081	4,520,728	2.59	21.4
Total Depreciable Account 312.10			*1,468,986,866.60*	*834,942,284*	*918,231,428*	*49,422,934*	*3.36*	*18.6*
Total Account 312.10			1,568,801,106.82	949,397,880	918,231,428	49,422,934	3.15	18.6
312.20 Boiler Plant - Mobile Fuel Hdlg/Strg								
Bailly - Units 7 and 8	45-S0.5 *	(11)	21,518.69	4,985	18,901	1,163	5.40	16.3
Bailly Generating Station	45-S0.5 *	(11)	4,417,267.03	3,638,958	1,264,209	79,543	1.80	15.9
Michigan City Generating Station	45-S0.5 *	(23)	4,343,019.84	4,143,356	1,198,560	61,800	1.42	19.4
Michigan City - Unit 12	45-S0.5 *	(23)	586,615.95	118,805	602,733	29,735	5.07	20.3
R M Schahfer Generating Station	45-S0.5 *	(22)	9,036,156.06	4,891,415	6,132,695	248,273	2.75	24.7
R M Schahfer - Unit 15	45-S0.5 *	(22)	109,986.40	28,639	105,544	4,635	4.21	22.8
Total Account 312.20			18,514,563.97	12,826,158	9,322,642	425,149	2.30	21.9
312.30 Boiler Plant - Unit Train Coal Cars								
Bailly - Units 7 and 8	25-R2.5	20	2,823,045.89	2,258,437	0	0	-	-
Bailly Generating Station	25-R2.5	20	17,292.70	13,834	0	0	-	-
R M Schahfer - Units 14, 15, 17 and 18	25-R2.5	20	970,020.00	555,672	220,344	14,544	1.50	15.2
R M Schahfer Generating Station	25-R2.5	20	242,505.00	138,918	55,086	3,636	1.50	15.2
Total Account 312.30			4,052,863.59	2,966,861	275,430	18,180	0.45	15.2
312.40 Boiler Plant - SO2 Plant Equipment								
R M Schahfer - Units 17 and 18	45-S0.5 *	(22)	30,099,429.67	6,797,393	29,923,913	1,323,097	4.40	22.6
R M Schahfer Generating Station	45-S0.5 *	(22)	12,075,929.05	1,933,594	12,799,038	532,478	4.41	24.0
R M Schahfer - Unit 14	45-S0.5 *	(22)	26,098.09	1,303	30,537	1,426	5.46	21.4
R M Schahfer - Unit 17	45-S0.5 *	(22)	48,768,886.41	11,514,237	47,983,805	2,285,158	4.69	21.0
R M Schahfer - Unit 18	45-S0.5 *	(22)	47,314,242.55	9,970,287	47,753,089	2,127,832	4.50	22.4
Total Account 312.40			138,284,585.77	30,216,814	138,490,382	6,269,991	4.53	22.1

NORTHERN INDIANA PUBLIC SERVICE COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT JUNE 30, 2010

DEPRECIABLE GROUP	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
312.50 Boiler Plant - Coal Pile Base								
Fully Depreciated								
D H Mitchell Generating Station	SQUARE *	0	2,840,862.21	2,840,862	0	0	-	-
Depreciable								
Bailly - Units 7 and 8	SQUARE *	(11)	949,799.28	1,054,277	0	0	-	-
Michigan City Generating Station	SQUARE *	(23)	664,033.03	816,761	0	0	-	-
R M Schahfer - Units 14 and 15	SQUARE *	(22)	1,829,921.12	2,120,297	112,207	3,869	0.21	29.0
R M Schahfer - Units 17 and 18	SQUARE *	(22)	2,400,176.48	2,426,616	501,599	13,933	0.58	36.0
Total Depreciable Account 312.50			*5,843,929.91*	*6,417,951*	*613,806*	*17,802*	0.30	34.5
Total Account 312.50			8,684,792.12	9,258,813	613,806	17,802	0.20	34.5
Total Account 312			1,738,337,912.27	1,004,666,526	1,066,933,688	56,154,056	3.23	19.0
314.00 TURBO-GENERATOR UNITS								
Fully Depreciated								
D H Mitchell - Units 4 and 5	50-S1.5 *	(15)	62,956.67	72,400	0	0	-	-
D H Mitchell - Units 4, 5, 6 and 11	50-S1.5 *	(15)	72,506.30	83,382	0	0	-	-
D H Mitchell - Units 5 and 6	50-S1.5 *	(15)	520,325.50	598,374	0	0	-	-
D H Mitchell Generating Station	50-S1.5 *	(15)	4,080,948.33	4,693,091	0	0	-	-
D H Mitchell - Unit 4	50-S1.5 *	(15)	6,933,342.87	7,973,344	0	0	-	-
D H Mitchell - Unit 5	50-S1.5 *	(15)	8,638,122.65	9,933,841	0	0	-	-
D H Mitchell - Unit 6	50-S1.5 *	(15)	3,326,507.46	3,825,484	0	0	-	-
D H Mitchell - Unit 11	50-S1.5 *	(15)	5,178,058.93	5,954,768	0	0	-	-
Michigan City - Units 2 and 3	50-S1.5 *	(12)	1,198,746.84	1,342,596	0	0	-	-
Michigan City - Unit 2	50-S1.5 *	(12)	2,403,348.12	2,691,750	0	0	-	-
Michigan City - Unit 3	50-S1.5 *	(12)	2,298,372.39	2,574,177	0	0	-	-
Total Fully Depreciated Account 314			*34,713,236.06*	*39,743,207*	*0*	*0*	-	-
Depreciable								
Bailly - Units 7 and 8	50-S1.5 *	(11)	2,657,602.75	2,867,687	82,252	6,849	0.26	12.0
Bailly Generating Station	50-S1.5 *	(11)	3,861,055.86	2,102,118	2,183,654	130,459	3.38	16.7
Bailly - Unit 7	50-S1.5 *	(11)	36,934,478.23	27,106,147	13,891,123	1,116,352	3.02	12.4
Bailly - Unit 8	50-S1.5 *	(11)	65,240,242.99	17,215,312	55,201,359	3,162,825	4.85	17.5
Michigan City Generating Station	50-S1.5 *	(23)	2,838,787.07	1,539,928	1,951,780	92,791	3.27	21.0
Michigan City - Unit 12	50-S1.5 *	(23)	68,981,248.96	34,827,332	50,019,603	2,318,224	3.36	21.6
R M Schahfer - Units 14 and 15	50-S1.5 *	(22)	1,104,030.54	845,258	501,660	23,434	2.12	21.4
R M Schahfer - Units 14 and 17	50-S1.5 *	(22)	89,017.09	35,833	72,768	2,733	3.07	26.6
R M Schahfer - Units 14, 15, 17 and 18	50-S1.5 *	(22)	272,125.70	182,367	149,626	6,117	2.25	24.5
R M Schahfer - Units 14, 17 and 18	50-S1.5 *	(22)	117,573.77	48,709	94,731	3,422	2.91	27.7
R M Schahfer - Units 15 and 18	50-S1.5 *	(22)	65,911.91	31,838	48,575	1,821	2.76	26.7
R M Schahfer - Units 17 and 18	50-S1.5 *	(22)	2,008,001.36	949,184	1,500,578	55,573	2.77	27.0
R M Schahfer Generating Station	50-S1.5 *	(22)	4,520,068.48	2,304,823	3,209,662	119,760	2.65	26.8
R M Schahfer - Unit 14	50-S1.5 *	(22)	45,515,246.00	37,733,413	17,795,186	908,046	2.00	19.6
R M Schahfer - Unit 15	50-S1.5 *	(22)	54,780,055.19	41,799,328	25,032,339	1,170,828	2.14	21.4
R M Schahfer - Unit 17	50-S1.5 *	(22)	85,039,282.81	66,489,051	37,258,876	1,718,868	2.02	21.7
R M Schahfer - Unit 18	50-S1.5 *	(22)	88,762,281.46	65,574,106	42,715,877	1,878,938	2.12	22.7
Total Depreciable Account 314			*462,787,010.17*	*301,652,434*	*251,709,649*	*12,717,040*	*2.75*	*19.8*
Total Account 314			497,500,246.23	341,395,641	251,709,649	12,717,040	2.56	19.8

NORTHERN INDIANA PUBLIC SERVICE COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT JUNE 30, 2010

DEPRECIABLE GROUP	SURVIVOR CURVE		NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
315.00 ACCESSORY ELECTRIC EQUIPMENT									
Fully Depreciated									
D H Mitchell - Units 4 and 5	55-S0.5	*	(15)	3,406.00	3,917	0	0	-	-
D H Mitchell - Units 4, 5 and 6	55-S0.5	*	(15)	23,449.76	26,967	0	0	-	-
D H Mitchell - Units 4, 5, 6 and 11	55-S0.5	*	(15)	181,478.19	208,700	0	0	-	-
D H Mitchell - Units 5 and 6	55-S0.5	*	(15)	2,223,011.05	2,556,463	0	0	-	-
D H Mitchell Generating Station	55-S0.5	*	(15)	11,687,735.47	13,440,896	0	0	-	-
D H Mitchell - Unit 4	55-S0.5	*	(15)	2,046,330.68	2,353,280	0	0	-	-
D H Mitchell - Unit 5	55-S0.5	*	(15)	813,155.09	935,128	0	0	-	-
D H Mitchell - Unit 6	55-S0.5	*	(15)	905,865.71	1,041,746	0	0	-	-
D H Mitchell - Unit 11	55-S0.5	*	(15)	4,327,082.96	4,976,145	0	0	-	-
Michigan City - Units 2 and 3	55-S0.5	*	(12)	1,358,044.41	1,521,010	0	0	-	-
Michigan City - Unit 2	55-S0.5	*	(12)	192,781.90	215,916	0	0	-	-
Michigan City - Unit 3	55-S0.5	*	(12)	57,845.17	64,787	0	0	-	-
Total Fully Depreciated Account 315				*23,820,186.39*	*27,344,955*	*0*	*0*	-	-
Depreciable									
Bailly - Units 7 and 8	55-S0.5	*	(11)	3,105,412.34	2,135,040	1,311,966	81,469	2.62	16.1
Bailly Generating Station	55-S0.5	*	(11)	4,061,032.24	2,867,796	1,639,951	101,868	2.51	16.1
Bailly - Unit 7	55-S0.5	*	(11)	9,450,528.10	8,529,423	1,960,662	161,551	1.71	12.1
Bailly - Unit 8	55-S0.5	*	(11)	17,975,699.48	13,480,383	6,472,643	403,549	2.24	16.0
Michigan City Generating Station	55-S0.5	*	(23)	18,686,262.45	11,183,326	11,800,775	570,645	3.05	20.7
Michigan City - Unit 12	55-S0.5	*	(23)	18,171,769.32	15,901,470	6,449,808	333,750	1.84	19.3
R M Schahfer - Units 14 and 15	55-S0.5	*	(22)	3,154,470.45	2,180,389	1,668,065	73,396	2.33	22.7
R M Schahfer - Units 14, 15, 17 and 18	55-S0.5	*	(22)	3,480,190.50	2,022,962	2,222,870	85,165	2.45	26.1
R M Schahfer - Units 17 and 18	55-S0.5	*	(22)	37,131,517.76	27,380,877	17,919,575	727,268	1.96	24.6
R M Schahfer Generating Station	55-S0.5	*	(22)	27,524,153.13	22,468,654	11,110,813	467,728	1.70	23.8
R M Schahfer - Unit 14	55-S0.5	*	(22)	22,613,436.02	19,063,845	8,524,546	416,936	1.84	20.4
R M Schahfer - Unit 15	55-S0.5	*	(22)	21,151,650.00	17,054,533	8,750,482	399,153	1.89	21.9
R M Schahfer - Unit 17	55-S0.5	*	(22)	35,352,544.33	28,018,180	15,111,925	653,248	1.85	23.1
R M Schahfer - Unit 18	55-S0.5	*	(22)	29,650,217.05	22,443,333	13,729,932	566,123	1.91	24.3
Total Depreciable Account 315				*251,508,883.17*	*194,730,211*	*108,674,013*	*5,041,849*	*2.00*	*21.6*
Total Account 315				275,329,069.56	222,075,166	108,674,013	5,041,849	1.83	21.6
316.00 MISCELLANEOUS POWER PLANT EQUIPMENT									
Fully Depreciated									
D H Mitchell - Units 4, 5, 6 and 11	55-R2	*	(15)	1,996,146.51	2,295,568	0	0	-	-
D H Mitchell - Units 5 and 6	55-R2	*	(15)	29,770.31	34,236	0	0	-	-
D H Mitchell Generating Station	55-R2	*	(15)	513,130.14	590,100	0	0	-	-
D H Mitchell - Unit 4	55-R2	*	(15)	76,128.98	87,548	0	0	-	-
D H Mitchell - Unit 5	55-R2	*	(15)	20,757.76	23,871	0	0	-	-
D H Mitchell - Unit 6	55-R2	*	(15)	19,890.95	22,875	0	0	-	-
D H Mitchell - Unit 11	55-R2	*	(15)	194,750.87	223,964	0	0	-	-
Michigan City - Units 2 and 3	55-R2	*	(12)	114,046.85	127,732	0	0	-	-
Total Fully Depreciated Account 316				*2,964,622.37*	*3,405,894*	*0*	*0*	-	-
Depreciable									
Bailly - Units 7 and 8	55-R2	*	(11)	2,927,647.55	2,049,974	1,199,714	72,078	2.46	16.6
Bailly Generating Station	55-R2	*	(11)	1,563,268.86	1,040,115	695,113	41,888	2.68	16.6
Bailly - Unit 7	55-R2	*	(11)	269,126.73	232,980	65,750	5,266	1.96	12.5
Bailly - Unit 8	55-R2	*	(11)	639,481.50	547,398	162,427	9,777	1.53	16.6
Michigan City - Units 2, 3 and 12	55-R2	*	(23)	1,069,946.64	810,872	505,162	24,018	2.24	21.0
Michigan City Generating Station	55-R2	*	(23)	1,544,233.84	1,427,408	471,999	23,166	1.50	20.4
Michigan City - Unit 12	55-R2	*	(23)	2,783,267.78	2,419,148	1,004,271	48,602	1.75	20.7
R M Schahfer - Units 14 and 15	55-R2	*	(22)	662,704.36	527,511	280,989	11,884	1.79	23.6
R M Schahfer - Units 14, 15, 17 and 18	55-R2	*	(22)	9,121,082.02	7,653,331	3,474,389	135,884	1.49	25.6

NORTHERN INDIANA PUBLIC SERVICE COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT JUNE 30, 2010

DEPRECIABLE GROUP	SURVIVOR CURVE		NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
316.00 MISCELLANEOUS POWER PLANT EQUIPMENT,cont.									
R M Schahfer - Units 17 and 18	55-R2	*	(22)	1,642,108.71	914,550	1,088,823	38,569	2.35	28.2
R M Schahfer Generating Station	55-R2	*	(22)	1,266,399.26	663,662	881,345	31,371	2.48	28.1
R M Schahfer - Unit 14	55-R2	*	(22)	2,933,870.97	2,423,465	1,155,859	52,677	1.80	21.9
R M Schahfer - Unit 15	55-R2	*	(22)	3,380,063.92	2,463,809	1,659,868	69,833	2.07	23.8
R M Schahfer - Unit 17	55-R2	*	(22)	4,388,171.42	3,103,003	2,250,565	87,437	1.99	25.7
R M Schahfer - Unit 18	55-R2	*	(22)	4,416,535.45	3,022,096	2,366,077	87,272	1.98	27.1
Total Depreciable Account 316				*38,607,909.01*	*29,299,322*	*17,262,351*	*739,722*	*1.92*	*23.3*
Total Account 316				41,572,531.38	32,705,216	17,262,351	739,722	1.78	23.3
TOTAL STEAM PRODUCTION PLANT				3,046,225,462.23	2,013,504,327	1,626,691,293	80,804,107	2.65	20.1
HYDRO PLANT									
331.00 STRUCTURES AND IMPROVEMENTS									
Norway Generating Station	75-R2.5	*	(75)	1,066,344.27	223,385	1,642,719	66,571	6.24	24.7
Oakdale Generating Station	75-R2.5	*	(75)	1,928,850.83	385,102	2,990,385	119,189	6.18	25.1
Total Account 331				2,995,195.10	608,487	4,633,104	185,760	6.20	24.9
332.00 RESERVOIRS, DAMS AND WATERWAYS									
Norway Generating Station	100-R2.5	*	(75)	2,167,966.12	275,861	3,518,080	140,252	6.47	25.1
Oakdale Generating Station	100-R2.5	*	(75)	3,971,642.29	497,905	6,452,468	260,405	6.56	24.8
Total Account 332				6,139,608.41	773,766	9,970,548	400,657	6.53	24.9
333.00 WATER WHEELS, TURBINES & GENERATORS									
Norway Generating Station	70-R2.5	*	(30)	1,686,700.42	934,047	1,258,663	49,576	2.94	25.4
Oakdale Generating Station	70-R2.5	*	(30)	3,054,504.90	1,962,403	2,008,455	79,908	2.62	25.1
Total Account 333				4,741,205.32	2,896,450	3,267,118	129,484	2.73	25.2
334.00 ACCESSORY ELECTRIC EQUIPMENT									
Norway Generating Station	50-L1.5	*	(20)	1,472,741.49	487,442	1,279,848	60,476	4.11	21.2
Oakdale Generating Station	50-L1.5	*	(20)	311,991.12	125,390	249,000	12,480	4.00	20.0
Total Account 334				1,784,732.61	612,832	1,528,848	72,956	4.09	21.0
335.00 MISCELLANEOUS POWER PLANT EQUIPMENT									
Norway Generating Station	45-L1.5	*	0	25,276.37	19,899	5,377	315	1.25	17.1
Oakdale Generating Station	45-L1.5	*	0	54,433.61	33,544	20,889	1,106	2.03	18.9
Total Account 335				79,709.98	53,443	26,266	1,421	1.78	18.5
TOTAL HYDRO PLANT				15,740,451.42	4,944,978	19,425,884	790,278	5.02	24.6
GAS TURBINE PLANT									
341.00 STRUCTURES AND IMPROVEMENTS									
Bailly - Unit 10	45-S3	*	(5)	379,049.43	340,174	57,828	6,425	1.70	9.0
D H Mitchell - Unit 9A	45-S3	*	(5)	93,581.36	98,260	0	0	-	-
R M Schahfer - Units 16A and 16B	45-S3	*	(5)	962,734.21	965,216	45,655	4,570	0.47	10.0
R M Schahfer - Unit 16A	45-S3	*	(5)	718,563.16	754,491	0	0	-	-
R M Schahfer - Unit 16B	45-S3	*	(5)	169,194.42	177,654	0	0	-	-
Total Account 341				2,323,122.58	2,335,795	103,483	10,995	0.47	9.4
342.00 FUEL HOLDERS, PRODUCTS & ACCESSORIES									
Bailly - Unit 10	50-S2.5	*	(10)	386,076.64	424,684	0	0	-	-
D H Mitchell - Unit 9A	50-S2.5	*	(10)	314,701.57	346,172	0	0	-	-
R M Schahfer - Units 16A and 16B	50-S2.5	*	(10)	5,161,953.91	5,678,149	0	0	-	-
R M Schahfer - Unit 16A	50-S2.5	*	(10)	2,213,631.85	2,425,725	9,270	982	0.04	9.4
R M Schahfer - Unit 16B	50-S2.5	*	(10)	1,298,100.65	1,381,909	46,002	4,873	0.38	9.4
Total Account 342				9,374,464.62	10,256,[illegible]	55,272	5,855	0.06	9.4

NORTHERN INDIANA PUBLIC SERVICE COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT JUNE 30, 2010

DEPRECIABLE GROUP	SURVIVOR CURVE		NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
343.00 PRIME MOVERS									
Bailly - Unit 10	45-R3	*	(15)	4,362,841.83	3,240,312	1,776,957	199,268	4.57	8.9
D H Mitchell Generating Station	45-R3	*	(15)	4,300.00	4,945	0	0	-	-
D H Mitchell - Unit 9A	45-R3	*	(15)	1,618,563.80	1,861,348	0	0	-	-
R M Schahfer - Units 16A and 16B	45-R3	*	(15)	2,205,034.00	2,240,500	295,289	30,828	1.40	9.6
R M Schahfer - Unit 16A	45-R3	*	(15)	10,989,946.47	9,169,448	3,468,991	352,857	3.21	9.8
R M Schahfer - Unit 16B	45-R3	*	(15)	9,245,368.03	10,184,562	447,611	47,719	0.52	9.4
Total Account 343				28,426,054.13	26,701,115	5,988,848	630,672	2.22	9.5
344.00 GENERATORS									
Bailly - Unit 10	50-R2.5	*	(5)	560,342.96	588,360	0	0	-	-
D H Mitchell - Unit 9A	50-R2.5	*	(5)	362,846.59	380,989	0	0	-	-
R M Schahfer - Unit 16A	50-R2.5	*	(5)	2,385,808.01	2,461,392	43,706	4,771	0.20	9.2
R M Schahfer - Unit 16B	50-R2.5	*	(5)	2,438,664.70	2,477,945	82,653	8,745	0.36	9.5
Total Account 344				5,747,662.26	5,908,686	126,359	13,516	0.24	9.3
345.00 ACCESSORY ELECTRIC EQUIPMENT									
Bailly - Unit 10	35-S3	*	(10)	1,529,624.02	844,988	837,599	93,067	6.08	9.0
D H Mitchell - Unit 9A	35-S3	*	(10)	551,657.04	606,823	0	0	-	-
R M Schahfer - Units 16A and 16B	35-S3	*	(10)	24,932.57	27,426	0	0	-	-
R M Schahfer - Unit 16A	35-S3	*	(10)	814,685.83	896,154	0	0	-	-
R M Schahfer - Unit 16B	35-S3	*	(10)	802,520.56	882,773	0	0	-	-
Total Account 345				3,723,420.02	3,258,164	837,599	93,067	2.50	9.0
346.00 MISCELLANEOUS POWER PLANT EQUIPMENT									
Bailly - Unit 10	50-R3	*	(5)	272,980.13	281,864	4,766	534	0.20	8.9
D H Mitchell - Unit 9A	50-R3	*	(5)	24,897.51	26,142	0	0	-	-
R M Schahfer - Units 16A and 16B	50-R3	*	(5)	75,461.91	63,619	15,616	1,579	2.09	9.9
R M Schahfer - Unit 16A	50-R3	*	(5)	37,121.99	38,978	0	0	-	-
R M Schahfer - Unit 16B	50-R3	*	(5)	24,085.33	25,290	0	0	-	-
Total Account 346				434,546.87	435,893	20,382	2,113	0.49	9.6
TOTAL GAS TURBINE PLANT				50,029,270.48	48,896,292	7,131,943	756,218	1.51	9.4
TRANSMISSION PLANT									
350.20 LAND RIGHTS	65-R4		0	11,256,803.72	9,139,848	2,116,958	61,680	0.55	34.3
352.00 STRUCTURES AND IMPROVEMENTS	50-R1.5		(15)	14,266,030.96	6,366,793	10,039,146	371,714	2.61	27.0
353.00 STATION EQUIPMENT	43-S0		(10)	386,436,813.15	141,206,541	283,873,955	12,020,903	3.11	23.6
354.00 TOWERS AND FIXTURES	60-R4		(40)	88,019,126.08	74,366,640	48,860,139	1,750,386	1.99	27.9
355.00 POLES AND FIXTURES	52-R1.5		(35)	111,722,828.35	53,115,893	97,709,925	3,133,110	2.80	31.2
356.00 OVERHEAD CONDUCTORS AND DEVICES	55-R2.5		(35)	134,393,950.55	83,277,277	98,154,559	3,096,548	2.30	31.7
357.00 UNDERGROUND CONDUIT	55-S3		0	213,924.73	183,517	30,408	852	0.40	35.7
358.00 UNDERGROUND CONDUCTORS AND DEVICES	40-R1		0	954,007.16	241,806	712,200	31,410	3.29	22.7
359.00 ROADS AND TRAILS	60-R5		0	70,027.38	55,427	14,600	520	0.74	28.1
TOTAL TRANSMISSION PLANT				747,333,512.08	367,953,742	541,511,890	20,467,123	2.74	26.5
DISTRIBUTION PLANT									
360.20 LAND RIGHTS	65-R4		0	691,245.47	265,178	426,072	8,394	1.21	50.8
361.00 STRUCTURES AND IMPROVEMENTS	50-R1.5		(10)	11,833,786.22	6,537,512	6,479,653	258,299	2.18	25.1
362.00 STATION EQUIPMENT	45-S0.5		(10)	207,107,251.14	91,586,315	136,231,661	5,956,243	2.88	22.9

NORTHERN INDIANA PUBLIC SERVICE COMPANY

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	DEPRECIABLE GROUP	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	POLES, TOWERS AND FIXTURES								
364.10	Customer Transformer Station	43-S0.5	(40)	35,930,232.10	20,669,947	29,632,382	1,185,213	3.30	25.0
364.20	Poles, Towers, and Fixtures	39-R1	(40)	244,743,171.68	96,036,752	246,603,688	11,760,188	4.81	21.0
	Total Account 364			280,673,403.78	116,706,699	276,236,070	12,945,401	4.61	21.3
365.00	OVERHEAD CONDUCTORS AND DEVICES	52-R1.5	(60)	180,483,042.65	142,836,955	145,935,913	4,753,240	2.63	30.7
366.00	UNDERGROUND CONDUIT	65-S3	(5)	3,986,521.46	2,097,918	2,087,930	52,255	1.31	40.0
367.00	UNDERGROUND CONDUCTORS & DEVICES	50-R2.5	(25)	231,528,427.32	87,138,382	202,272,152	6,011,834	2.60	33.6
368.00	LINE TRANSFORMERS	38-R1.5	4	211,942,356.55	109,793,156	93,671,507	4,243,536	2.00	22.1
	SERVICES								
369.10	Overhead Services	45-R1	(20)	37,503,847.84	43,574,710	1,429,908	62,106	0.17	23.0
369.20	Underground Services	55-S2	(20)	146,092,319.43	122,489,263	52,821,520	1,230,568	0.84	42.9
	Total Account 369			183,596,167.27	166,063,973	54,251,428	1,292,674	0.70	42.0
	METERS								
370.10	Customer Metering Stations	38-R2	0	12,772,581.58	6,234,142	6,538,444	298,280	2.34	21.9
370.20	Meters	32-O1	0	58,882,795.25	23,215,568	35,667,230	2,185,489	3.71	16.3
	Total Account 370			71,655,376.83	29,449,710	42,205,674	2,483,769	3.47	17.0
371.00	INSTALLATIONS ON CUSTOMER PREMISES	17-O1	(25)	7,342,218.61	5,190,123	3,987,648	437,219	5.95	9.1
373.00	STREET LIGHTING AND SIGNAL SYSTEMS	32-S0	(40)	36,758,790.07	32,065,512	19,396,792	1,111,861	3.02	17.4
	TOTAL DISTRIBUTION PLANT			1,427,598,587.37	789,731,433	983,182,500	39,554,725	2.77	24.9
	GENERAL PLANT								
390.00	STRUCTURES AND IMPROVEMENTS	47-R1.5	(5)	15,437,742.09	9,126,839	7,082,788	267,813	1.73	26.4
	OFFICE FURNITURE AND EQUIPMENT								
391.10	Office Furniture and Equipment								
	Fully Accrued			2,756,946.83	2,756,947	0	0	-	-
	Amortized	20-SQ	0	4,299,477.71	121,534	4,177,942	544,013	12.65	7.7
	Subtotal Account 391.1			*7,056,424.54*	*2,878,481*	*4,177,942*	*544,013*	*7.71*	*7.7*
391.20	Computers and Peripheral Equipment								
	Fully Accrued			26,057,168.52	26,057,169	0	0	-	-
	Amortized	7-SQ	0	17,692,284.34	(14,603,546)	32,295,829	14,346,764	81.09	2.3
	Subtotal Account 391.2			*43,749,452.86*	*11,453,623*	*32,295,829*	*14,346,764*	*32.79*	*2.3*
	Total Account 391			50,805,877.40	14,332,104	36,473,771	14,890,777	29.31	2.4
393.00	STORES EQUIPMENT								
	Fully Accrued			339,128.91	339,129	0	0	-	-
	Amortized	30-SQ	0	1,635,751.55	699,277	936,472	147,301	9.01	6.4
	Total Account 393			1,974,880.46	1,038,406	936,472	147,301	7.46	6.4
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT								
	Fully Accrued			4,187,159.06	4,187,159	0	0	-	-
	Amortized	25-SQ	0	16,531,938.48	6,988,922	9,543,018	1,295,044	7.83	7.4
	Total Account 394			20,719,097.54	11,176,081	9,543,018	1,295,044	6.25	7.4
395.00	LABORATORY EQUIPMENT								
	Fully Accrued			8,937,330.79	8,937,331	0	0	-	-
	Amortized	20-SQ	0	9,353,712.67	1,412,960	7,940,752	1,712,196	18.30	4.6
	Total Account 395			18,291,043.46	10,350,291	7,940,752	1,712,196	9.36	4.6
397.00	COMMUNICATION EQUIPMENT								
	Fully Accrued			4,583,994.74	4,583,995	0	0	-	-
	Amortized	15-SQ	0	16,460,949.59	4,719,747	[illegible]	[illegible]	[illegible]	4.8
	Total Account 397			21,044,944.33	9,303,742	11,741,202	2,433,819	11.56	4.8

NORTHERN INDIANA PUBLIC SERVICE COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT JUNE 30, 2010

DEPRECIABLE GROUP	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST AT JUNE 30, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
398.00 MISCELLANEOUS EQUIPMENT								
Fully Accrued			25,935.93	25,936	0	0	-	-
Amortized	20-SQ	0	2,051,490.96	345,518	1,705,974	133,235	6.49	12.8
Total Account 398			2,077,426.89	371,454	1,705,974	133,235	6.41	12.8
TOTAL DEPRECIABLE GENERAL PLANT			**130,351,012.17**	**55,698,917**	**75,423,977**	**20,880,185**		
NONDEPRECIABLE								
302.00 FRANCHISES AND CONSENTS			1,389.41					
303.00 MISCELLANEOUS INTANGIBLE PLANT			33,932,196.29	28,677,797				
310.00 LAND AND LAND RIGHTS			4,985,072.47					
330.00 LAND AND LAND RIGHTS			23,137.24					
340.00 LAND AND LAND RIGHTS			0.00					
350.10 LAND			16,659,090.57					
360.10 LAND			2,314,742.87					
389.00 LAND AND LAND RIGHTS			200,133.00					
ACCOUNTS NOT STUDIED								
TRANSPORTATION EQUIPMENT								
392.10 Transportation Equipment - Autos			42,796.48	(1,018,622)			**	
392.20 Transportation Equipment - Trailers			2,078,046.78	940,406			**	
392.30 Transportation Equipment - Trucks < 13,000			2,961,028.26	2,281,648			**	
392.40 Transportation Equipment - Trucks > 13,000			1,074,985.57	2,443,402			**	
396.00 POWER OPERATED EQUIPMENT			22,708,765.05	23,314,079			**	
TOTAL NONDEPRECIABLE AND ACCOUNTS NOT STUDIED			**86,981,383.99**	**56,638,710**				
TOTAL PLANT			**5,504,259,679.74**	**3,337,368,399**	**3,253,367,487**	**163,252,636**		

*Interim survivor curves used. Each location has a unique probable retirement date.

**Accrual rate to be booked to new additions as of July 1, 2010.

Account	Rate
392.10	14.23
392.20	6.34
392.30	9.67
392.40	7.55
396.00	7.01

Note: Accrual rates for the Sugar Creek assets as of July 1, 2010.

Account	Rate
311.00	2.23
312.00	4.19
314.00	2.94
315.00	3.24
341.00	3.02
342.00	3.14
343.00	3.58
344.00	3.39
345.00	3.69
346.00	3.14

ENTERGY ARKANSAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
	STEAM PRODUCTION PLANT								
311.0	STRUCTURES AND IMPROVEMENTS								
	WHITE BLUFF COMMON	100-R2.5 *	(18)	3,506,048.56	1,435,525	2,701,612	87,318	2.49	30.9
	WHITE BLUFF UNIT 1	100-R2.5 *	(18)	34,368,834.51	28,002,470	12,552,754	423,381	1.23	29.6
	WHITE BLUFF UNIT 2	100-R2.5 *	(18)	6,976,092.18	5,653,747	2,578,044	84,026	1.20	30.7
	COUCH COMMON	100-R2.5 *	(32)	832,612.87	479,284	619,765	95,787	11.50	6.5
	COUCH UNIT 1	100-R2.5 *	(32)	892,992.54	897,320	281,431	178,152	19.95	1.6
	COUCH UNIT 2	100-R2.5 *	(32)	1,706,512.69	1,694,339	558,257	86,225	5.05	6.5
	WHITE BLUFF SKILLS CENTER	100-R2.5 *	(18)	340,073.53	264,244	137,043	4,450	1.31	30.8
	INDEPENDENCE COMMON	100-R2.5 *	(17)	10,855,387.79	7,871,841	4,828,962	146,009	1.35	33.1
	INDEPENDENCE UNIT 1	100-R2.5 *	(17)	970,754.67	730,001	405,780	12,540	1.29	32.4
	LAKE CATHERINE COMMON	100-R2.5 *	(40)	1,339,098.99	789,227	1,085,511	128,823	9.62	8.4
	LAKE CATHERINE UNIT 1	100-R2.5 *	(40)	1,124,073.76	1,516,549	57,155	6,866	0.61	8.3
	LAKE CATHERINE UNIT 2	100-R2.5 *	(40)	1,137,523.99	1,534,696	57,837	6,979	0.61	8.3
	LAKE CATHERINE UNIT 3	100-R2.5 *	(40)	1,257,394.16	1,520,524	239,828	29,053	2.31	8.3
	LAKE CATHERINE UNIT 4	100-R2.5 *	(40)	4,675,696.98	5,272,078	1,273,899	150,788	3.22	8.4
	LYNCH COMMON	100-R2.5 *	(34)	1,379,950.07	296,208	1,552,925	240,076	17.40	6.5
	LYNCH UNIT 1	100-R2.5 *	(34)	1,101,447.75	1,347,967	127,974	91,309	8.29	1.4
	LYNCH UNIT 2	100-R2.5 *	(34)	1,353,869.92	1,641,601	172,585	115,926	8.56	1.5
	LYNCH UNIT 3	100-R2.5 *	(34)	2,052,082.85	2,511,367	238,424	36,830	1.79	6.5
	MOSES COMMON	100-R2.5 *	(34)	488,940.64	194,992	460,189	61,541	12.59	7.5
	MOSES UNIT 1	100-R2.5 *	(34)	1,389,018.15	1,699,899	161,383	21,690	1.56	7.4
	MOSES UNIT 2	100-R2.5 *	(34)	1,363,953.67	1,669,225	158,472	21,331	1.56	7.4
	RITCHIE COMMON	100-R2.5 *	(25)	2,477,634.35	2,718,744	378,299	250,118	10.10	1.5
	RITCHIE UNIT 1	100-R2.5 *	(25)	1,844,012.28	1,668,009	637,010	419,873	22.77	1.5
	TOTAL ACCOUNT 311			83,434,006.90	71,409,857	31,265,139	2,699,091	3.24	11.6
312.0	BOILER PLANT EQUIPMENT								
	WHITE BLUFF COMMON	75-R2.5 *	(18)	43,163,929.46	4,509,589	46,423,849	1,579,157	3.66	29.4
	WHITE BLUFF UNIT 1	75-R2.5 *	(18)	133,607,265.37	90,639,086	67,017,485	2,379,674	1.78	28.2
	WHITE BLUFF UNIT 2	75-R2.5 *	(18)	127,127,103.19	85,107,190	64,902,790	2,228,136	1.75	29.1
	COUCH COMMON	75-R2.5 *	(32)	27,219.28	17,395	18,534	2,870	10.54	6.5
	COUCH UNIT 1	75-R2.5 *	(32)	1,112,089.44	1,089,046	378,914	243,122	21.86	1.6
	COUCH UNIT 2	75-R2.5 *	(32)	8,142,291.35	7,900,359	2,847,467	455,646	5.60	6.2
	INDEPENDENCE COMMON	75-R2.5 *	(17)	16,387,658.27	11,609,619	7,563,942	241,872	1.48	31.3
	INDEPENDENCE UNIT 1	75-R2.5 *	(17)	72,276,093.09	51,477,295	33,085,735	1,090,823	1.51	30.3
	LAKE CATHERINE COMMON	75-R2.5 *	(40)	421,604.27	361,753	228,493	27,140	6.44	8.4
	LAKE CATHERINE UNIT 1	75-R2.5 *	(40)	2,493,451.45	2,504,436	986,396	120,536	4.83	8.2
	LAKE CATHERINE UNIT 2	75-R2.5 *	(40)	2,251,661.20	2,437,062	715,264	87,491	3.89	8.2
	LAKE CATHERINE UNIT 3	75-R2.5 *	(40)	5,575,712.48	5,031,209	2,774,786	344,566	6.18	8.1
	LAKE CATHERINE UNIT 4	75-R2.5 *	(40)	24,930,081.88	26,585,700	8,316,416	1,000,664	4.01	8.3
	LYNCH UNIT 1	75-R2.5 *	(34)	54,069.83	55,141	17,312	11,637	21.52	1.5
	LYNCH UNIT 2	75-R2.5 *	(34)	3,960,126.48	2,879,571	2,427,001	1,630,327	41.17	1.5
	LYNCH UNIT 3	75-R2.5 *	(34)	8,133,278.39	8,176,972	2,721,621	431,745	5.31	6.3
	MOSES COMMON	75-R2.5 *	(34)	1,817,690.04	339,908	2,095,797	281,343	15.48	7.4
	MOSES UNIT 1	75-R2.5 *	(34)	2,848,473.46	3,548,080	268,875	36,948	1.30	7.3
	MOSES UNIT 2	75-R2.5 *	(34)	2,895,551.35	3,605,546	274,494	37,556	1.30	7.3
	RITCHIE COMMON	75-R2.5 *	(25)	779,746.99	495,704	478,980	318,443	40.84	1.5
	RITCHIE UNIT 1	75-R2.5 *	(25)	20,175,933.83	20,979,541	4,240,379	2,797,116	13.86	1.5
	TOTAL ACCOUNT 312			478,181,031.10	329,350,202	247,784,530	15,346,812	3.21	16.1

ENTERGY ARKANSAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
314.0	TURBOGENERATOR UNITS									
	WHITE BLUFF COMMON	60-R2	*	(18)	678,049.19	277,569	522,528	18,677	2.75	28.0
	WHITE BLUFF UNIT 1	60-R2	*	(18)	38,107,292.06	29,662,910	15,303,694	617,459	1.62	24.8
	WHITE BLUFF UNIT 2	60-R2	*	(18)	46,184,545.82	35,448,930	19,048,834	748,870	1.62	25.4
	COUCH COMMON	60-R2	*	(32)	51,072.79	7,316	60,100	9,361	18.33	6.4
	COUCH UNIT 1	60-R2	*	(32)	857,430.07	889,897	241,911	152,316	17.76	1.6
	COUCH UNIT 2	60-R2	*	(32)	4,979,276.94	4,393,656	2,178,987	353,110	7.09	6.2
	INDEPENDENCE COMMON	60-R2	*	(17)	858,348.41	649,056	355,211	13,197	1.54	26.9
	INDEPENDENCE UNIT 1	60-R2	*	(17)	31,924,350.86	24,481,153	12,870,337	479,380	1.50	26.8
	LAKE CATHERINE COMMON	60-R2	*	(40)	152,416.03	75,820	137,562	16,519	10.84	8.3
	LAKE CATHERINE UNIT 1	60-R2	*	(40)	1,706,360.24	2,202,590	186,315	23,897	1.40	7.8
	LAKE CATHERINE UNIT 2	60-R2	*	(40)	1,703,346.00	2,197,844	186,840	23,888	1.40	7.8
	LAKE CATHERINE UNIT 3	60-R2	*	(40)	3,172,552.81	3,230,682	1,210,892	163,627	5.16	7.4
	LAKE CATHERINE UNIT 4	60-R2	*	(40)	14,652,206.86	16,892,815	3,620,276	447,407	3.05	8.1
	LYNCH COMMON	60-R2	*	(34)	21,655.21	0	29,018	4,541	20.97	6.4
	LYNCH UNIT 2	60-R2	*	(34)	3,337,835.51	2,672,983	1,799,716	1,208,245	36.20	1.5
	LYNCH UNIT 3	60-R2	*	(34)	10,870,421.93	10,453,511	4,112,854	649,099	5.97	6.3
	MOSES UNIT 1	60-R2	*	(34)	3,327,070.09	3,423,611	1,034,663	146,168	4.39	7.1
	MOSES UNIT 2	60-R2	*	(34)	3,270,716.82	3,437,324	945,437	133,561	4.08	7.1
	RITCHIE COMMON	60-R2	*	(25)	125,047.88	122,575	33,737	22,348	17.87	1.5
	RITCHIE UNIT 1	60-R2	*	(25)	19,646,594.22	21,522,381	3,035,860	2,004,770	10.20	1.5
	TOTAL ACCOUNT 314				185,626,589.74	162,042,623	66,914,772	7,236,440	3.90	9.2
315.0	ACCESSORY ELECTRIC EQUIPMENT									
	WHITE BLUFF COMMON	60-R3	*	(18)	1,583,550.58	847,036	1,021,553	34,747	2.19	29.4
	WHITE BLUFF UNIT 1	60-R3	*	(18)	19,601,616.35	15,500,129	7,629,778	294,981	1.50	25.9
	WHITE BLUFF UNIT 2	60-R3	*	(18)	15,262,066.39	9,966,772	8,042,467	286,958	1.88	28.0
	COUCH COMMON	60-R3	*	(32)	308,700.92	212,027	195,458	30,197	9.78	6.5
	COUCH UNIT 1	60-R3	*	(32)	592,199.46	554,672	227,031	148,618	25.10	1.5
	COUCH UNIT 2	60-R3	*	(32)	2,966,470.04	3,485,627	430,114	66,642	2.25	6.5
	WHITE BLUFF SKILLS CENTER	60-R3	*	(18)	25,554.28	20,463	9,691	352	1.38	27.5
	INDEPENDENCE COMMON	60-R3	*	(17)	521,532.71	236,833	373,360	12,311	2.36	30.3
	INDEPENDENCE UNIT 1	60-R3	*	(17)	12,248,004.25	9,843,514	4,486,651	159,538	1.30	28.1
	LAKE CATHERINE COMMON	60-R3	*	(40)	298,890.55	265,056	153,392	18,172	6.08	8.4
	LAKE CATHERINE UNIT 1	60-R3	*	(40)	1,238,914.31	1,222,747	511,733	61,209	4.94	8.4
	LAKE CATHERINE UNIT 2	60-R3	*	(40)	1,133,641.57	1,175,127	411,971	48,834	4.31	8.4
	LAKE CATHERINE UNIT 3	60-R3	*	(40)	1,333,996.00	995,170	872,427	109,127	8.18	8.0
	LAKE CATHERINE UNIT 4	60-R3	*	(40)	5,646,775.80	5,942,814	1,962,672	233,397	4.13	8.4
	LYNCH COMMON	60-R3	*	(34)	280,920.22	24,117	352,316	54,382	19.36	6.5
	LYNCH UNIT 1	60-R3	*	(34)	240,447.77	301,127	21,072	14,925	6.21	1.4
	LYNCH UNIT 2	60-R3	*	(34)	977,218.73	608,217	701,255	469,924	48.09	1.5
	LYNCH UNIT 3	60-R3	*	(34)	1,909,892.63	1,702,831	856,424	137,076	7.18	6.2
	MOSES UNIT 1	60-R3	*	(34)	1,465,963.41	1,075,043	889,350	123,126	8.40	7.2
	MOSES UNIT 2	60-R3	*	(34)	1,401,285.09	1,044,922	832,801	115,419	8.24	7.2
	RITCHIE COMMON	60-R3	*	(25)	109,097.36	87,961	48,410	32,159	29.48	1.5
	RITCHIE UNIT 1	60-R2	*	(25)	3,517,654.21	3,768,987	628,083	418,007	11.88	1.5
	TOTAL ACCOUNT 315				72,664,392.63	58,881,192	30,658,009	2,870,101	3.95	10.7

ENTERGY ARKANSAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
316.0	MISCELLANEOUS POWER PLANT EQUIPMENT								
	WHITE BLUFF COMMON	55-R2 *	(18)	3,028,007.20	1,265,500	2,307,544	88,419	2.92	26.1
	WHITE BLUFF UNIT 1	55-R2 *	(18)	3,017,600.20	2,348,926	1,211,840	51,202	1.70	23.7
	WHITE BLUFF UNIT 2	55-R2 *	(18)	1,092,411.23	848,607	440,438	18,408	1.69	23.9
	COUCH COMMON	55-R2 *	(32)	281,380.36	124,929	246,492	38,629	13.73	6.4
	COUCH UNIT 1	55-R2 *	(32)	174,399.15	168,051	62,157	40,898	23.45	1.5
	COUCH UNIT 2	55-R2 *	(32)	278,812.94	290,934	77,099	13,005	4.66	5.9
	WHITE BLUFF SKILLS CENTER	55-R2 *	(18)	643,548.03	555,195	204,192	8,419	1.31	24.3
	INDEPENDENCE COMMON	55-R2 *	(17)	1,844,650.38	1,147,470	1,010,771	37,693	2.04	26.8
	INDEPENDENCE UNIT 1	55-R2 *	(17)	2,084,480.60	1,511,330	927,512	36,296	1.74	25.6
	LAKE CATHERINE COMMON	55-R2 *	(40)	1,007,997.56	755,305	655,893	79,124	7.85	8.3
	LAKE CATHERINE UNIT 1	55-R2 *	(40)	254,618.29	314,887	41,578	5,015	1.97	8.3
	LAKE CATHERINE UNIT 2	55-R2 *	(40)	249,514.57	308,576	40,745	4,923	1.97	8.3
	LAKE CATHERINE UNIT 3	55-R2 *	(40)	133,323.10	116,441	70,211	8,745	6.56	8.0
	LAKE CATHERINE UNIT 4	55-R2 *	(40)	647,936.89	475,424	431,686	52,497	8.10	8.2
	LYNCH COMMON	55-R2 *	(34)	71,613.76	47,749	48,213	7,564	10.56	6.4
	LYNCH UNIT 1	55-R2 *	(34)	124,382.78	154,190	12,483	8,627	6.94	1.4
	LYNCH UNIT 2	55-R2 *	(34)	310,741.34	131,142	285,255	191,059	61.48	1.5
	LYNCH UNIT 3	55-R2 *	(34)	624,684.47	446,577	390,502	62,964	10.08	6.2
	MOSES COMMON	55-R2 *	(34)	477,181.51	126,799	512,624	69,703	14.61	7.4
	MOSES UNIT 1	55-R2 *	(34)	179,413.60	222,408	18,006	2,526	1.41	7.1
	MOSES UNIT 2	55-R2 *	(34)	180,601.41	223,880	18,125	2,578	1.43	7.0
	RITCHIE COMMON	55-R2 *	(25)	528,742.74	527,739	133,191	88,821	16.80	1.5
	RITCHIE UNIT 1	55-R2 *	(25)	696,065.16	684,850	185,232	124,449	17.88	1.5
	TOTAL ACCOUNT 316			17,932,107.27	12,796,909	9,331,789	1,041,564	5.81	9.0
	TOTAL STEAM PRODUCTION PLANT			**837,838,127.64**	**634,480,783**	**385,954,239**	**29,194,008**	**3.48**	**13.2**
	NUCLEAR PRODUCTION PLANT								
320.2	LAND RIGHTS	70-R3 *	0	1,598,139.78	440,726	1,157,414	40,999	2.57	28.2
321.0	STRUCTURES AND IMPROVEMENTS								
	ARKANSAS NUCLEAR COMMON	70-R2.5 *	0	66,209,092.33	33,745,612	32,463,481	1,192,345	1.80	27.2
	ARKANSAS NUCLEAR UNIT 1	70-R2.5 *	0	122,788,990.36	85,760,410	37,028,581	1,579,233	1.29	23.4
	ARKANSAS NUCLEAR UNIT 2	70-R2.5 *	0	217,233,251.66	141,160,062	76,073,190	2,856,614	1.31	26.6
	TOTAL ACCOUNT 321			406,231,334.35	260,666,084	145,565,252	5,628,192	1.39	25.9
322.0	REACTOR PLANT EQUIPMENT								
	ARKANSAS NUCLEAR COMMON	40-R1.5 *	(2)	35,088,125.90	11,574,136	24,215,751	1,170,048	3.33	20.7
	ARKANSAS NUCLEAR UNIT 1	40-R1.5 *	(2)	470,569,649.54	106,147,164	373,833,880	20,730,520	4.41	18.0
	ARKANSAS NUCLEAR UNIT 2	40-R1.5 *	(2)	582,140,829.27	217,972,163	375,811,480	19,641,595	3.37	19.1
	TOTAL ACCOUNT 322			1,087,798,604.71	335,693,463	773,861,111	41,542,163	3.82	18.6

ENTERGY ARKANSAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
323.0	TURBOGENERATOR UNITS									
	ARKANSAS NUCLEAR COMMON	50-R3	*	(2)	5,598,944.50	1,841,900	3,869,024	145,782	2.60	26.5
	ARKANSAS NUCLEAR UNIT 1	50-R3	*	(2)	124,683,344.12	80,554,764	46,622,248	2,082,475	1.67	22.4
	ARKANSAS NUCLEAR UNIT 2	50-R3	*	(2)	163,765,290.28	80,915,977	86,124,621	3,605,467	2.20	23.9
	TOTAL ACCOUNT 323				294,047,578.90	163,312,641	136,615,893	5,833,724	1.98	23.4
324.0	ACCESSORY ELECTRIC EQUIPMENT									
	ARKANSAS NUCLEAR COMMON	60-R3	*	(1)	26,431,556.27	13,569,089	13,126,782	483,294	1.83	27.2
	ARKANSAS NUCLEAR UNIT 1	60-R3	*	(1)	98,418,813.06	71,325,214	28,077,787	1,200,541	1.22	23.4
	ARKANSAS NUCLEAR UNIT 2	60-R3	*	(1)	114,702,085.83	80,553,550	35,295,556	1,387,661	1.21	25.4
	TOTAL ACCOUNT 324				239,552,455.16	165,447,853	76,500,125	3,071,496	1.28	24.9
325.0	MISCELLANEOUS POWER PLANT EQUIPMENT									
	ARKANSAS NUCLEAR COMMON	50-R3	*	0	89,084,121.79	49,743,282	39,340,838	1,504,778	1.69	26.1
	ARKANSAS NUCLEAR UNIT 1	50-R3	*	0	81,901,689.46	54,473,320	27,428,371	1,181,047	1.44	23.2
	ARKANSAS NUCLEAR UNIT 2	50-R3	*	0	32,629,924.09	23,981,057	8,648,866	343,460	1.05	25.2
	TOTAL ACCOUNT 325				203,615,735.34	128,197,659	75,418,075	3,029,285	1.49	24.9
	TOTAL NUCLEAR PRODUCTION PLANT				**2,232,843,848.24**	**1,053,758,426**	**1,209,117,870**	**59,145,859**	**2.65**	**20.4**
	HYDRO PRODUCTION PLANT									
330.2	LAND RIGHTS	75-R3		0	267,370.97	47,282	220,089	3,784	1.42	58.2
331.0	STRUCTURES AND IMPROVEMENTS									
	CARPENTER COMMON	100-S2.5	*	(5)	616,356.65	216,473	430,702	9,937	1.61	43.3
	CARPENTER UNIT 1	100-S2.5	*	(5)	541,903.71	551,488	17,512	419	0.08	41.8
	CARPENTER UNIT 2	100-S2.5	*	(5)	541,898.80	551,485	17,508	419	0.08	41.8
	REMMEL COMMON	100-S2.5	*	(5)	803,418.31	344,201	499,387	11,629	1.45	42.9
	REMMEL UNIT 1	100-S2.5	*	(5)	63,529.66	58,707	8,000	188	0.30	42.6
	REMMEL UNIT 2	100-S2.5	*	(5)	99,585.69	85,899	18,665	438	0.44	42.6
	REMMEL UNIT 3	100-S2.5	*	(5)	89,388.29	84,241	9,617	227	0.25	42.4
	TOTAL ACCOUNT 331				2,756,081.11	1,892,494	1,001,391	23,257	0.84	43.1
332.0	RESERVOIRS DAMS AND WATERWAYS									
	CARPENTER COMMON	100-S2.5	*	(10)	2,392,549.89	866,828	1,764,977	41,539	1.74	42.5
	CARPENTER UNIT 1	100-S2.5	*	(10)	1,356,261.89	1,181,351	310,536	10,638	0.78	29.2
	CARPENTER UNIT 2	100-S2.5	*	(10)	1,376,308.56	1,224,788	289,151	10,296	0.75	28.1
	REMMEL COMMON	100-S2.5	*	(10)	8,135,092.97	2,066,715	6,881,886	159,363	1.96	43.2
	REMMEL UNIT 1	100-S2.5	*	(10)	512,550.06	431,141	132,666	4,216	0.82	31.5
	REMMEL UNIT 2	100-S2.5	*	(10)	513,327.01	432,154	132,506	4,215	0.82	31.4
	REMMEL UNIT 3	100-S2.5	*	(10)	513,473.04	432,291	132,530	4,217	0.82	31.4
	TOTAL ACCOUNT 332				14,799,563.42	6,635,268	9,644,252	234,484	1.58	41.1

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SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
333.0	WATERWHEELS, TURBINES AND GENERATORS									
	CARPENTER COMMON	90-S4	*	(15)	890,248.49	163,639	860,147	19,607	2.20	43.9
	CARPENTER UNIT 1	90-S4	*	(15)	2,465,227.34	1,357,573	1,477,440	33,818	1.37	43.7
	CARPENTER UNIT 2	90-S4	*	(15)	2,081,379.00	1,212,094	1,181,492	26,876	1.29	44.0
	REMMEL COMMON	90-S4	*	(15)	846,223.45	198,373	774,784	17,620	2.08	44.0
	REMMEL UNIT 1	90-S4	*	(15)	518,081.26	308,848	286,945	6,536	1.26	43.9
	REMMEL UNIT 2	90-S4	*	(15)	1,311,520.22	46,144	1,462,104	33,592	2.56	43.5
	REMMEL UNIT 3	90-S4	*	(15)	98,695.76	97,610	15,891	361	0.37	44.0
	TOTAL ACCOUNT 333				8,211,375.52	3,384,281	6,058,803	138,410	1.69	43.8
334.0	ACCESSORY ELECTRIC EQUIPMENT									
	CARPENTER COMMON	45-R2.5	*	(5)	91,769.73	22,549	73,809	2,501	2.73	29.5
	CARPENTER UNIT 1	45-R2.5	*	(5)	116,442.65	120,059	2,205	113	0.10	19.5
	CARPENTER UNIT 2	45-R2.5	*	(5)	295,892.86	215,984	94,702	4,698	1.59	20.2
	REMMEL COMMON	45-R2.5	*	(5)	126,812.48	23,969	109,184	3,632	2.86	30.1
	REMMEL UNIT 1	45-R2.5	*	(5)	122,720.78	92,697	36,159	1,775	1.45	20.4
	REMMEL UNIT 2	45-R2.5	*	(5)	31,977.06	27,926	5,648	766	2.40	7.4
	REMMEL UNIT 3	45-R2.5	*	(5)	31,973.31	27,922	5,649	765	2.39	7.4
	TOTAL ACCOUNT 334				817,588.87	531,106	327,356	14,250	1.74	23.0
335.0	MISCELLANEOUS POWER PLANT EQUIPMENT									
	CARPENTER COMMON	60-R2.5	*	0	1,451,276.00	406,061	1,045,216	29,976	2.07	34.9
	CARPENTER UNIT 1	60-R2.5	*	0	102,212.81	95,028	7,185	351	0.34	20.5
	CARPENTER UNIT 2	60-R2.5	*	0	103,975.82	85,882	18,094	1,533	1.47	11.8
	REMMEL COMMON	60-R2.5	*	0	303,190.66	1,643	301,547	8,712	2.87	34.6
	REMMEL UNIT 1	60-R2.5	*	0	14,837.51	7,245	7,592	482	3.25	15.8
	REMMEL UNIT 2	60-R2.5	*	0	14,829.65	7,227	7,602	483	3.26	15.7
	REMMEL UNIT 3	60-R2.5	*	0	14,825.73	7,218	7,607	484	3.26	15.7
	TOTAL ACCOUNT 335				2,005,148.18	610,304	1,394,843	42,021	2.10	33.2
	TOTAL HYDRO PRODUCTION PLANT				**28,857,128.07**	**13,100,735**	**18,646,734**	**456,206**	**1.58**	**40.9**
	OTHER PRODUCTION PLANT									
341.0	STRUCTURES AND IMPROVEMENTS									
	OUACHITA PLANT COMMON	50-S1.5	*	0	8,655,843.23	66,001	8,589,842	354,220	4.09	24.3
	OUACHITA PLANT UNIT 1	50-S1.5	*	0	3,118,427.19	23,778	3,094,649	127,614	4.09	24.3
	OUACHITA PLANT UNIT 2	50-S1.5	*	0	3,118,427.19	23,778	3,094,649	127,614	4.09	24.3
	OUACHITA PLANT UNIT 3	50-S1.5	*	0	3,118,427.19	23,778	3,094,649	127,614	4.09	24.3
	RITCHIE GAS TURBINE UNIT 3	50-S1.5	*	0	24,758.94	6,698	18,061	2,842	11.48	6.4
	MABELVALE GAS TURBINES UNIT 1	50-S1.5	*	0	101,366.92	24,660	76,707	51,170	50.48	1.5
	MABELVALE GAS TURBINES UNIT 2	50-S1.5	*	0	11,437.00	10,317	1,120	758	6.63	1.5
	MABELVALE GAS TURBINES UNIT 3	50-S1.5	*	0	11,435.00	9,501	1,934	1,309	11.45	1.5
	MABELVALE GAS TURBINES UNIT 4	50-S1.5	*	0	13,561.66	11,242	2,320	1,564	11.53	1.5
	TOTAL ACCOUNT 341				18,173,684.32	199,753	17,973,931	794,705	4.37	22.6

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SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
342.0	FUEL HOLDERS, PRODUCERS AND ACCESSORIES									
	RITCHIE GAS TURBINE UNIT 3	55-S2	*	(10)	104,634.63	112,965	2,133	348	0.33	6.1
	MABELVALE GAS TURBINES UNIT 1	55-S2	*	(10)	57,501.28	61,195	2,056	1,364	2.37	1.5
	MABELVALE GAS TURBINES UNIT 2	55-S2	*	(10)	49,038.00	51,490	2,451	1,615	3.29	1.5
	MABELVALE GAS TURBINES UNIT 3	55-S2	*	(10)	49,038.00	51,490	2,451	1,615	3.29	1.5
	MABELVALE GAS TURBINES UNIT 4	55-S2	*	(10)	49,037.00	51,490	2,451	1,615	3.29	1.5
	TOTAL ACCOUNT 342				309,248.91	328,630	11,542	6,557	2.12	1.8
343.0	PRIME MOVERS									
	RITCHIE GAS TURBINE UNIT 3	45-S1.5	*	(5)	1,068,648.06	1,218,624	(96,544)	0	-	-
	MABELVALE GAS TURBINES UNIT 1	45-S1.5	*	(5)	1,525,734.13	1,200,530	401,491	268,217	17.58	1.5
	MABELVALE GAS TURBINES UNIT 2	45-S1.5	*	(5)	1,534,628.32	1,275,331	336,028	224,465	14.63	1.5
	MABELVALE GAS TURBINES UNIT 3	45-S1.5	*	(5)	1,336,547.24	1,223,397	179,977	120,248	9.00	1.5
	MABELVALE GAS TURBINES UNIT 4	45-S1.5	*	(5)	1,448,518.62	1,254,433	266,511	178,046	12.29	1.5
	LYNCH DIESEL UNIT 4	45-S1.5	*	(5)	593,387.71	493,981	129,076	20,200	3.40	6.4
	TOTAL ACCOUNT 343				7,507,464.08	6,666,296	1,216,539	811,176	10.80	1.5
344.0	GENERATORS									
	OUACHITA PLANT COMMON	40-S1.5	*	(5)	17,582,386.23	132,955	18,328,551	788,325	4.48	23.2
	OUACHITA PLANT UNIT 1	40-S1.5	*	(5)	54,255,773.85	409,811	56,558,752	2,432,634	4.48	23.3
	OUACHITA PLANT UNIT 2	40-S1.5	*	(5)	53,745,730.45	409,811	56,023,206	2,409,600	4.48	23.3
	OUACHITA PLANT UNIT 3	40-S1.5	*	(5)	53,745,730.45	409,811	56,023,206	2,409,600	4.48	23.3
	RITCHIE GAS TURBINE UNIT 3	40-S1.5	*	(5)	374,294.43	421,566	(28,557)	0	-	-
	MABELVALE GAS TURBINES UNIT 1	40-S1.5	*	(5)	419,721.83	408,100	32,608	21,804	5.19	1.5
	MABELVALE GAS TURBINES UNIT 2	40-S1.5	*	(5)	568,988.61	547,701	49,738	33,918	5.96	1.5
	MABELVALE GAS TURBINES UNIT 3	40-S1.5	*	(5)	348,940.00	360,796	5,591	3,744	1.07	1.5
	MABELVALE GAS TURBINES UNIT 4	40-S1.5	*	(5)	607,166.14	577,336	60,189	41,113	6.77	1.5
	TOTAL ACCOUNT 344				181,648,731.99	3,677,887	187,053,284	8,140,738	4.48	23.0
345.0	ACCESSORY ELECTRIC EQUIPMENT									
	RITCHIE GAS TURBINE UNIT 3	45-S2.5	*	(5)	78,795.12	86,201	(3,467)	0	-	-
	MABELVALE GAS TURBINES UNIT 1	45-S2.5	*	(5)	983,307.06	110,983	921,489	614,594	62.50	1.5
	MABELVALE GAS TURBINES UNIT 2	45-S2.5	*	(5)	777,217.09	118,800	697,279	465,109	59.84	1.5
	MABELVALE GAS TURBINES UNIT 3	45-S2.5	*	(5)	112,567.57	88,153	30,043	20,064	17.82	1.5
	MABELVALE GAS TURBINES UNIT 4	45-S2.5	*	(5)	721,673.62	117,348	640,409	427,191	59.19	1.5
	TOTAL ACCOUNT 345				2,673,560.46	521,485	2,285,753	1,526,958	57.11	1.5
346.0	MISCELLANEOUS POWER PLANT EQUIPMENT									
	OUACHITA PLANT COMMON	35-R2.5	*	0	242,954.60	1,535	241,420	11,748	4.84	20.5
	RITCHIE GAS TURBINE UNIT 3	35-R2.5	*	0	164.84	195	(31)	0	-	-
	MABELVALE GAS TURBINES UNIT 1	35-R2.5	*	0	7,592.71	6,553	1,040	700	9.22	1.5
	MABELVALE GAS TURBINES UNIT 2	35-R2.5	*	0	3,147.00	3,053	94	68	2.16	1.4
	MABELVALE GAS TURBINES UNIT 3	35-R2.5	*	0	3,147.00	3,053	94	68	2.16	1.4
	MABELVALE GAS TURBINES UNIT 4	35-R2.5	*	0	4,004.48	3,844	160	112	2.80	1.4
	TOTAL ACCOUNT 346				261,010.63	18,233	242,777	12,696	4.86	19.1
	TOTAL OTHER PRODUCTION PLANT				**210,573,700.39**	**11,412,284**	**208,783,826**	**11,292,830**	**5.36**	**18.5**

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SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	TRANSMISSION PLANT								
350.2	LAND RIGHTS	75-R3	0	44,470,349.59	21,369,039	23,101,309	509,847	1.15	45.3
352.0	STRUCTURES AND IMPROVEMENTS	55-R3	(5)	35,421,529.11	12,189,528	25,003,079	745,155	2.10	33.6
353.0	STATION EQUIPMENT	51-R2	(10)	437,190,957.16	128,582,892	352,327,160	11,777,004	2.69	29.9
354.0	TOWERS AND FIXTURES	65-R4	(20)	142,462,858.68	78,325,217	92,630,210	2,555,105	1.79	36.3
355.0	POLES AND FIXTURES	50-R1.5	(20)	220,909,714.59	52,678,500	212,413,156	7,265,988	3.29	29.2
356.0	OVERHEAD CONDUCTORS AND DEVICES	60-R2.5	(25)	266,877,214.17	103,914,773	229,681,743	6,687,525	2.51	34.3
357.0	UNDERGROUND CONDUIT	50-S2.5	0	10,664.94	2,274	8,391	231	2.17	36.3
358.0	UNDERGROUND CONDUCTORS AND DEVICES	45-R2.5	(5)	39,153.16	2,979	38,131	1,174	3.00	32.5
359.0	ROADS AND TRAILS	75-R3	0	116,837.76	23,372	93,469	1,864	1.60	50.1
	TOTAL TRANSMISSION PLANT			**1,147,499,279.16**	**397,088,574**	**935,296,648**	**29,543,893**	**2.57**	**31.7**
	DISTRIBUTION PLANT								
360.2	LAND RIGHTS	65-R4	0	2,415,753.80	1,836,189	579,566	14,209	0.59	40.8
361.0	STRUCTURES AND IMPROVEMENTS	55-R3	(5)	13,168,291.32	5,399,195	8,427,513	255,175	1.94	33.0
362.0	STATION EQUIPMENT	54-R1.5	(10)	314,831,307.39	109,710,243	236,604,192	7,277,669	2.31	32.5
364.0	POLES, TOWERS AND FIXTURES	35-R0.5	(15)	440,327,760.57	160,054,854	346,322,072	19,230,906	4.37	18.0
365.0	OVERHEAD CONDUCTORS AND DEVICES	34-R0.5	(10)	353,446,607.97	105,630,745	283,160,526	16,086,280	4.55	17.6
366.0	UNDERGROUND CONDUIT	35-R2	0	78,630,335.94	7,820,117	70,810,222	3,694,844	4.70	19.2
367.0	UNDERGROUND CONDUCTORS AND DEVICES	31-S2	(5)	127,230,537.72	67,933,880	65,658,185	3,570,881	2.81	18.4
368.1	LINE TRANSFORMERS	28-R0.5	0	533,218,453.66	133,332,191	399,886,263	27,754,206	5.21	14.4
369.1	SERVICES - OVERHEAD	42-S2	(10)	94,548,984.23	42,440,933	61,562,946	2,136,845	2.26	28.8
369.2	SERVICES - UNDERGROUND	35-S2.5	(20)	102,698,939.41	49,489,513	73,749,215	3,671,914	3.58	20.1
370.0	METERS	29-R1	0	130,089,843.85	61,416,135	68,673,708	4,630,582	3.56	14.8
371.0	INSTALLATIONS ON CUSTOMERS' PREMISES	15-L2	(5)	30,000,436.15	14,658,883	16,841,572	2,619,200	8.73	6.4
373.0	STREET LIGHTING AND SIGNAL SYSTEMS	19-R0.5	(10)	76,867,470.41	56,488,602	28,065,616	2,909,686	3.79	9.6
	TOTAL DISTRIBUTION PLANT			**2,297,474,722.42**	**816,211,480**	**1,660,341,596**	**93,852,397**	**4.09**	**17.7**
	GENERAL PLANT								
390.0	STRUCTURES AND IMPROVEMENTS	50-R1.5	(10)	63,890,660.95	23,879,312	46,400,411	1,517,692	2.38	30.6
391.1	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	1,705,688.07	683,750	1,021,939	97,992	5.75	10.4
391.2	OFFICE FURNITURE AND EQUIPMENT - INFO SYS								
	FULLY AMORTIZED			19,391.98	19,392	0	0	-	-
	AMORTIZED	5-SQ	0	22,097,413.35	14,625,292	7,472,123	2,065,532	9.35	3.6
	TOTAL ACCOUNT 391.2			22,116,805.33	14,644,684	7,472,123	2,065,532	9.34	3.6
391.3	OFFICE FURNITURE AND EQUIPMENT - DATA HDLG EQ	15-SQ	0	741,529.75	565,915	175,616	14,978	2.02	11.7
392.0	TRANSPORTATION EQUIPMENT	15-R3	0	12,878.79	5,870	7,009	597	4.64	11.7
393.0	STORES EQUIPMENT	15-SQ	0	812,092.06	363,784	448,308	60,338	7.43	7.4
394.0	TOOLS, SHOP AND GARAGE EQUIPMENT	15-SQ	0	10,559,206.03	1,219,273	9,339,934	1,273,036	12.06	7.3
395.0	LABORATORY EQUIPMENT	10-SQ	0	1,267,504.23	120,338	1,147,165	305,584	24.11	3.8
396.0	POWER OPERATED EQUIPMENT	15-L2.5	0	233,490.58	202,870	30,620	24,856	10.65	1.2
397.1	COMMUNICATION EQUIPMENT	10-SQ	0	7,886,768.26	444,713	7,442,056	1,226,848	15.56	6.1

ENTERGY ARKANSAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
397.2	COMMUNICATION EQUIPMENT - MICROWAVE								
	FULLY AMORTIZED			7,256,281.10	7,256,281	0	0	-	-
	AMORTIZED	15-SQ	0	26,380,419.03	17,169,783	9,210,635	3,234,367	12.26	2.8
	TOTAL ACCOUNT 397.2			33,636,700.13	24,426,064	9,210,635	3,234,367	9.62	2.8
398.0	MISCELLANEOUS EQUIPMENT	10-SQ	0	2,787,229.53	1,213,432	1,573,798	339,487	12.18	4.6
399.0	OTHER TANGIBLE PROPERTY	40-R2.5	0	13,674,837.12	9,854,913	3,819,926	233,246	1.71	16.4
	TOTAL GENERAL PLANT			**159,325,390.83**	**77,624,918**	**88,089,540**	**10,394,553**	**6.52**	**8.5**
	TOTAL DEPRECIABLE PLANT			**6,914,412,196.75**	**3,003,677,200**	**4,506,230,453**	**233,879,746**	**3.38**	**19.3**
	NONDEPRECIABLE PLANT								
301.0	ORGANIZATION			33,365.68					
302.0	FRANCHISES AND CONSENTS			3,832,306.32					
303.0	MISCELLANEOUS INTANGIBLE PLANT			306,087,255.00					
310.9	LAND			2,128,382.31					
320.1	LAND			1,049,949.70					
330.1	LAND			1,038,812.04					
340.1	LAND			606,047.93					
350.1	LAND			4,740,146.25					
360.1	LAND			2,552,158.14	(20,542)				
389.1	LAND			3,431,406.38	(69,271)				
	TOTAL NONDEPRECIABLE PLANT			**325,499,829.75**	**(89,813)**				
	TOTAL ELECTRIC PLANT			**7,239,912,026.50**	**3,003,587,388**	**4,506,230,453**	**233,879,746**		

* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.

Proposed Accrual Rates for White Bluffs Units when Scrubbers installed in 2013

Account	Rate
White Bluffs Unit 1	
311.00	2.82
312.00	3.66
314.00	1.51
315.00	2.45
316.00	3.34
White Bluffs Unit 2	
311.00	3.82
312.00	3.58
314.00	1.52
315.00	2.80
316.00	4.03

OMAHA PUBLIC POWER DISTRICT

ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED
ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT DECEMBER 31, 2006

DEPRECIABLE GROUP	SURVIVOR CURVE		NET SALVAGE	ORIGINAL COST AT DECEMBER 31, 2006	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
STEAM PRODUCTION PLANT									
311.00 STRUCTURES AND IMPROVEMENTS									
Nebraska City Plant	100-R2	*	(23)	100,699,247.66	56,711,010	67,149,065	1,893,752	1.88	35.5
North Omaha #1	100-R2	*	(32)	3,932,828.65	4,182,872	1,008,462	59,337	1.51	17.0
North Omaha #2	100-R2	*	(32)	1,943,176.20	1,874,804	690,189	34,583	1.78	20.0
North Omaha #3	100-R2	*	(32)	2,842,068.72	3,054,664	696,866	32,069	1.13	21.7
North Omaha #4	100-R2	*	(32)	2,447,385.24	1,994,506	1,236,042	48,901	2.00	25.3
North Omaha #5	100-R2	*	(32)	4,668,972.03	4,072,799	2,090,245	79,387	1.70	26.3
North Omaha Emission	100-R2	*	(32)	5,294,454.40	4,826,225	2,162,455	82,328	1.55	26.3
North Omaha Common	100-R2	*	(32)	16,327,643.14	5,056,559	16,495,931	616,810	3.78	26.7
Total Account 311				138,155,776.04	81,773,439	91,529,255	2,847,167	2.06	32.1
312.00 BOILER PLANT EQUIPMENT									
Nebraska City Plant	62-S0.5	*	(23)	218,561,554.36	120,899,541	147,931,173	4,796,965	2.19	30.8
North Omaha #1	62-S0.5	*	(32)	13,055,717.92	10,678,871	6,554,678	384,943	2.95	17.0
North Omaha #2	62-S0.5	*	(32)	13,124,555.22	8,471,593	8,852,821	463,451	3.53	19.1
North Omaha #3	62-S0.5	*	(32)	14,583,033.57	8,607,975	10,641,631	516,525	3.54	20.6
North Omaha #4	62-S0.5	*	(32)	19,927,081.02	14,497,618	11,806,127	495,309	2.49	23.8
North Omaha #5	62-S0.5	*	(32)	47,787,773.75	33,093,996	29,985,867	1,208,035	2.53	24.8
North Omaha Emission	62-S0.5	*	(32)	24,743,238.28	23,198,669	9,462,406	410,834	1.66	23.0
North Omaha Common	62-S0.5	*	(32)	33,183,288.01	13,223,575	30,578,366	1,218,372	3.67	25.1
Total Account 312				384,966,242.13	232,671,838	255,813,069	9,494,434	2.47	26.9
312.10 BOILER PLANT EQUIPMENT - FUEL EQUIPMENT	35-R1.5		25	74,823,884.08	24,420,014	31,697,898	1,154,078	1.54	27.5
314.00 TURBO-GENERATOR UNITS									
Nebraska City Plant	65-R2	*	(23)	85,138,313.78	34,933,174	69,786,952	2,116,739	2.49	33.0
North Omaha #1	65-R2	*	(32)	6,006,392.49	7,418,457	509,981	30,058	0.50	17.0
North Omaha #2	65-R2	*	(32)	4,964,429.83	5,473,729	1,079,317	57,302	1.15	18.8
North Omaha #3	65-R2	*	(32)	6,495,128.36	7,317,526	1,256,043	63,541	0.98	19.8
North Omaha #4	65-R2	*	(32)	6,726,911.57	6,708,009	2,171,514	95,790	1.42	22.7
North Omaha #5	65-R2	*	(32)	11,897,279.25	10,638,888	5,065,519	210,407	1.77	24.1
North Omaha Common	65-R2	*	(32)	1,344,160.48	797,938	976,355	38,059	2.83	25.7
Total Account 314				122,572,615.76	73,287,721	80,845,681	2,611,896	2.13	31.0
315.00 ACCESSORY ELECTRIC EQUIPMENT									
Nebraska City Plant	50-R3	*	(23)	53,324,118.54	25,214,282	40,374,383	1,397,944	2.62	28.9
North Omaha #1	50-R3	*	(32)	7,586,634.19	2,129,568	7,884,791	466,814	6.15	16.9
North Omaha #2	50-R3	*	(32)	7,759,277.30	1,292,035	8,950,211	450,994	5.81	19.8
North Omaha #3	50-R3	*	(32)	7,438,919.41	1,519,411	8,299,963	385,971	5.19	21.5
North Omaha #4	50-R3	*	(32)	6,899,433.43	1,198,023	7,909,229	316,526	4.59	25.0
North Omaha #5	50-R3	*	(32)	7,143,301.79	3,026,599	6,402,560	261,876	3.67	24.4
North Omaha Emission	50-R3	*	(32)	4,647,090.81	4,455,027	1,679,133	83,332	1.79	20.1
North Omaha Common	50-R3	*	(32)	4,805,203.60	1,782,058	4,560,813	178,004	3.70	25.6
Total Account 315				99,603,979.07	40,617,003	86,061,083	3,541,461	3.56	24.3

OMAHA PUBLIC POWER DISTRICT

ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT DECEMBER 31, 2006

DEPRECIABLE GROUP	SURVIVOR CURVE		NET SALVAGE	ORIGINAL COST AT DECEMBER 31, 2006	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
316.00 MISCELLANEOUS POWER PLANT EQUIPMENT									
Nebraska City Plant	48-S0.5	*	(23)	3,523,431.62	1,853,543	2,480,277	88,932	2.52	27.9
North Omaha #1	48-S0.5	*	(32)	32,438.38	30,984	11,835	917	2.83	12.9
North Omaha #2	48-S0.5	*	(32)	25,734.83	19,038	14,932	1,103	4.29	13.5
North Omaha #3	48-S0.5	*	(32)	32,241.08	36,846	5,712	392	1.22	14.6
North Omaha #4	48-S0.5	*	(32)	42,891.01	(2,309)	58,925	3,536	8.24	16.7
North Omaha #5	48-S0.5	*	(32)	99,928.68	(15,865)	147,771	7,909	7.91	18.7
North Omaha Emission	48-S0.5	*	(32)	222,026.92	211,111	81,965	4,107	1.85	20.0
North Omaha Common	48-S0.5	*	(32)	1,475,569.60	535,107	1,412,646	58,950	4.00	24.0
Total Account 316				5,454,262.12	2,668,455	4,214,063	165,846	3.04	25.4
TOTAL STEAM PRODUCTION PLANT				825,576,759.20	455,438,470	550,161,049	19,814,882	2.40	27.8
GAS TURBINE PLANT									
341.00 STRUCTURES AND IMPROVEMENTS									
Jones Street Units 1 & 2	60-S0	*	(5)	728,305.58	273,686	491,034	43,701	6.00	11.2
Cass County Unit 1	60-S0	*	(5)	824,102.41	169,236	696,072	20,853	2.53	33.4
Cass County Unit 2	60-S0	*	(5)	824,102.41	54,185	811,123	24,300	2.95	33.4
Cass County Common Plant	60-S0	*	(5)	25,088,363.76	1,635,691	24,707,091	740,056	2.95	33.4
Sarpy County Units 1 & 2	60-S0	*	(5)	318,197.51	153,401	180,708	16,223	5.10	11.1
Sarpy County Unit 3	60-S0	*	(5)	2,027,019.40	558,530	1,569,840	59,881	2.95	26.2
Sarpy County Units 4 & 5	60-S0	*	(5)	2,778,858.03	490,440	2,427,361	81,674	2.94	29.7
Elk City Landfill	60-S0	*	(5)	1,902,293.29	425,088	1,572,320	49,873	2.62	31.5
Total Account 341				34,491,242.39	3,760,257	32,455,549	1,036,561	3.01	31.3
342.00 FUEL HOLDERS, PRODUCERS AND ACCESSORIES									
Jones Street Units 1 & 2	SQUARE	*	0	965,629.61	867,571	98,059	8,527	0.88	11.5
Cass County Unit 1	SQUARE	*	0	468,380.92	256,605	211,776	5,647	1.21	37.5
Cass County Unit 2	SQUARE	*	0	468,380.92	29,274	439,107	11,710	2.50	37.5
Cass County Common Plant	SQUARE	*	0	3,787,924.60	142,235	3,645,690	97,219	2.57	37.5
Sarpy County Units 1 & 2	SQUARE	*	0	869,408.76	757,654	111,756	9,718	1.12	11.5
Sarpy County Unit 3	SQUARE	*	0	920,737.84	246,162	674,576	22,867	2.48	29.5
Sarpy County Units 4 & 5	SQUARE	*	0	1,588,236.79	585,068	1,003,169	29,945	1.89	33.5
Elk City Landfill	SQUARE	*	0	304,365.15	189,378	114,987	3,239	1.06	35.5
Total Account 342				9,373,064.59	3,073,947	6,299,120	188,872	2.02	33.4
343.00 PRIME MOVERS									
Jones Street Units 1 & 2	60-R2.5	*	0	6,674,463.27	4,431,649	2,242,814	197,194	2.95	11.4
Cass County Unit 1	60-R2.5	*	0	31,940,271.87	3,088,043	28,852,229	811,596	2.54	35.5
Cass County Unit 2	60-R2.5	*	0	31,940,270.79	1,996,267	29,944,004	842,307	2.64	35.5
Sarpy County Units 1 & 2	60-R2.5	*	0	10,612,663.06	4,974,970	5,637,692	499,071	4.70	11.3
Sarpy County Unit 3	60-R2.5	*	0	35,722,198.45	9,454,701	26,267,498	941,114	2.63	27.9
Sarpy County Units 4 & 5	60-R2.5	*	0	31,077,915.69	5,001,910	26,076,006	821,930	2.64	31.7
Elk City Landfill	60-R2.5	*	0	1,869,672.34	415,158	1,454,515	43,242	2.31	33.6
Photovoltaic System	60-R2.5	*	0	79,605.06	9,951	69,654	4,038	5.07	17.2
Total Account 343				149,917,060.53	29,372,649	120,544,412	4,160,492	2.78	29.0
343.10 PRIME MOVERS - FUEL CELLS	10-SQUARE		0	1,622,532.27	1,004,664	617,869	123,833	7.63	5.0

OMAHA PUBLIC POWER DISTRICT

ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED
ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT DECEMBER 31, 2006

DEPRECIABLE GROUP	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST AT DECEMBER 31, 2006	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
344.00 GENERATORS								
Jones Street Units 1 & 2	65-R2.5 *	(5)	3,058,645.69	2,359,717	851,862	75,484	2.47	11.3
Cass County Unit 1	65-R2.5 *	(5)	12,948,911.04	1,967,692	11,628,665	324,370	2.50	35.9
Cass County Unit 2	65-R2.5 *	(5)	12,957,346.55	851,946	12,753,268	355,740	2.75	35.8
Sarpy County Units 1 & 2	65-R2.5 *	(5)	3,060,973.00	2,380,679	833,343	73,789	2.41	11.3
Sarpy County Unit 3	65-R2.5 *	(5)	2,985,582.22	831,932	2,302,929	81,751	2.74	28.2
Sarpy County Units 4 & 5	65-R2.5 *	(5)	5,514,967.51	935,033	4,855,683	151,723	2.75	32.0
Total Account 344			40,526,426.01	9,326,999	33,225,750	1,062,857	2.62	31.3
345.00 ACCESSORY ELECTRIC EQUIPMENT								
Jones Street Units 1 & 2	55-S1.5 *	0	1,007,580.55	814,896	192,684	17,374	1.72	11.1
Cass County Unit 1	55-S1.5 *	0	5,022,875.10	1,568,069	3,454,806	98,624	1.96	35.0
Cass County Unit 2	55-S1.5 *	0	5,022,875.10	313,930	4,708,945	134,426	2.68	35.0
Cass County Common Plant	55-S1.5 *	0	200,283.05	9,209	191,074	5,431	2.71	35.2
Sarpy County Units 1 & 2	55-S1.5 *	0	1,103,653.51	712,648	391,005	35,027	3.17	11.2
Sarpy County Unit 3	55-S1.5 *	0	1,732,519.39	459,196	1,273,323	46,840	2.70	27.2
Sarpy County Units 4 & 5	55-S1.5 *	0	2,889,034.76	465,975	2,423,060	77,966	2.70	31.1
Elk City Landfill	55-S1.5 *	0	550,198.58	123,795	426,404	12,906	2.35	33.0
Total Account 345			17,529,020.04	4,467,718	13,061,301	428,594	2.45	30.5
346.00 MISCELLANEOUS POWER PLANT EQUIPMENT								
Jones Street Units 1 & 2	SQUARE *	0	141,295.58	71,354	69,942	6,081	4.30	11.5
Cass County Unit 1	SQUARE *	0	1,261,069.32	121,718	1,139,351	30,383	2.41	37.5
Cass County Unit 2	SQUARE *	0	1,261,069.32	78,817	1,182,252	31,527	2.50	37.5
Sarpy County Units 1 & 2	SQUARE *	0	103,455.66	70,048	33,408	2,905	2.81	11.5
Sarpy County Unit 3	SQUARE *	0	431,314.03	113,920	317,395	10,759	2.49	29.5
Sarpy County Units 4 & 5	SQUARE *	0	403,075.64	65,399	337,677	10,080	2.50	33.5
Total Account 346			3,601,279.55	521,256	3,080,025	91,735	2.55	33.6
TOTAL GAS TURBINE PLANT			257,060,625.38	51,527,490	209,284,026	7,092,944	2.76	29.5
TRANSMISSION PLANT								
352.00 STRUCTURES AND IMPROVEMENTS	60-R2.5	(15)	10,188,523.17	3,242,562	8,474,238	174,130	1.71	48.7
353.00 STATION EQUIPMENT	43-R1.5	(5)	121,953,726.12	25,836,559	102,214,856	3,193,405	2.62	32.0
354.00 STEEL TOWERS AND FIXTURES	70-R2	(25)	7,764,840.56	4,351,371	5,354,677	120,020	1.55	44.6
355.00 WOOD AND STEEL POLES	45-R2	(30)	60,025,305.38	29,719,238	48,313,663	1,504,204	2.51	32.1
355.01 WOOD AND STEEL POLES - MINT LINE	50-SQUARE	0	1,765,424.56	510,698	1,254,727	35,177	1.99	35.7
Total Account 355			61,790,729.94	30,229,936	49,568,390	1,539,381	2.49	32.2
356.00 OVERHEAD CONDUCTORS AND DEVICES	48-R1.5	(20)	48,628,856.38	25,017,078	33,337,550	975,969	2.01	34.2
356.01 OVERHEAD CONDUCTORS AND DEVICES - MINT LINE	50-SQUARE	0	1,745,045.03	510,495	1,234,550	34,769	1.99	35.5
Total Account 356			50,373,901.41	25,527,573	34,572,100	1,010,738	2.01	34.2
357.00 UNDERGROUND MANHOLES AND CONDUIT	65-R3	0	990,297.75	261,228	729,070	15,132	1.53	48.2
358.00 UNDERGROUND CONDUCTORS AND DEVICES	30-R3	0	4,193,011.15	1,688,373	2,504,638	146,281	3.49	17.1
TOTAL TRANSMISSION PLANT			257,255,030.10	91,137,602	203,417,969	6,199,087	2.41	32.8

OMAHA PUBLIC POWER DISTRICT

ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT DECEMBER 31, 2006

	DEPRECIABLE GROUP	SURVIVOR CURVE	NET SALVAGE	ORIGINAL COST AT DECEMBER 31, 2006	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	DISTRIBUTION PLANT								
	STRUCTURES AND IMPROVEMENTS								
361.10	Service Centers	50-R2	(5)	64,761,513.81	15,077,822	52,921,768	1,442,969	2.23	36.7
361.20	Other Structures	45-R1.5	(5)	13,584,298.23	3,026,821	11,236,690	351,333	2.59	32.0
	Total Account 361			78,345,812.04	18,104,643	64,158,458	1,794,302	2.29	35.8
362.00	STATION EQUIPMENT	50-R0.5	(10)	152,698,687.99	43,048,907	124,919,650	2,898,230	1.90	43.1
364.00	POLES, TOWERS AND FIXTURES	32-R1.5	(15)	91,405,431.81	41,569,257	63,546,990	2,697,474	2.95	23.6
365.00	OVERHEAD CONDUCTORS AND DEVICES	34-R1.5	(15)	61,254,213.63	23,260,254	47,182,092	2,036,781	3.33	23.2
366.00	UNDERGROUND MANHOLES	60-R3	(20)	59,502,488.99	14,224,814	57,178,174	1,218,984	2.05	46.9
367.00	UNDERGROUND CONDUCTORS AND DEVICES	32-R2	(10)	215,620,115.64	61,808,936	175,373,189	7,909,821	3.67	22.2
368.00	LINE TRANSFORMERS	33-R2.5	(15)	150,738,807.86	63,006,378	110,343,250	5,104,301	3.39	21.6
369.00	SERVICES	45-R3	(35)	55,685,425.86	23,105,844	52,069,479	1,597,691	2.87	32.6
370.00	METERS	28-R4	(5)	42,154,557.26	18,110,441	26,151,847	1,607,734	3.81	16.3
371.00	INSTALLATIONS ON CUSTOMER PREMISES	16-R1	(15)	2,550,728.28	817,237	2,116,098	257,892	10.11	8.2
373.00	STREET LIGHTING AND SIGNAL SYSTEM	29-R1.5	(15)	77,201,348.06	25,908,597	62,872,955	3,001,442	3.89	20.9
	TOTAL DISTRIBUTION PLANT			987,157,617.42	332,965,308	785,912,182	30,124,652	3.05	26.1
	GENERAL PLANT								
390.00	STRUCTURES AND IMPROVEMENTS								
	Energy Plaza	SQUARE *	0	47,508,533.87	14,501,867	33,006,667	795,342	1.67	41.5
	Other Locations	33-S1	(5)	2,296,972.07	878,226	1,533,595	65,926	2.87	23.3
	Total Account 390			49,805,505.94	15,380,093	34,540,262	861,268	1.73	40.1
391.02	COMPUTER EQUIPMENT	6-R4	0	31,172,029.94	28,716,420	2,455,608	458,610	1.47	5.4
392.00	TRANSPORTATION EQUIPMENT	13-R2	15	37,427,759.06	10,607,021	21,206,577	2,643,718	7.06	8.0
396.00	POWER OPERATED EQUIPMENT	18-L0.5	35	12,025,478.64	2,354,344	5,462,219	415,716	3.46	13.1
397.00	COMMUNICATION EQUIPMENT	20-R1.5	0	67,247,262.97	38,851,892	28,395,372	1,979,850	2.94	14.3
	TOTAL GENERAL PLANT			197,678,036.55	95,909,770	92,060,038	6,359,162	3.22	14.5
	TOTAL DEPRECIABLE PLANT			2,524,728,068.65	1,026,978,640	1,840,835,264	69,590,727		
	NONDEPRECIABLE PLANT								
	STEAM PRODUCTION			2,911,190.77					
	OTHER PRODUCTION			935,291.56					
	TRANSMISSION			12,405,318.26					
	DISTRIBUTION			6,704,875.64					
	GENERAL PLANT			2,109,040.47					
	TOTAL NONDEPRECIABLE PLANT			**25,065,716.70**					
	TOTAL PLANT			2,549,793,785.35	1,026,978,640	1,840,835,264	69,590,727		

*Interim survivor curves used. Each location has a unique probable retirement date.

WISCONSIN PUBLIC SERVICE CORPORATION

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES BY COMPONENT AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	CAPITAL RECOVERY RATE	COST OF REMOVAL PERCENT	COST OF REMOVAL RATE	GROSS SALVAGE PERCENT	GROSS SALVAGE RATE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)	(10)	(11)	(12)	(13)
	ELECTRIC PLANT												
	INTANGIBLE PLANT												
302.10	FRANCHISES AND CONSENTS - HYDRO RELICENSING	30-SQ	0	646,040.04	247,857	398,183	21,513 *	3.33	3.33	0	0.00	0	0.00
302.20	FRANCHISES AND CONSENTS - WIND FARM STUDIES	30-SQ	0	111,333.43	22,723	88,610	3,707 *	3.33	3.33	0	0.00	0	0.00
	TOTAL INTANGIBLE PLANT			**757,373.47**	**270,580**	**486,793**	**25,220**	**3.33**					
	STEAM PRODUCTION PLANT												
310.20	LAND AND LAND RIGHTS - FLYASH SITE (LEGNER)	50-SQ	0	128,534.83	44,987	83,548	2,571 *	2.00	2.00	0	0.00	0	0.00
	PULLIAM												
311.00	STRUCTURES AND IMPROVEMENTS	90-S0 **	(69)	21,675,216.82	17,910,302	18,720,816	951,874	4.39	2.60	(69)	1.79	0	0.00
312.00	BOILER PLANT EQUIPMENT	60-R1 **	(19)	96,630,651.96	52,449,807	62,540,667	3,370,423	3.49	2.93	(24)	0.70	5	(0.15)
312.30	BOILER PLANT EQUIPMET - COMPUTER EQUIPMENT	18-S2 **	0	314,403.95	179,620	134,784	14,313	4.55	4.55	0	0.00	0	0.00
314.00	TURBOGENERATOR UNITS	65-R2.5 **	(2)	17,419,153.57	15,702,419	2,065,118	108,279	0.62	0.61	(7)	0.04	5	(0.03)
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5 **	(11)	17,589,216.69	10,740,065	8,783,970	446,691	2.54	2.29	(13)	0.30	2	(0.05)
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-R1	(4)	6,393,378.18	2,873,343	3,775,774	202,844	3.17	3.05	(5)	0.15	1	(0.03)
	TOTAL PULLIAM			**160,022,021.17**	**99,855,556**	**96,021,129**	**5,094,424**	**3.18**					
	WESTON												
311.00	STRUCTURES AND IMPROVEMENTS	90-S0 **	(47)	104,335,495.55	38,810,132	114,563,046	3,423,935	3.28	2.23	(47)	1.05	0	0.00
312.00	BOILER PLANT EQUIPMENT	60-R1 **	(5)	523,193,714.27	112,862,146	436,491,258	13,565,563	2.59	2.47	(6)	0.15	1	(0.02)
312.10	BOILER PLANT EQUIPMENT - NOX EQUIPMENT	10-SQ	0	33,088,538.31	2,225,715	30,862,823	3,086,282	9.33	9.33	0	0.00	0	0.00
312.30	BOILER PLANT EQUIPMET - COMPUTER EQUIPMENT	18-S2 **	0	2,118,629.90	685,182	1,433,448	130,904	6.18	6.18	0	0.00	0	0.00
314.00	TURBOGENERATOR UNITS	65-R2.5 **	(3)	93,396,260.52	33,309,716	62,888,432	1,822,602	1.95	1.89	(6)	0.11	3	(0.06)
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5 **	(3)	70,273,020.27	21,411,069	50,970,144	1,523,502	2.17	2.11	(4)	0.08	1	(0.02)
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-R1 **	(8)	8,889,541.35	4,482,334	5,118,373	219,823	2.47	2.29	(10)	0.23	2	(0.05)
	TOTAL WESTON			**835,295,200.17**	**213,786,294**	**702,327,524**	**23,772,611**	**2.85**					
311.20	STRUCTURES AND IMPROVEMENTS - FLYASH SITE (CWA)	50-S2.5 **	0	1,966,178.83	1,966,179	0	0	- ***	0.00	0	0.00	0	0.00
312.40	BOILER PLANT EQUIPMENT - UNIT TRAIN	25-R3	30	37,024,082.57	16,917,671	8,999,187	551,063	1.49	2.13	0	0.00	30	(0.64)
	TOTAL STEAM PRODUCTION PLANT			**1,034,436,017.57**	**332,570,687**	**807,431,388**	**29,420,669**	**2.84**					
	HYDRAULIC PRODUCTION PLANT												
331.00	STRUCTURES AND IMPROVEMENTS	65-S0 **	(410)	4,293,051.13	10,210,961	11,673,643	778,399	18.13	3.55	(410)	14.58	0	0.00
332.00	RESERVOIRS, DAMS AND WATERWAY	70-R2.5 **	(25)	18,216,490.59	12,115,853	10,615,642	519,116	2.85	2.28	(27)	0.62	2	(0.05)
333.00	WATER WHEELS, TURBINES AND GENERATORS	45-R1.5 **	(26)	8,189,200.58	5,152,047	5,159,233	509,178	6.22	4.94	(29)	1.43	3	(0.15)
334.00	ACCESSORY ELECTRIC EQUIPMENT	55-R0.5 **	(8)	7,618,054.11	2,936,850	5,283,685	268,244	3.52	3.26	(10)	0.33	2	(0.07)
335.00	MISCELLANEOUS POWER PLANT EQUIPMENT	55-R2 **	(9)	255,710.76	203,017	75,423	5,181	2.03	1.86	(10)	0.19	1	(0.02)
336.00	ROADS, RAILROADS, AND BRIDGES	60-R2 **	(13)	25,397.53	23,791	4,897	500	1.97	1.74	(13)	0.23	0	0.00
	TOTAL HYDRAULIC PRODUCTION PLANT			**38,597,904.70**	**30,642,519**	**32,812,523**	**2,080,618**	**5.39**					
	OTHER PRODUCTION												
	WIND PRODUCTION												
	LINCOLN												
341.00	STRUCTURES AND IMPROVEMENTS	45-S3 **	(48)	51,816.51	14,723	61,965	3,155	6.09	4.11	(48)	1.98	0	0.00
344.00	GENERATORS	40-R3 **	(8)	10,128,230.13	3,100,850	7,837,639	414,650	4.09	3.79	(10)	0.38	2	(0.08)
345.00	ACCESSORY ELECTRIC EQUIPMENT	40-S0.5 **	0	210,376.19	62,566	147,810	8,360	3.97	3.97	0	0.00	0	0.00
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT	40-R2.5 **	0	39,259.62	10,803	28,457	1,528	3.89	3.89	0	0.00	0	0.00
	TOTAL LINCOLN			**10,429,682.45**	**3,188,942**	**8,075,871**	**427,693**	**4.10**					
	GLENMORE												
341.00	STRUCTURES AND IMPROVEMENTS	45-S3 **	(7)	69,922.68	71,524	3,293	412	0.59	0.55	(7)	0.04	0	0.00
344.00	GENERATORS	40-R3 **	(9)	1,833,791.96	1,535,901	462,932	58,300	3.18	2.92	(11)	0.32	2	(0.06)
345.00	ACCESSORY ELECTRIC EQUIPMENT	40-S0.5 **	0	13,376.70	11,622	1,755	222	1.66	1.66	0	0.00	0	0.00
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT	40-R2.5 **	0	59,258.63	56,290	2,969	374	0.63	0.63	0	0.00	0	0.00
	TOTAL GLENMORE			**1,976,349.97**	**1,675,337**	**470,949**	**59,308**	**3.00**					
	TOTAL WIND PRODUCTION			**12,406,032.42**	**4,864,279**	**8,546,820**	**487,001**	**3.93**					

WISCONSIN PUBLIC SERVICE CORPORATION

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES BY COMPONENT AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	CAPITAL RECOVERY RATE	COST OF REMOVAL PERCENT	COST OF REMOVAL RATE	GROSS SALVAGE PERCENT	GROSS SALVAGE RATE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)	(10)	(11)	(12)	(13)
	GAS TURBINE PRODUCTION												
341.00	STRUCTURES AND IMPROVEMENTS	45-S3 **	(4)	23,909,148.46	8,675,845	16,273,989	669,740	2.80	2.69	(4)	0.11	0	0.00
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	55-R3 **	(11)	4,943,767.01	2,325,485	3,137,748	128,427	2.60	2.34	(11)	0.26	0	0.00
344.00	GENERATORS	40-R3 **	(1)	108,459,925.24	39,855,501	70,141,700	2,932,102	2.70	2.67	(2)	0.05	1	(0.03)
345.00	ACCESSORY ELECTRIC EQUIPMENT	40-S0.5 **	(5)	12,305,242.02	3,664,672	9,254,007	459,837	3.74	3.56	(6)	0.21	1	(0.04)
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT	40-R2.5 **	0	402,553.79	146,783	255,773	16,771	4.17	4.17	0	0.00	0	0.00
	TOTAL GAS TURBINE PRODUCTION			150,020,636.52	54,668,286	99,063,217	4,206,877	2.80					
	TOTAL OTHER PRODUCTION			162,426,668.94	59,532,565	107,610,037	4,693,878	2.89					
	TOTAL PRODUCTION			1,235,460,591.21	422,745,771	947,853,948	36,195,165	2.93					
	DISTRIBUTION PLANT												
360.20	LAND RIGHTS	70-R3	0	358,594.39	226,070	132,523	2,775	0.77	0.77	0	0.00	0	0.00
361.00	STRUCTURES AND IMPROVEMENTS	45-R3	0	3,016.45	3,667	(650)	0	-	0.00	0	0.00	0	0.00
362.00	STATION EQUIPMENT	48-R2	(5)	103,664,521.73	42,001,441	66,846,302	1,711,128	1.65	1.57	(7)	0.11	2	(0.03)
364.00	POLES, TOWERS AND FIXTURES	50-R1.5	(20)	115,771,937.07	64,208,162	74,718,162	1,726,378	1.49	1.24	(24)	0.30	4	(0.05)
365.00	OVERHEAD CONDUCTORS AND DEVICES	38-O1	(25)	105,343,381.09	43,483,882	88,195,344	2,903,683	2.76	2.21	(32)	0.71	7	(0.15)
366.00	UNDERGROUND CONDUIT	55-R2	0	6,028,548.06	2,446,374	3,582,171	86,509	1.43	1.43	0	0.00	0	0.00
367.00	UNDERGROUND CONDUCTORS AND DEVICES	45-R2	(5)	105,479,904.67	33,413,184	77,340,717	2,193,242	2.08	1.98	(6)	0.12	1	(0.02)
368.00	LINE TRANSFORMERS	35-R1.5	4	218,242,668.65	118,543,944	90,969,017	3,069,713	1.41	1.47	(1)	0.01	5	(0.07)
369.10	SERVICES - OVERHEAD	50-R1.5	(25)	15,264,828.96	12,371,779	6,709,258	153,430	1.01	0.81	(25)	0.20	0	0.00
369.20	SERVICES - UNDERGROUND	55-R2.5	(10)	138,668,109.37	41,609,110	110,925,808	2,454,698	1.77	1.61	(10)	0.16	0	0.00
370.00	METERS	25-R0.5	0	27,660,633.70	1,431,654	26,228,979	1,683,292	6.09	6.09	0	0.00	0	0.00
370.20	METERS - AMR	14-R3	0	46,685,242.40	16,460,007	30,225,236	3,493,553	7.48	7.48	0	0.00	0	0.00
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	26-R1.5	(5)	8,995,977.08	4,636,815	4,808,962	262,308	2.92	2.78	(5)	0.14	0	0.00
373.00	STREET LIGHTING AND SIGNAL SYSTEMS	44-R1	(10)	12,295,350.73	7,195,042	6,329,844	166,295	1.35	1.23	(12)	0.15	2	(0.02)
	TOTAL DISTRIBUTION PLANT			904,462,714.35	388,031,131	587,011,673	19,907,004	2.20					
	GENERAL PLANT												
390.00	STRUCTURES AND IMPROVEMENTS	50-R1.5 **	(5)	3,101,974.64	1,414,551	1,842,523	88,236	2.84	2.70	(5)	0.14	0	0.00
391.20	MAINFRAME COMPUTER AND PERIPHERAL EQUIPMENT	5-SQ	0	1,703,710.42	1,395,724	307,987	205,325	12.05	12.05	0	0.00	0	0.00
397.30	COMMUNICATION EQUIPMENT - DISPATCH AND CONTROL EQUIPMENT	10-SQ	0	8,511,742.69	6,734,730	1,777,012	249,931	2.94	2.94	0	0.00	0	0.00
	TOTAL GENERAL PLANT			13,317,427.75	9,545,005	3,927,522	543,492	4.08					
	TOTAL DEPRECIABLE ELECTRIC PLANT			2,153,998,106.78	820,592,487	1,539,279,936	56,670,881	2.63					
GAS PLANT													
	TRANSMISSION PLANT												
367.10	MAINS	58-R2.5	(10)	4,483,103.24	26,987	4,904,427	85,250	1.90	1.73	(12)	0.21	2	(0.03)
369.30	MEASURING AND REGULATING STATION EQUIPMENT	40-R2.5	(10)	6,085,107.46	52,937	6,640,681	167,991	2.76	2.51	(13)	0.33	3	(0.08)
	TOTAL TRANSMISSION PLANT			10,568,210.70	79,924	11,545,108	253,241	2.40					
	DISTRIBUTION PLANT												
375.00	STRUCTURES AND IMPROVEMENTS	50-R4	(15)	202,403.71	198,676	34,085	1,093	0.54	0.47	(15)	0.07	0	0.00
376.00	MAINS	58-R2.5	(10)	267,118,693.03	97,250,003	196,580,562	4,049,709	1.52	1.38	(12)	0.17	2	(0.03)
378.00	MEASURING AND REGULATING STATION EQUIPMENT	40-R2.5	(10)	11,700,345.00	5,050,781	7,819,598	237,005	2.03	1.85	(13)	0.24	3	(0.06)
379.00	MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE	45-R2	(5)	13,466,026.17	3,088,468	11,050,861	272,357	2.02	1.92	(6)	0.12	1	(0.02)
380.00	SERVICES	48-R3	(25)	138,032,782.10	83,869,996	88,670,982	2,270,963	1.65	1.32	(25)	0.33	0	0.00
381.00	METERS	38-R3	5	46,877,611.73	22,639,134	21,894,597	760,937	1.62	1.71	(1)	0.02	6	(0.10)
381.20	METERS - AMR	15-S1	0	43,173,503.68	12,681,545	30,491,960	2,981,764	6.91	6.91	0	0.00	0	0.00
	TOTAL METERS			90,051,115.41	35,320,679	52,386,557	3,742,701	4.16					
383.00	HOUSE REGULATORS	40-R5	0	10,322,348.15	4,840,124	5,482,224	178,732	1.73	1.73	0	0.00	0	0.00
385.00	INDUSTRIAL MEASURING AND REGULATING EQUIPMENT	33-R1.5	(5)	4,083,861.73	1,516,869	2,771,186	113,266	2.77	2.64	(6)	0.16	1	(0.03)
	TOTAL DISTRIBUTION PLANT			534,977,575.30	231,135,596	364,796,055	10,865,826	2.03					
	GENERAL PLANT												
390.00	STRUCTURES AND IMPROVEMENTS - SHEBOYGAN	50-R1.5 **	(10)	1,825,210.82	632,369	1,375,364	96,515	5.29	4.81	(10)	0.48	0	0.00
397.30	COMMUNICATION EQUIPMENT - DISPATCH AND CONTROL EQUIPMENT	10-SQ	0	4,752,980.69	2,289,670	2,463,311	461,656	9.71	9.71	0	0.00	0	0.00
	TOTAL GENERAL PLANT			6,578,191.51	2,922,039	3,838,675	558,171	8.49					
	TOTAL DEPRECIABLE GAS PLANT			552,123,977.51	234,137,559	380,179,838	11,677,238	2.11					

WISCONSIN PUBLIC SERVICE CORPORATION

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES BY COMPONENT AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	CAPITAL RECOVERY RATE	COST OF REMOVAL PERCENT	COST OF REMOVAL RATE	GROSS SALVAGE PERCENT	GROSS SALVAGE RATE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)	(10)	(11)	(12)	(13)
COMMON PLANT													
	DEPRECIABLE PLANT												
390.00	STRUCTURES AND IMPROVEMENTS	50-R1.5 **	(10)	74,063,941.41	22,393,622	59,076,718	2,449,026	3.31	3.01	(10)	0.30	0	0.00
	TRANSPORTATION EQUIPMENT												
392.10	VEHICLES	14-L3	10	32,318,961.98	19,962,014	9,125,051	885,768	2.74	3.05	0	0.00	10	(0.30)
392.20	TRAILERS - PLAIN	22-S2.5	10	2,558,713.24	1,482,245	820,592	50,980	1.99	2.21	0	0.00	10	(0.22)
392.30	TRAILERS - POWER OPERATED	22-L4	15	616,656.81	215,382	308,777	24,393	3.96	4.65	0	0.00	15	(0.70)
392.40	TRAILERS - AIR COMPRESSORS	27-S2.5	10	106,622.34	95,960	0	0	-	0.00	0	0.00	10	0.00
392.50	POWER OPERATED EQUIPMENT - LICENSED	14-L3	5	15,381,490.38	9,457,624	5,154,791	499,005	3.24	3.41	0	0.00	5	(0.17)
392.60	POWER OPERATED EQUIPMENT - ON TRAILERS	30-R4	10	133,739.60	100,984	19,382	1,162	0.87	0.97	0	0.00	10	(0.10)
392.90	AIRPLANE				526,654	(526,654)	(105,331)	****					
	TOTAL TRANSPORTATION EQUIPMENT			51,116,184.35	31,840,863	14,901,939	1,355,977						
396.00	POWER OPERATED EQUIPMENT - OTHER	17-L2.5	15	5,800,425.60	2,872,904	2,057,457	188,928	3.26	3.83	0	0.00	15	(0.57)
397.30	COMMUNICATION EQUIPMENT - DISPATCH AND CONTROL EQUIPMENT	10-SQ	0	331,226.42	166,093	165,133	40,895	12	12.35	0	0.00	0	0.00
	TOTAL DEPRECIABLE COMMON PLANT			**131,311,777.78**	**57,273,482**	**76,201,247**	**4,034,826**	**3.07**					
	NONDEPRECIABLE ELECTRIC PLANT												
310.00	LAND			128,534.83									
340.10	LAND			3,288,687.25									
360.00	EASEMENTS			411,145.24									
	TOTAL NONDEPRECIABLE ELECTRIC PLANT			**3,828,367.32**									
	NONDEPRECIABLE GAS PLANT												
365.10	LAND			708,217.87									
	TOTAL NONDEPRECIABLE GAS PLANT			**708,217.87**									
TOTAL UTILITY PLANT				**2,841,970,447.26**	**1,112,003,528**	**1,995,661,021**	**72,382,945**						

* Annual accrual amount based on established recovery period by vintage.
** Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.
*** New additions in Account 311.20 at Central Wisconsin Airport Flyash Site will have an accrual rate of 21.64%.
**** Overrecovered reserve to be amortized over 5 years.

Note: New additions in Account 312.10 at Pulliam will have an accrual rate of 10.00%.
New additions for Crane Creek Wind Farm will have accrual rates as follows:

Account	Rate					
340.10	3.33%	3.33	0	0.00	0	0.00
341.00	6.63%	3.38	(96)	3.25	0	0.00
344.00	3.60%	3.50	(5)	0.17	2	(0.07)
345.00	3.76%	3.73	(2)	0.07	1	(0.04)
346.00	3.82%	3.57	(7)	0.25	0	0.00

BLACK HILLS COLORADO ELECTRIC UTILITY COMPANY, LP

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF JUNE 30, 2010

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	STEAM PRODUCTION PLANT									
	CANON CITY PLANT									
	CANON CITY UNIT 1									
311.00	STRUCTURES AND IMPROVEMENTS	80-S0.5	*	(12)	71,467.42	65,743	14,301	4,109	5.75	3.5
312.10	BOILER PLANT EQUIPMENT	45-S0.5	*	(12)	4,718,294.47	1,766,853	3,517,639	1,010,868	21.42	3.5
312.20	BOILER PLANT EQUIPMENT - POLLUTION CONTROL EQUIPMENT	45-S0.5	*	(12)	1,417,108.84	1,491,324	95,838	28,227	1.99	3.4
314.00	TURBOGENERATOR UNITS	55-R1	*	(12)	670,358.96	406,350	344,453	99,362	14.82	3.5
315.00	ACCESSORY ELECTRIC EQUIPMENT	50-R1	*	(12)	1,260,903.22	552,157	860,055	248,631	19.72	3.5
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	25-S1.5	*	(12)	85,864.26	82,956	13,212	4,004	4.66	3.3
	TOTAL CANON CITY UNIT 1				8,223,997.17	4,365,383	4,845,498	1,395,201	16.96	3.5
	CANON CITY UNIT 2									
311.00	STRUCTURES AND IMPROVEMENTS	80-S0.5	*	(12)	1,611,398.98	1,601,178	203,589	58,659	3.64	3.5
312.10	BOILER PLANT EQUIPMENT	45-S0.5	*	(12)	4,304,882.69	2,226,104	2,595,366	762,849	17.72	3.4
312.20	BOILER PLANT EQUIPMENT - POLLUTION CONTROL EQUIPMENT	45-S0.5	*	(12)	1,579,697.76	1,667,242	102,018	30,094	1.91	3.4
314.00	TURBOGENERATOR UNITS	55-R1	*	(12)	2,545,160.02	2,144,059	706,519	206,966	8.13	3.4
315.00	ACCESSORY ELECTRIC EQUIPMENT	50-R1	*	(12)	650,571.49	400,857	327,782	95,902	14.74	3.4
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	25-S1.5	*	(12)	387,624.84	385,389	48,752	15,158	3.91	3.2
	TOTAL CANON CITY UNIT 2				11,079,335.78	8,424,829	3,984,026	1,169,628	10.56	3.4
	CANON CITY COMMON									
311.00	STRUCTURES AND IMPROVEMENTS	80-S0.5	*	(12)	504,455.50	366,584	198,406	56,863	11.27	3.5
312.10	BOILER PLANT EQUIPMENT	45-S0.5	*	(12)	550,528.16	247,967	368,625	106,102	19.27	3.5
314.00	TURBOGENERATOR UNITS	55-R1	*	(12)	204,828.48	145,803	83,605	24,164	11.80	3.5
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	25-S1.5	*	(12)	1,431.62	1,191	412	120	8.38	3.4
	TOTAL CANON CITY COMMON				1,261,243.76	761,545	651,048	187,249	14.85	3.5
	TOTAL CANON CITY PLANT				**20,564,576.71**	**13,551,757**	**9,480,572**	**2,752,078**	**13.38**	**3.4**
	PUEBLO PLANT									
	PUEBLO PLANT UNIT 5									
311.00	STRUCTURES AND IMPROVEMENTS	80-S0.5	*	(12)	19,999.85	16,422	5,978	1,713	8.57	3.5
312.10	BOILER PLANT EQUIPMENT	45-S0.5	*	(12)	2,441,041.44	1,282,608	1,451,359	419,431	17.18	3.5
312.20	BOILER PLANT EQUIPMENT - POLLUTION CONTROL EQUIPMENT	45-S0.5	*	(12)	141,119.92	121,732	36,322	10,498	7.44	3.5
314.00	TURBOGENERATOR UNITS	55-R1	*	(12)	909,647.55	538,675	480,130	138,608	15.24	3.5
315.00	ACCESSORY ELECTRIC EQUIPMENT	50-R1	*	(12)	35,000.02	20,509	18,691	5,402	15.43	3.5
	TOTAL PUEBLO PLANT UNIT 5				3,546,808.78	1,979,946	1,992,480	575,652	16.23	3.5
	PUEBLO PLANT UNIT 6									
311.00	STRUCTURES AND IMPROVEMENTS	80-S0.5	*	(12)	1,449,821.74	1,493,371	130,431	37,744	2.60	3.5
312.10	BOILER PLANT EQUIPMENT	45-S0.5	*	(12)	3,889,283.43	2,337,080	2,018,916	616,784	15.86	3.3
314.00	TURBOGENERATOR UNITS	55-R1	*	(12)	1,447,026.47	1,268,427	352,242	106,394	7.35	3.3
315.00	ACCESSORY ELECTRIC EQUIPMENT	50-R1	*	(12)	474,978.30	348,745	183,230	55,332	11.65	3.3
	TOTAL PUEBLO PLANT UNIT 6				7,261,109.94	5,447,623	2,684,819	816,254	11.24	3.3
	PUEBLO PLANT COMMON									
311.00	STRUCTURES AND IMPROVEMENTS	80-S0.5	*	(12)	224,976.57	154,337	97,636	27,978	12.44	3.5
312.10	BOILER PLANT EQUIPMENT	45-S0.5	*	(12)	6,088.47	3,445	3,374	978	16.06	3.4
314.00	TURBOGENERATOR UNITS	55-R1	*	(12)	434,934.29	282,545	204,581	59,115	13.59	3.5

BLACK HILLS COLORADO ELECTRIC UTILITY COMPANY, LP

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE
AND CALCULATED ANNUAL DEPRECIATION RATES AS OF JUNE 30, 2010

	ACCOUNT (1)	SURVIVOR CURVE (2)		NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
315.00	ACCESSORY ELECTRIC EQUIPMENT	50-R1	*	(12)	57,989.68	29,425	35,523	10,263	17.70	3.5
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	25-S1.5	*	(12)	255,957.12	261,342	25,330	7,930	3.10	3.2
	TOTAL PUEBLO PLANT COMMON				979,946.13	731,094	366,444	106,264	10.84	3.4
	TOTAL PUEBLO PLANT				**11,787,864.85**	**8,158,663**	**5,043,743**	**1,498,170**	**12.71**	**3.4**
	TOTAL STEAM PRODUCTION				**32,352,441.56**	**21,710,420**	**14,524,315**	**4,250,248**	**13.14**	**3.4**
	OTHER PRODUCTION PLANT									
	PUEBLO DIESEL									
341.00	STRUCTURES AND IMPROVEMENTS	40-L1	*	(5)	31,587.30	23,510	9,657	658	2.08	14.7
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	50-R4	*	(20)	292,820.19	155,944	195,440	10,504	3.59	18.6
343.00	PRIME MOVERS	45-R1	*	(5)	422,445.90	37,609	405,959	23,157	5.48	17.5
344.00	GENERATORS	40-R1.5	*	(15)	609,699.28	555,004	146,150	15,098	2.48	9.7
345.00	ACCESSORY ELECTRIC EQUIPMENT	35-S1.5	*	(5)	188,982.99	118,396	80,036	8,869	4.69	9.0
	TOTAL PUEBLO DIESEL				**1,545,535.66**	**890,463**	**837,242**	**58,286**	**3.77**	**14.4**
	PUEBLO INDUSTRIAL PARK DIESEL									
341.00	STRUCTURES AND IMPROVEMENTS	40-L1	*	(5)	75,902.40	27,425	52,272	2,780	3.66	18.8
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	50-R4	*	(20)	214,204.97	77,621	179,425	8,261	3.86	21.7
343.00	PRIME MOVERS	45-R1	*	(5)	1,919,212.00	218,302	1,796,871	90,889	4.74	19.8
344.00	GENERATORS	40-R1.5	*	(15)	1,008,925.03	339,735	820,529	41,704	4.13	19.7
345.00	ACCESSORY ELECTRIC EQUIPMENT	35-S1.5	*	(5)	708,092.10	194,653	548,844	28,739	4.06	19.1
	TOTAL PUEBLO INDUSTRIAL PARK DIESEL				**3,926,336.50**	**857,736**	**3,397,941**	**172,373**	**4.39**	**19.7**
	ROCKY FORD DIESEL									
341.00	STRUCTURES AND IMPROVEMENTS	40-L1	*	(5)	183,363.20	137,080	55,451	3,666	2.00	15.1
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	50-R4	*	(20)	103,785.95	62,393	62,150	3,665	3.53	17.0
344.00	GENERATORS	40-R1.5	*	(15)	700,474.32	637,635	167,910	17,346	2.48	9.7
345.00	ACCESSORY ELECTRIC EQUIPMENT	35-S1.5	*	(5)	135,935.96	91,121	51,611	6,696	4.93	7.7
346.00	MISCELLANEOUS PLANT EQUIPMENT	30-R4	*	0	136,499.53	136,500	0	0	-	-
	TOTAL ROCKY FORD DIESEL				**1,260,058.96**	**1,064,729**	**337,122**	**31,373**	**2.49**	**10.7**
	DOC GENERATORS									
344.00	GENERATORS	40-R1.5	*	(15)	175,016.92	43,636	157,633	6,103	3.49	25.8
345.00	ACCESSORY ELECTRIC EQUIPMENT	35-S1.5	*	(5)	26,009.96	6,117	21,193	897	3.45	23.6
	TOTAL DOC GENERATORS				**201,026.88**	**49,753**	**178,826**	**7,000**	**3.48**	**25.5**
	TOTAL OTHER PRODUCTION PLANT				**6,932,958.00**	**2,862,681**	**4,751,131**	**269,032**	**3.88**	**17.7**
	TOTAL PRODUCTION PLANT				**39,285,399.56**	**24,573,101**	**19,275,446**	**4,519,280**	**11.50**	**4.3**
	TRANSMISSION PLANT									
352.00	STRUCTURES AND IMPROVEMENTS	60-R4		(5)	1,902,116.85	598,767	1,398,457	27,264	1.43	51.3
352.59	STRUCTURES AND IMPROVEMENTS - AMORTIZED	Square	*	0	220,613.03	87,641	132,972	2,582	1.17	51.5
353.00	STATION EQUIPMENT	55-R3		(10)	46,045,772.88	17,389,717	33,260,631	669,162	1.45	49.7
353.59	STATION EQUIPMENT - AMORTIZED	Square	*	0	3,864,601.38	1,543,123	2,321,478	45,077	1.17	51.5
355.00	POLES AND FIXTURES	55-R2.5		(50)	13,276,525.53	5,608,305	14,306,480	276,662	2.08	51.7

BLACK HILLS COLORADO ELECTRIC UTILITY COMPANY, LP

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF JUNE 30, 2010

	ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
356.00	OVERHEAD CONDUCTORS AND DEVICES	55-R3	(40)	14,287,234.74	5,006,730	14,995,402	290,045	2.03	51.7
357.00	UNDERGROUND CONDUIT	45-R4	0	1,309.01	83	1,226	29	2.22	42.3
358.00	UNDERGROUND CONDUCTORS AND DEVICES	45-R4	0	27,957.41	1,875	26,082	607	2.17	43.0
	TOTAL TRANSMISSION PLANT			**79,626,130.83**	**30,236,241**	**66,442,728**	**1,311,428**	**1.65**	**50.7**
	DISTRIBUTION PLANT								
361.00	STRUCTURES AND IMPROVEMENTS	65-R4	(5)	460,612.26	210,459	273,184	5,219	1.13	52.3
362.00	STATION EQUIPMENT	60-R3	(20)	24,123,223.29	11,079,510	17,868,358	363,513	1.51	49.2
364.00	POLES, TOWERS AND FIXTURES	55-R3	(50)	40,213,117.60	19,356,617	40,963,059	1,076,651	2.68	38.0
365.00	OVERHEAD CONDUCTORS AND DEVICES	55-R2.5	(50)	32,854,046.93	20,837,453	28,443,616	672,020	2.05	42.3
366.00	UNDERGROUND CONDUIT	60-R3	(40)	9,583,447.04	2,559,285	10,857,539	231,200	2.41	47.0
367.00	UNDERGROUND CONDUCTORS AND DEVICES	45-R4	(15)	17,751,209.42	10,548,019	9,865,873	265,628	1.50	37.1
368.10	LINE TRANSFORMERS - OTHER EQUIPMENT	44-R3	0	5,865,527.91	2,418,953	3,446,578	97,860	1.67	35.2
368.20	LINE TRANSFORMERS - CONVENTIONAL	44-R3	0	17,100,878.64	13,286,671	3,814,204	100,299	0.59	38.0
368.30	LINE TRANSFORMERS - PADMOUNT	44-R3	0	15,230,994.52	7,897,051	7,333,944	199,359	1.31	36.8
369.10	SERVICES - OVERHEAD	50-R4	(75)	7,578,156.82	5,436,666	7,825,106	266,089	3.51	29.4
369.20	SERVICES - UNDERGROUND	45-S4	(100)	10,857,253.25	4,062,650	17,651,857	513,937	4.73	34.3
370.10	METERS - OTHER	45-R2.5	** (5)	5,819,590.65	1,933,308	4,177,262	678,256	11.65	6.2
370.20	METERS - LOAD RESEARCH METERS	45-R2.5	** 0	401,030.71	394,436	6,595	1,039	0.26	6.3
370.40	METERS - AMI	15-S2.5	0	7,684,858.77	138,315	7,546,544	537,909	7.00	14.0
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	35-R1.5	(20)	1,640,042.79	1,591,479	376,573	11,300	0.69	33.3
373.00	STREET LIGHTING AND SIGNAL SYSTEMS	36-R1	(20)	7,666,418.92	4,843,912	4,355,794	142,433	1.86	30.6
	TOTAL DISTRIBUTION PLANT			**204,830,409.52**	**106,594,784**	**164,806,086**	**5,162,712**	**2.52**	**31.9**
	GENERAL PLANT								
390.10	STRUCTURES AND IMPROVEMENTS - OWNED								
	CANON CITY SERVICE CENTER	60-R2	* (10)	598,281.55	366,252	291,858	24,994	4.18	11.7
	PUEBLO SERVICE CENTER	60-R2	* (10)	3,825,343.80	2,262,760	1,945,119	114,434	2.99	17.0
	ROCKY FORD SERVICE CENTER	60-R2	* (10)	190,109.02	148,826	60,296	5,323	2.80	11.3
	VICTOR SERVICE CENTER	60-R2	* (10)	86,153.42	31,152	63,616	5,028	5.84	12.7
	MISCELLANEOUS STRUCTURES	50-R3	(5)	301,607.99	64,910	251,777	6,133	2.03	41.1
	TOTAL ACCOUNT 390.10			5,001,495.78	2,873,900	2,612,666	155,912	3.12	16.8
	OFFICE FURNITURE AND EQUIPMENT								
391.10	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	1,477,425.27	831,717	645,707	103,144	6.98	6.3
391.30	COMPUERT HARDWARE	5-SQ	0	1,468,668.96	423,774	1,044,896	532,826	36.28	2.0
391.40	SOFTWARE	5-SQ	0	91,053.86	64,738	26,315	16,781	18.43	1.6
391.50	SYSTEM DEVELOPMENT	15-SQ	0	194,455.64	141,081	53,375	26,688	13.72	2.0
	TOTAL ACCOUNT 391			3,231,603.73	1,461,310	1,770,293	679,439	21.02	
	TRANSPORTATION EQUIPMENT								
392.10	SUBUNIT	15-L4	0	47,095.67	37,096	10,000	3,155	6.70	3.2
392.20	CARS	7-L4	10	30,085.34	3,091	23,985	4,213	14.00	5.7
392.30	LIGHT TRUCKS	7-L5	10	745,907.37	131,130	540,186	106,321	14.25	5.1
392.40	MEDIUM TRUCKS	9-L3	10	614,832.88	68,272	485,077	64,443	10.48	7.5
392.50	HEAVY TRUCKS	10-L4	15	2,682,864.10	431,739	1,848,696	246,338	9.18	7.5
392.60	TRAILERS	30-L0.5	10	607,360.81	491,718	54,911	1,939	0.32	28.3
	TOTAL ACCOUNT 392			4,728,146.17	1,163,046	2,962,855	426,409	9.02	6.9
393.00	STORES EQUIPMENT	25-SQ	0	149,446.88	103,041	46,405	9,096	6.09	5.1
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	1,201,582.58	725,860	475,723	25,182	2.10	18.9
395.00	LABORATORY EQUIPMENT	20-SQ	0	1,036,017.03	829,620	206,400	13,103	1.26	15.8

BLACK HILLS COLORADO ELECTRIC UTILITY COMPANY, LP

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF JUNE 30, 2010

	ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
	POWER OPERATED EQUIPMENT								
396.10	OFF ROAD POWER EQUIPMENT - SHORT LIFE	8-L2	30	372,155.89	86,404	174,105	49,087	13.19	3.5
396.20	OFF ROAD POWER EQUIPMENT - LONF LIFE	25-S0.5	10	1,229,383.08	327,323	779,121	41,099	3.34	19.0
	TOTAL ACCOUNT 396			1,601,538.97	413,727	953,226	90,186	5.63	10.6
397.00	COMMUNICATION EQUIPMENT	15-SQ	0	4,778,086.26	905,791	3,872,295	412,527	8.63	9.4
398.00	MISCELLANEOUS EQIPMENT	20-SQ	0	161,971.02	24,363	137,610	9,453	5.84	14.6
	TOTAL GENERAL PLANT			**21,889,888.42**	**8,500,658**	**13,037,473**	**1,821,307**	**8.32**	**7.2**
	TOTAL DEPRECIABLE PLANT			**345,631,828.33**	**169,904,784**	**263,561,733**	**12,814,727**	**3.71**	**20.6**
	NONDEPRECIABLE PLANT								
301.00	ORGANIZATION			200,900.31	90,732				
	MISCELLANEOUS INTANGIBLE PLANT								
303.10	EASEMENTS			310,000.00	29,708				
303.20	TRADEMARKS			19,000.00	0				
	TOTAL ACCOUNT 303			329,000.00	29,708				
310.10	LAND			168,504.26					
310.20	RIGHTS OF WAY			85,743.60					
340.10	LAND			105,972.38					
350.10	LAND			205,945.87					
350.20	RIGHTS OF WAY			511,392.51					
360.10	LAND			222,643.12					
360.20	RIGHTS OF WAY			5,615.90					
389.10	LAND			220,080.22					
389.20	RIGHTS OF WAY			46,541.05					
	TOTAL NONDEPRECIABLE PLANT			**2,102,339.22**	**120,440**				
	TOTAL ELECTRIC PLANT			**347,734,167.55**	**170,025,224**	**263,561,733**	**12,814,727**		

* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.
** Non-AMI meters to be retired by end of 2016 as part of AMI implementation plan.

PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] NET SALVAGE Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
STEAM PRODUCTION PLANT														
	BLUNDELL													
310.20	Land Rights	32,411,629	LIFESPAN	38.12	-	-	12,592,667	19,818,962	27.00	734,036	2.26	3.81	1,234,883	(500,847)
311.00	Structures & Improvements	6,683,493	LIFESPAN	46.12	(2.55)	(170,429)	3,883,898	2,970,024	25.95	114,452	1.71	3.45	230,581	(116,129)
312.00	Boiler Plant Equipment	20,621,060	LIFESPAN	42.09	(2.45)	(505,216)	11,002,460	10,123,816	24.60	411,537	2.00	3.53	727,923	(316,386)
314.00	Turbogenerator Units	15,568,602	LIFESPAN	41.09	(3.94)	(613,403)	8,476,332	7,705,673	23.31	330,574	2.12	3.85	599,391	(268,817)
315.00	Accessory Electric Equipment	4,810,398	LIFESPAN	47.13	(1.74)	(83,701)	2,840,093	2,054,006	26.19	78,427	1.63	3.38	162,591	(84,164)
316.00	Misc. Power Plant Equipment	1,058,857	LIFESPAN	41.00	(2.69)	(28,483)	625,492	461,848	20.28	22,774	2.15	3.68	38,966	(16,192)
	Total Blundell	81,154,039		40.93	(1.73)	(1,401,232)	39,420,942	43,134,329	25.46	1,691,799	2.08	3.69	2,994,336	(1,302,537)
	CARBON													
311.00	Structures & Improvements	12,195,375	LIFESPAN	40.35	(9.94)	(1,212,220)	9,025,825	4,381,770	13.55	323,378	2.65	4.39	535,377	(211,999)
312.00	Boiler Plant Equipment	53,344,029	LIFESPAN	31.73	(9.77)	(5,211,712)	34,194,328	24,361,413	13.10	1,859,650	3.49	5.26	2,805,896	(946,246)
314.00	Turbogenerator Units	20,104,051	LIFESPAN	34.45	(10.37)	(2,084,790)	13,823,895	8,364,946	12.51	668,661	3.33	4.66	936,849	(268,188)
315.00	Accessory Electric Equipment	4,483,667	LIFESPAN	42.36	(9.59)	(429,984)	3,394,423	1,519,228	13.64	111,380	2.48	3.38	151,548	(40,168)
316.00	Misc. Power Plant Equipment	324,177	LIFESPAN	38.67	(9.49)	(30,764)	241,990	112,951	11.10	10,176	3.14	5.15	16,695	(6,519)
	Total Carbon	90,451,299		34.05	(9.92)	(8,969,470)	60,680,461	38,740,308	13.05	2,973,245	3.29	4.92	4,446,365	(1,473,120)
	CHOLLA													
311.00	Structures & Improvements	46,531,254	LIFESPAN	59.67	(6.53)	(3,038,491)	26,467,173	23,102,572	37.13	622,208	1.34	2.37	1,102,791	(480,583)
312.00	Boiler Plant Equipment	224,663,224	LIFESPAN	56.89	(6.04)	(13,569,659)	126,951,548	111,281,335	34.54	3,221,811	1.43	2.44	5,481,783	(2,259,972)
314.00	Turbogenerator Units	52,435,858	LIFESPAN	54.19	(7.87)	(4,126,702)	29,375,361	27,187,199	32.29	841,970	1.61	2.46	1,289,922	(447,952)
315.00	Accessory Electric Equipment	46,931,139	LIFESPAN	61.88	(5.38)	(2,524,895)	27,936,097	21,519,937	37.54	573,254	1.22	2.19	1,027,792	(454,538)
316.00	Misc. Power Plant Equipment	3,144,722	LIFESPAN	50.56	(5.43)	(170,758)	1,818,876	1,496,604	27.32	54,781	1.74	2.44	76,731	(21,951)
	Total Cholla	373,706,197		57.43	(6.27)	(23,430,505)	212,549,055	184,587,647	34.86	5,314,022	1.42	2.40	8,979,019	(3,664,997)
	COLSTRIP													
311.00	Structures & Improvements	57,092,259	LIFESPAN	61.88	(5.23)	(2,985,925)	29,520,152	30,558,032	40.84	748,238	1.31	2.24	1,278,867	(530,629)
312.00	Boiler Plant Equipment	109,820,198	LIFESPAN	58.26	(4.82)	(5,293,334)	55,503,016	59,610,516	37.87	1,574,083	1.43	2.30	2,525,865	(951,782)
314.00	Turbogenerator Units	31,536,371	LIFESPAN	51.87	(6.94)	(2,188,624)	13,746,716	19,978,279	35.53	562,293	1.78	2.55	804,177	(241,884)
315.00	Accessory Electric Equipment	8,906,050	LIFESPAN	63.00	(3.94)	(350,898)	4,672,627	4,584,321	41.34	110,893	1.25	2.18	194,152	(83,259)
316.00	Misc. Power Plant Equipment	2,181,451	LIFESPAN	48.99	(4.51)	(98,383)	1,050,111	1,229,723	29.96	41,046	1.88	2.62	57,154	(16,109)
	Total Colstrip	209,536,329		58.39	(5.21)	(10,917,165)	104,492,622	115,960,872	38.39	3,036,552	1.45	2.32	4,860,215	(1,823,662)
	CRAIG													
311.00	Structures & Improvements	35,748,677	LIFESPAN	52.97	(6.06)	(2,166,370)	17,844,955	20,070,092	27.01	743,062	2.08	2.57	918,741	(175,679)
312.00	Boiler Plant Equipment	90,528,120	LIFESPAN	43.91	(5.75)	(5,205,367)	36,866,078	58,867,409	25.75	2,286,113	2.53	2.66	2,408,048	(121,935)
314.00	Turbogenerator Units	19,618,853	LIFESPAN	47.33	(7.11)	(1,394,900)	9,183,085	11,830,668	24.41	484,665	2.47	2.77	543,442	(58,777)
315.00	Accessory Electric Equipment	16,399,943	LIFESPAN	54.02	(5.25)	(860,997)	8,301,990	8,958,950	27.24	328,890	2.01	2.50	409,999	(81,109)
316.00	Misc. Power Plant Equipment	1,661,857	LIFESPAN	46.83	(5.40)	(89,740)	815,762	935,835	21.60	43,326	2.61	2.79	46,366	(3,040)
	Total Craig	163,957,450		47.34	(5.93)	(9,717,374)	73,011,870	100,662,954	25.97	3,886,055	2.37	2.64	4,326,596	(440,541)
	DAVE JOHNSTON													
310.20	Land Rights	99,970	LIFESPAN	57.39	-	-	63,946	36,024	24.00	1,501	1.50	2.42	2,419	(918)
311.00	Structures & Improvements	50,207,724	LIFESPAN	42.33	(9.94)	(4,990,648)	25,821,086	29,377,286	23.25	1,263,539	2.52	3.53	1,772,333	(508,793)
312.00	Boiler Plant Equipment	280,524,596	LIFESPAN	41.61	(9.50)	(26,649,837)	145,384,914	161,789,519	22.18	7,294,388	2.60	3.60	10,098,885	(2,804,498)
314.00	Turbogenerator Units	67,360,848	LIFESPAN	42.95	(10.49)	(7,066,153)	37,398,408	37,028,593	21.12	1,753,248	2.60	3.29	2,216,172	(462,924)
315.00	Accessory Electric Equipment	16,807,137	LIFESPAN	50.89	(9.28)	(1,559,702)	10,405,660	7,961,179	23.37	340,658	2.03	2.93	492,449	(151,791)
316.00	Misc. Power Plant Equipment	4,984,660	LIFESPAN	24.53	(8.66)	(431,672)	922,277	4,494,055	19.91	225,718	4.53	4.61	229,793	(4,074)
	Total Dave Johnston	419,984,935		42.08	(9.69)	(40,698,011)	219,996,291	240,686,655	22.16	10,879,052	2.59	3.53	14,812,051	(3,932,999)

PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	GADSBY													
311.00	Structures & Improvements	13,877,760	LIFESPAN	39.71	(17.00)	(2,359,219)	13,890,654	2,346,325	10.36	226,479	1.63	6.59	914,544	(688,065)
312.00	Boiler Plant Equipment	35,982,433	LIFESPAN	38.11	(16.85)	(6,063,040)	35,698,463	6,347,010	9.58	662,527	1.84	6.74	2,425,216	(1,762,689)
314.00	Turbogenerator Units	14,173,972	LIFESPAN	40.77	(17.26)	(2,446,428)	14,574,428	2,045,972	8.55	239,295	1.69	6.15	871,699	(632,404)
315.00	Accessory Electric Equipment	5,579,284	LIFESPAN	42.77	(16.74)	(933,972)	5,725,824	787,432	10.42	75,569	1.35	6.30	351,495	(275,926)
316.00	Misc. Power Plant Equipment	761,059	LIFESPAN	25.13	(16.56)	(126,031)	619,103	267,987	8.92	30,043	3.95	7.88	59,971	(29,928)
	Total Gadsby	70,374,508		39.19	(16.95)	(11,928,690)	70,508,472	11,794,726	9.59	1,233,914	1.75	6.57	4,622,926	(3,389,012)
	HAYDEN													
311.00	Structures & Improvements	5,991,642	LIFESPAN	49.90	(6.66)	(399,043)	3,605,752	2,784,933	23.15	120,299	2.01	2.40	143,799	(23,500)
312.00	Boiler Plant Equipment	51,076,299	LIFESPAN	37.30	(6.52)	(3,330,175)	22,378,947	32,027,527	22.26	1,438,793	2.82	3.36	1,716,164	(277,371)
314.00	Turbogenerator Units	6,477,476	LIFESPAN	45.97	(7.61)	(492,936)	3,798,370	3,172,042	20.94	151,482	2.34	2.80	181,369	(29,887)
315.00	Accessory Electric Equipment	2,480,826	LIFESPAN	54.31	(6.08)	(150,834)	1,591,175	1,040,485	23.32	44,618	1.80	2.36	58,547	(13,930)
316.00	Misc. Power Plant Equipment	1,107,141	LIFESPAN	41.53	(6.09)	(67,425)	612,107	562,459	18.79	29,934	2.70	3.02	33,436	(3,502)
	Total Hayden	67,133,384		39.96	(6.61)	(4,440,413)	31,986,351	39,587,446	22.19	1,785,126	2.66	3.18	2,133,316	(348,189)
	HUNTER													
310.20	Land Rights	246,338	LIFESPAN	63.99	-	-	132,252	114,086	39.00	2,925	1.19	2.39	5,887	(2,962)
311.00	Structures & Improvements	201,765,763	LIFESPAN	61.47	(7.21)	(14,547,312)	108,840,913	107,472,162	37.18	2,890,591	1.43	2.62	5,286,263	(2,395,672)
312.00	Boiler Plant Equipment	514,488,895	LIFESPAN	55.42	(6.66)	(34,264,960)	249,724,780	299,029,075	34.78	8,597,731	1.67	2.76	14,199,894	(5,602,163)
314.00	Turbogenerator Units	147,308,254	LIFESPAN	47.48	(8.44)	(12,432,817)	56,473,769	103,267,302	32.90	3,138,824	2.13	3.21	4,728,595	(1,589,771)
315.00	Accessory Electric Equipment	98,414,791	LIFESPAN	61.48	(6.08)	(5,983,619)	52,321,888	52,076,522	37.62	1,384,278	1.41	2.58	2,539,102	(1,154,824)
316.00	Misc. Power Plant Equipment	3,933,490	LIFESPAN	50.08	(5.88)	(231,289)	1,999,160	2,165,619	27.84	77,788	1.98	2.86	112,498	(34,710)
	Total Hunter	966,157,531		56.07	(6.98)	(67,459,997)	469,492,762	564,124,766	35.26	16,092,136	1.67	2.78	26,872,238	(10,780,102)
	HUNTINGTON													
311.00	Structures & Improvements	100,385,029	LIFESPAN	58.95	(8.42)	(8,452,419)	56,344,440	52,493,008	31.63	1,659,596	1.65	3.14	3,152,090	(1,492,494)
312.00	Boiler Plant Equipment	383,517,679	LIFESPAN	42.93	(7.88)	(30,221,193)	132,204,891	281,533,981	30.12	9,347,078	2.44	3.44	13,193,008	(3,845,930)
314.00	Turbogenerator Units	95,025,076	LIFESPAN	44.29	(9.31)	(8,846,835)	38,270,232	65,601,679	28.46	2,305,048	2.43	3.83	3,639,460	(1,334,412)
315.00	Accessory Electric Equipment	30,826,358	LIFESPAN	57.30	(7.48)	(2,305,812)	16,503,930	16,628,240	31.98	519,957	1.69	3.09	952,534	(432,577)
316.00	Misc. Power Plant Equipment	2,276,528	LIFESPAN	45.46	(6.96)	(158,446)	1,078,570	1,356,404	24.76	54,782	2.41	3.84	87,419	(32,637)
	Total Huntington	612,030,670		46.50	(8.17)	(49,984,705)	244,402,063	417,613,312	30.18	13,886,461	2.27	3.44	21,024,512	(7,138,050)
	JAMES RIVER													
311.00	Structures & Improvements	5,733,734	LIFESPAN	20.29	(1.18)	(67,658)	2,856,370	2,945,022	9.79	300,819	5.25	5.78	331,410	(30,590)
312.00	Boiler Plant Equipment	5,798,092	LIFESPAN	20.00	(1.17)	(67,838)	2,887,994	2,977,936	9.50	313,467	5.41	5.82	337,449	(23,982)
314.00	Turbogenerator Units	18,601,252	LIFESPAN	19.72	(1.66)	(308,781)	9,333,978	9,576,055	9.22	1,038,618	5.58	5.96	1,108,635	(70,017)
315.00	Accessory Electric Equipment	4,302,276	LIFESPAN	20.18	(0.93)	(40,011)	2,117,716	2,224,571	9.85	225,845	5.25	5.72	246,090	(20,245)
	Total James River	34,435,354		19.92	(1.41)	(484,288)	17,196,058	17,723,584	9.44	1,878,749	5.46	5.88	2,023,584	(144,835)
	JIM BRIDGER													
310.20	Land Rights	281,111	LIFESPAN	64.44	-	-	174,009	107,102	34.00	3,150	1.12	2.54	7,140	(3,990)
311.00	Structures & Improvements	133,223,694	LIFESPAN	59.36	(9.00)	(11,990,132)	80,879,275	64,334,551	32.51	1,978,916	1.49	3.03	4,036,678	(2,057,762)
312.00	Boiler Plant Equipment	563,605,760	LIFESPAN	50.58	(8.39)	(47,286,523)	285,062,675	325,829,608	30.68	10,620,261	1.88	3.27	18,429,908	(7,809,647)
314.00	Turbogenerator Units	141,995,226	LIFESPAN	45.52	(9.82)	(13,943,931)	63,767,675	92,171,482	29.11	3,166,317	2.23	3.57	5,069,230	(1,902,913)
315.00	Accessory Electric Equipment	53,139,468	LIFESPAN	61.72	(8.04)	(4,272,413)	33,416,331	23,995,550	32.84	730,681	1.38	2.85	1,514,475	(783,794)
316.00	Misc. Power Plant Equipment	3,880,932	LIFESPAN	50.50	(7.32)	(284,084)	2,282,229	1,882,787	24.71	76,195	1.96	3.26	126,518	(50,323)
	Total Jim Bridger	896,126,191		51.75	(8.68)	(77,777,084)	465,582,194	508,321,081	30.81	16,575,520	1.85	3.26	29,183,949	(12,608,430)
	NAUGHTON													
310.20	Land Rights	15,016	LIFESPAN	69.50	-	-	10,483	4,533	26.00	174	1.16	1.52	228	(54)
311.00	Structures & Improvements	60,389,753	LIFESPAN	45.42	(10.14)	(6,123,521)	31,204,990	35,308,284	25.14	1,404,466	2.33	2.87	1,733,186	(328,720)
312.00	Boiler Plant Equipment	233,299,215	LIFESPAN	42.10	(9.65)	(22,513,374)	112,612,707	143,199,882	23.98	5,971,638	2.56	2.90	6,765,677	(794,039)
314.00	Turbogenerator Units	59,084,843	LIFESPAN	39.68	(10.70)	(6,322,078)	27,361,118	38,045,803	22.93	1,659,215	2.81	2.63	1,553,931	105,284
315.00	Accessory Electric Equipment	20,068,312	LIFESPAN	48.20	(9.43)	(1,892,442)	11,036,112	10,924,642	25.33	431,293	2.15	2.40	481,639	(50,347)
316.00	Misc. Power Plant Equipment	1,774,799	LIFESPAN	45.78	(8.68)	(154,053)	1,033,304	895,548	20.06	44,643	2.52	2.72	48,275	(3,631)
	Total Naughton	374,631,938		42.60	(9.88)	(37,005,468)	183,258,714	228,378,692	24.06	9,511,430	2.54	2.82	10,582,937	(1,071,507)

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PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance $	[4] IOWA CURVE	[5] Average Life Yrs	[6] NET SALVAGE Percent %	[7] NET SALVAGE Amount $	[8] 12/31/2006 Book Reserve $	[9] Net Plant $	[10] Rem. Life Yrs	[11] Annual Amount $	[12] Deprec. Rate %	[13] Existing Rate %	[14] Annual Amount $	[15] Increase or (Decrease) $
	WYODAK													
310.20	Land Rights	164,797	LIFESPAN	60.69	-	-	87,693	77,104	36.00	2,142	1.30	2.85	4,697	(2,555)
311.00	Structures & Improvements	49,345,431	LIFESPAN	60.42	(5.48)	(2,704,130)	27,979,376	24,070,185	34.36	700,529	1.42	2.95	1,455,690	(755,161)
312.00	Boiler Plant Equipment	209,108,760	LIFESPAN	53.35	(5.11)	(10,685,458)	103,984,948	115,809,270	32.37	3,577,673	1.71	3.15	6,586,926	(3,009,253)
314.00	Turbogenerator Units	48,780,563	LIFESPAN	53.01	(6.89)	(3,360,981)	25,713,091	26,428,453	30.24	873,957	1.79	3.09	1,507,319	(633,363)
315.00	Accessory Electric Equipment	19,417,597	LIFESPAN	62.49	(4.41)	(856,316)	11,348,510	8,925,403	34.73	256,994	1.32	2.84	551,460	(294,466)
316.00	Misc. Power Plant Equipment	838,940	LIFESPAN	39.71	(4.78)	(40,101)	295,479	583,562	26.90	21,694	2.59	3.20	26,846	(5,152)
	Total Wyodak	327,656,088		54.87	(5.39)	(17,646,985)	169,409,097	175,893,976	32.48	5,432,988	1.66	3.09	10,132,938	(4,699,950)
	Total Depreciable Steam Production Plant	4,687,335,913		50.05	(7.72)	(361,861,389)	2,361,986,952	2,687,210,350	29.90	94,177,049	2.01	3.14	146,994,980	(52,817,930)
310.30	Water Rights	39,699,560					15,156,069							
	Total Steam Production Plant	4,727,035,473				(361,861,389)	2,377,143,021	2,687,210,350		94,177,049			146,994,980	(52,817,930)
HYDRAULIC PRODUCTION PLANT														
	AMERICAN FORK													
331.0	Structures & Improvements	90,858	LIFESPAN	37.54	-	-	80,774	10,084	0.67	10,084	11.10	28.38	25,786	(15,702)
332.0	Reservoirs, Dams & Waterways	662,878	LIFESPAN	40.41	-	-	590,978	71,900	0.67	71,900	10.85	28.24	187,197	(115,297)
333.0	Waterwheels, Turbines & Generators	120,897	LIFESPAN	32.17	-	-	106,768	14,129	0.67	14,129	11.69	28.68	34,673	(20,544)
334.0	Accessory Electric Equipment	123,275	LIFESPAN	24.97	-	-	107,421	15,854	0.67	15,854	12.86	29.18	35,972	(20,118)
335.0	Misc. Power Plant Equipment	2,181	LIFESPAN	21.78	-	-	1,884	297	0.67	297	13.62	29.64	646	(349)
336.0	Roads, Railroads & Bridges	8,708	LIFESPAN	15.17	-	-	7,301	1,407	0.67	1,407	16.16	30.79	2,681	(1,274)
	TOTAL AMERICAN FORK	1,008,797		37.02	-	-	895,126	113,671	0.67	113,671	11.27	28.45	286,955	(173,284)
	ASHTON/ST. ANTHONY													
330.2	Land Rights	28,700	LIFESPAN	40.50	-	-	10,841	17,859	21.00	850	2.96	3.05	875	(25)
331.0	Structures & Improvements	1,201,812	LIFESPAN	43.26	(0.80)	(9,614)	492,932	718,494	20.56	34,946	2.91	2.88	34,612	334
332.0	Reservoirs, Dams & Waterways	5,060,587	LIFESPAN	40.01	(1.16)	(58,703)	1,920,717	3,198,573	20.63	155,045	3.06	3.22	162,951	(7,906)
333.0	Waterwheels, Turbines & Generators	2,447,513	LIFESPAN	39.19	(2.14)	(52,377)	918,938	1,580,952	20.44	77,346	3.16	3.14	76,852	494
334.0	Accessory Electric Equipment	1,289,383	LIFESPAN	39.12	(2.64)	(34,040)	492,184	831,239	19.90	41,771	3.24	3.19	41,131	639
335.0	Misc. Power Plant Equipment	8,847	LIFESPAN	47.70	-	-	3,986	4,861	19.51	249	2.82	2.96	262	(13)
336.0	Roads, Railroads & Bridges	744	LIFESPAN	109.90	(1.07)	(8)	480	272	20.40	13	1.79	2.14	16	(3)
	TOTAL ASHTON/ST. ANTHONY	10,037,586		40.10	(1.54)	(154,742)	3,840,078	6,352,250	20.48	310,221	3.09	3.16	316,699	(6,479)
	BEAR RIVER													
330.2	Land Rights	5,879	LIFESPAN	114.85	-	-	3,664	2,215	27.00	82	1.40	1.58	93	(11)
331.0	Structures & Improvements	3,294,144	LIFESPAN	75.50	(1.07)	(35,247)	1,733,047	1,596,344	26.24	60,836	1.85	1.82	59,953	883
332.0	Reservoirs, Dams & Waterways	17,358,186	LIFESPAN	69.33	(1.55)	(269,052)	8,677,236	8,950,002	26.36	339,530	1.96	2.05	355,843	(16,313)
333.0	Waterwheels, Turbines & Generators	7,867,538	LIFESPAN	55.01	(2.84)	(223,438)	3,315,715	4,775,261	26.10	182,960	2.33	2.11	166,005	16,955
334.0	Accessory Electric Equipment	3,125,742	LIFESPAN	49.96	(3.48)	(108,776)	1,227,409	2,007,109	24.88	80,672	2.58	2.21	69,079	11,593
335.0	Misc. Power Plant Equipment	110,716	LIFESPAN	48.52	-	-	41,907	68,809	24.85	2,769	2.50	2.46	2,724	45
336.0	Roads, Railroads & Bridges	541,429	LIFESPAN	54.24	(1.42)	(7,688)	223,751	325,366	26.32	12,362	2.28	2.19	11,857	505
	TOTAL BEAR RIVER	32,303,634		64.28	(1.99)	(644,201)	15,222,729	17,725,106	26.14	679,211	2.10	2.06	665,554	13,657
	BEND													
331.0	Structures & Improvements	56,557	LIFESPAN	49.36	(0.05)	(28)	66,693	(10,108)	3.99	-	0.00	1.19	673	(673)
332.0	Reservoirs, Dams & Waterways	77,921	LIFESPAN	86.70	(0.07)	(55)	95,788	(17,812)	3.99	-	0.00	0.04	31	(31)
333.0	Waterwheels, Turbines & Generators	76,558	LIFESPAN	68.78	(0.12)	(92)	92,788	(16,138)	3.99	-	0.00	0.56	429	(429)
334.0	Accessory Electric Equipment	628,086	LIFESPAN	23.70	(0.15)	(942)	662,850	(33,822)	3.98	-	0.00	3.87	24,307	(24,307)
335.0	Misc. Power Plant Equipment	15,384	LIFESPAN	9.48	-	-	10,967	4,417	3.98	1,110	7.21	34.79	5,352	(4,242)
336.0	Roads, Railroads & Bridges	174	LIFESPAN	74.49	(0.06)	(0)	212	(38)	3.99	-	0.00	0.46	1	(1)
	TOTAL BEND	854,680		34.93	(0.13)	(1,117)	929,298	(73,501)	3.98	1,110	0.13	3.60	30,793	(29,683)

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PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	BIG FORK													
331.0	Structures & Improvements	327,920	LIFESPAN	74.76	(1.93)	(6,329)	290,684	43,565	45.37	960	0.29	1.29	4,230	(3,270)
332.0	Reservoirs, Dams & Waterways	4,428,612	LIFESPAN	59.17	(2.80)	(124,001)	2,327,508	2,225,105	45.29	49,130	1.11	2.22	98,315	(49,185)
333.0	Waterwheels, Turbines & Generators	1,277,692	LIFESPAN	57.64	(5.11)	(65,290)	648,304	694,678	44.47	15,621	1.22	2.39	30,537	(14,916)
334.0	Accessory Electric Equipment	196,949	LIFESPAN	66.50	(6.08)	(11,974)	175,194	33,729	37.43	901	0.46	1.34	2,639	(1,738)
336.0	Roads, Railroads & Bridges	3,731	LIFESPAN	124.20	(2.57)	(96)	5,377	(1,550)	46.55	-	0.00	-	-	-
	TOTAL BIG FORK	6,234,904		59.95	(3.33)	(207,690)	3,447,067	2,995,527	44.88	66,613	1.07	2.18	135,721	(69,109)
	CLINE FALLS													
331.0	Structures & Improvements	116,852	LIFESPAN	29.56	(0.18)	(210)	139,217	(22,155)	6.96	-	0.00	17.87	20,881	(20,881)
332.0	Reservoirs, Dams & Waterways	83,976	LIFESPAN	44.61	(0.26)	(218)	111,116	(26,922)	6.96	-	0.00	16.26	13,654	(13,654)
333.0	Waterwheels, Turbines & Generators	47,119	LIFESPAN	66.57	(0.48)	(226)	66,414	(19,069)	6.94	-	0.00	15.33	7,223	(7,223)
334.0	Accessory Electric Equipment	53,902	LIFESPAN	29.16	(0.56)	(302)	64,004	(9,800)	6.86	-	0.00	15.45	8,328	(8,328)
336.0	Roads, Railroads & Bridges	745	LIFESPAN	70.46	(0.24)	(2)	1,057	(310)	6.96	-	0.00	15.25	114	(114)
	TOTAL CLINE FALLS	302,594		39.53	(0.32)	(958)	381,808	(78,256)	6.94	-	0.00	16.59	50,201	(50,201)
	CONDIT													
330.2	Land Rights	172	LIFESPAN	77.50	-	-	139	33	2.00	17	9.59	6.98	12	4
330.4	Flood Rights	2,964	LIFESPAN	97.50	-	-	2,412	552	2.00	276	9.31	6.71	199	77
331.0	Structures & Improvements	1,012,380	LIFESPAN	35.92	-	-	787,419	224,961	2.00	112,481	11.11	28.65	290,047	(177,566)
332.0	Reservoirs, Dams & Waterways	4,301,290	LIFESPAN	40.79	-	-	3,374,583	926,707	2.00	463,354	10.77	28.53	1,227,158	(763,805)
333.0	Waterwheels, Turbines & Generators	1,195,792	LIFESPAN	27.30	-	-	908,820	286,972	2.00	143,486	12.00	30.51	364,836	(221,350)
334.0	Accessory Electric Equipment	197,270	LIFESPAN	29.32	-	-	150,932	46,338	2.00	23,169	11.74	28.23	55,689	(32,520)
335.0	Misc. Power Plant Equipment	3,588	LIFESPAN	16.50	-	-	2,556	1,032	2.00	516	14.38	39.53	1,418	(902)
336.0	Roads, Railroads & Bridges	59,738	LIFESPAN	56.09	-	-	47,684	12,054	2.00	6,027	10.09	27.68	16,535	(10,508)
	TOTAL CONDIT	6,773,194		37.49	-	-	5,274,545	1,498,649	2.00	749,325	11.06	28.88	1,955,895	(1,206,571)
	CUTLER													
330.3	Water Rights	4,818	LIFESPAN	97.24	-	-	2,849	1,969	18.00	109	2.27	2.43	117	(8)
330.4	Flood Rights	90,968	LIFESPAN	73.81	-	-	49,830	41,138	18.00	2,285	2.51	2.43	2,211	75
331.0	Structures & Improvements	3,774,662	LIFESPAN	37.07	(0.67)	(25,290)	1,416,786	2,383,166	17.67	134,871	3.57	3.05	115,127	19,744
332.0	Reservoirs, Dams & Waterways	6,535,549	LIFESPAN	52.50	(0.97)	(63,395)	3,137,053	3,461,891	17.68	195,808	3.00	3.18	207,830	(12,022)
333.0	Waterwheels, Turbines & Generators	1,109,689	LIFESPAN	77.93	(1.79)	(19,863)	628,667	500,885	17.45	28,704	2.59	2.66	29,518	(814)
334.0	Accessory Electric Equipment	490,354	LIFESPAN	56.56	(2.22)	(10,886)	248,349	252,891	16.79	15,062	3.07	3.02	14,809	253
335.0	Misc. Power Plant Equipment	12,880	LIFESPAN	40.22	-	-	5,239	7,641	16.89	452	3.51	3.59	462	(10)
336.0	Roads, Railroads & Bridges	566,413	LIFESPAN	40.47	(0.90)	(5,098)	229,754	341,757	17.66	19,352	3.42	3.38	19,145	207
	TOTAL CUTLER	12,585,333		49.89	(0.99)	(124,532)	5,718,527	6,991,338	17.62	396,644	3.15	3.09	389,219	7,426
	EAGLE POINT													
330.2	Land Rights	12,122	LIFESPAN	68.50	-	-	11,954	168	19.00	9	0.07	6.82	827	(818)
331.0	Structures & Improvements	128,106	LIFESPAN	44.73	(0.72)	(922)	101,732	27,296	18.22	1,498	1.17	7.72	9,890	(8,392)
332.0	Reservoirs, Dams & Waterways	1,213,949	LIFESPAN	38.85	(1.04)	(12,625)	855,614	370,960	18.49	20,063	1.65	8.40	101,972	(81,909)
333.0	Waterwheels, Turbines & Generators	251,541	LIFESPAN	51.20	(1.91)	(4,804)	220,378	35,967	17.58	2,046	0.81	7.40	18,614	(16,568)
334.0	Accessory Electric Equipment	71,806	LIFESPAN	47.33	(2.36)	(1,695)	61,231	12,270	16.18	758	1.06	7.42	5,328	(4,570)
336.0	Roads, Railroads & Bridges	112,022	LIFESPAN	29.15	(0.96)	(1,075)	54,253	58,844	18.60	3,164	2.82	7.07	7,920	(4,756)
	TOTAL EAGLE POINT	1,789,546		40.94	(1.18)	(21,122)	1,305,162	505,506	18.26	27,538	1.54	8.08	144,550	(117,013)
	FOUNTAIN GREEN													
331.0	Structures & Improvements	23,248	LIFESPAN	50.52	(0.05)	(12)	25,643	(2,383)	4.06	-	0.00	2.35	546	(546)
332.0	Reservoirs, Dams & Waterways	318,833	LIFESPAN	20.28	(0.07)	(223)	302,861	16,195	3.90	4,153	1.30	2.40	7,652	(3,499)
333.0	Waterwheels, Turbines & Generators	24,279	LIFESPAN	76.23	(0.12)	(29)	27,731	(3,423)	4.06	-	0.00	2.33	566	(566)
334.0	Accessory Electric Equipment	77,660	LIFESPAN	22.49	(0.15)	(116)	77,423	353	1.91	185	0.24	2.35	1,825	(1,640)
335.0	Misc. Power Plant Equipment	2,086	LIFESPAN	23.17	-	-	2,065	21	2.67	8	0.38	2.33	49	(41)
336.0	Roads, Railroads & Bridges	1,261	LIFESPAN	78.54	(0.06)	(1)	1,440	(178)	4.04	-	0.00	2.30	29	(29)
	TOTAL FOUNTAIN GREEN	447,367		25.45	(0.09)	(381)	437,163	10,585	3.57	4,346	0.97	2.38	10,667	(6,321)

PACIFICORP

REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	GRANITE													
331.0	Structures & Improvements	136,038	LIFESPAN	61.39	(0.94)	(1,279)	68,444	68,873	23.39	2,945	2.16	2.41	3,279	(334)
332.0	Reservoirs, Dams & Waterways	3,547,761	LIFESPAN	33.38	(1.35)	(47,895)	842,764	2,752,892	23.58	116,747	3.29	3.49	123,817	(7,070)
333.0	Waterwheels, Turbines & Generators	675,594	LIFESPAN	47.35	(2.49)	(16,822)	281,168	411,248	23.42	17,560	2.60	2.76	18,646	(1,087)
334.0	Accessory Electric Equipment	182,517	LIFESPAN	43.29	(3.06)	(5,585)	71,446	116,656	22.27	5,238	2.87	2.89	5,275	(36)
335.0	Misc. Power Plant Equipment	1,410	LIFESPAN	58.17	-	-	688	722	22.07	33	2.32	2.56	36	(3)
	TOTAL GRANITE	4,543,320		36.70	(1.58)	(71,581)	1,264,510	3,350,391	23.50	142,522	3.14	3.32	151,053	(8,530)
	KLAMATH RIVER													
330.2	Land Rights	679,934	LIFESPAN	55.95	-	-	187,236	492,698	40.00	12,317	1.81	2.60	17,678	(5,361)
330.4	Flood Rights	253,539	LIFESPAN	76.16	-	-	116,555	136,984	40.00	3,425	1.35	2.07	5,248	(1,824)
331.0	Structures & Improvements	9,406,769	LIFESPAN	66.87	(1.61)	(151,449)	3,752,767	5,805,451	38.00	152,775	1.62	2.07	194,720	(41,945)
332.0	Reservoirs, Dams & Waterways	42,355,963	LIFESPAN	73.72	(2.30)	(974,187)	18,987,000	24,343,150	37.66	646,393	1.53	1.96	830,177	(183,784)
333.0	Waterwheels, Turbines & Generators	17,555,792	LIFESPAN	55.15	(4.30)	(754,899)	4,854,752	13,455,939	38.06	353,545	2.01	2.26	396,761	(43,215)
334.0	Accessory Electric Equipment	8,896,998	LIFESPAN	47.75	(5.13)	(456,416)	1,899,919	7,453,495	35.57	209,544	2.36	2.37	210,859	(1,314)
335.0	Misc. Power Plant Equipment	242,169	LIFESPAN	77.71	-	-	122,399	119,770	34.08	3,514	1.45	2.06	4,989	(1,474)
336.0	Roads, Railroads & Bridges	2,482,729	LIFESPAN	61.98	(2.13)	(52,882)	883,313	1,652,298	37.87	43,631	1.76	2.13	52,882	(9,251)
	TOTAL KLAMATH RIVER	81,873,893		65.64	(2.92)	(2,389,833)	30,803,941	53,459,785	37.58	1,425,145	1.74	2.09	1,713,314	(288,169)
	LAST CHANCE													
331.0	Structures & Improvements	435,028	LIFESPAN	38.76	(0.72)	(3,132)	196,952	241,208	18.61	12,961	2.98	2.98	12,964	(3)
332.0	Reservoirs, Dams & Waterways	848,524	LIFESPAN	38.87	(1.04)	(8,825)	384,215	473,134	18.66	25,356	2.99	3.05	25,880	(524)
333.0	Waterwheels, Turbines & Generators	1,119,220	LIFESPAN	39.07	(1.91)	(21,377)	510,502	630,095	18.49	34,078	3.04	2.87	32,122	1,956
334.0	Accessory Electric Equipment	244,432	LIFESPAN	28.98	(2.36)	(5,769)	78,609	171,592	17.90	9,586	3.92	2.91	7,113	2,473
336.0	Roads, Railroads & Bridges	65,287	LIFESPAN	42.09	(0.96)	(627)	31,749	34,165	18.59	1,838	2.81	2.77	1,808	29
	TOTAL LAST CHANCE	2,712,491		38.12	(1.46)	(39,729)	1,202,027	1,550,193	18.51	83,818	3.09	2.95	79,887	3,931
	LIFTON													
330.2	Land Rights	19,856	LIFESPAN	101.20	-	-	9,600	10,256	27.00	380	1.91	1.04	207	173
330.3	Water Rights	24,130	LIFESPAN	94.75	-	-	11,374	12,756	27.00	472	1.96	1.08	261	212
331.0	Structures & Improvements	1,228,591	LIFESPAN	72.23	(1.07)	(13,146)	461,335	780,402	26.34	29,628	2.41	1.36	16,709	12,919
332.0	Reservoirs, Dams & Waterways	7,734,971	LIFESPAN	56.19	(1.55)	(119,892)	2,301,294	5,553,569	26.45	209,965	2.71	1.64	126,854	83,111
333.0	Waterwheels, Turbines & Generators	3,331,559	LIFESPAN	32.11	(2.84)	(94,616)	291,244	3,134,931	26.25	119,426	3.58	1.20	39,979	79,447
334.0	Accessory Electric Equipment	264,766	LIFESPAN	51.20	(3.48)	(9,214)	59,390	214,590	25.08	8,556	3.23	1.72	4,554	4,002
335.0	Misc. Power Plant Equipment	2,910	LIFESPAN	56.09	-	-	1,027	1,883	24.74	76	2.62	1.95	57	19
336.0	Roads, Railroads & Bridges	182,783	LIFESPAN	32.72	(1.42)	(2,596)	19,740	165,639	26.43	6,267	3.43	1.07	1,956	4,311
	TOTAL LIFTON	12,789,566		51.16	(1.87)	(239,464)	3,155,004	9,874,026	26.36	374,770	2.93	1.49	190,575	184,196
	MERWIN													
330.2	Land Rights	300,510	LIFESPAN	111.67	-	-	209,891	90,619	40.00	2,265	0.75	1.15	3,456	(1,190)
330.5	Fish/Wildlife	212,280	LIFESPAN	113.50	-	-	149,612	62,668	40.00	1,567	0.74	1.14	2,420	(853)
331.0	Structures & Improvements	28,099,855	LIFESPAN	55.01	(1.63)	(458,028)	8,838,782	19,719,101	38.69	509,669	1.81	1.93	542,327	(32,658)
332.0	Reservoirs, Dams & Waterways	9,689,959	LIFESPAN	87.11	(2.36)	(228,683)	5,786,514	4,132,128	38.63	106,967	1.10	1.53	148,256	(41,290)
333.0	Waterwheels, Turbines & Generators	7,405,354	LIFESPAN	74.02	(4.32)	(319,911)	3,823,991	3,901,274	38.09	102,423	1.38	1.62	119,967	(17,544)
334.0	Accessory Electric Equipment	6,386,531	LIFESPAN	46.57	(5.20)	(332,100)	1,429,286	5,289,345	36.22	146,034	2.29	2.66	169,882	(23,848)
335.0	Misc. Power Plant Equipment	164,499	LIFESPAN	68.33	-	-	80,655	83,844	35.39	2,369	1.44	2.67	4,392	(2,023)
336.0	Roads, Railroads & Bridges	1,793,049	LIFESPAN	57.70	(2.18)	(39,088)	628,105	1,204,032	38.67	31,136	1.74	1.65	29,585	1,551
	TOTAL MERWIN	54,052,037		63.05	(2.55)	(1,377,810)	20,946,836	34,483,011	38.31	902,430	1.67	1.89	1,020,285	(117,856)
	NORTH UMPQUA													
331.0	Structures & Improvements	14,207,092	LIFESPAN	55.74	(1.29)	(183,271)	5,039,217	9,351,146	31.11	300,583	2.12	1.83	259,990	40,594
332.0	Reservoirs, Dams & Waterways	64,245,025	LIFESPAN	66.10	(2.14)	(1,374,844)	27,251,893	38,367,976	31.08	1,234,491	1.92	1.62	1,040,769	193,721
333.0	Waterwheels, Turbines & Generators	12,822,338	LIFESPAN	61.27	(3.41)	(437,242)	5,028,239	8,231,341	30.81	267,165	2.08	1.43	183,359	83,805
334.0	Accessory Electric Equipment	5,754,112	LIFESPAN	46.99	(4.15)	(238,796)	1,634,672	4,358,236	29.31	148,694	2.58	2.03	116,808	31,886
335.0	Misc. Power Plant Equipment	712,829	LIFESPAN	42.37	-	-	169,627	543,202	29.31	18,533	2.60	2.31	16,466	2,067
336.0	Roads, Railroads & Bridges	5,390,836	LIFESPAN	59.66	(1.72)	(92,722)	2,068,282	3,415,276	31.10	109,816	2.04	1.67	90,027	19,789
	TOTAL NORTH UMPQUA	103,132,232		62.51	(2.26)	(2,326,875)	41,191,930	64,267,177	30.94	2,079,282	2.02	1.66	1,707,420	371,862

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PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance $	[4] IOWA CURVE	[5] Average Life Yrs	[6] NET SALVAGE Percent %	[7] NET SALVAGE Amount $	[8] 12/31/2006 Book Reserve $	[9] Net Plant $	[10] Rem. Life Yrs	[11] Annual Amount $	[12] Deprec. Rate %	[13] Existing Rate %	[14] Annual Amount $	[15] Increase or (Decrease) $
	OLMSTED													
331.0	Structures & Improvements	176,221	LIFESPAN	77.40	(0.31)	(546)	128,318	48,449	9.72	4,984	2.83	2.10	3,701	1,284
334.0	Accessory Electric Equipment	22,177	LIFESPAN	17.31	(1.05)	(233)	7,960	14,450	9.59	1,507	6.79	5.76	1,277	229
335.0	Misc. Power Plant Equipment	3,274	LIFESPAN	38.06	-	-	2,010	1,264	9.35	135	4.13	3.37	110	25
336.0	Roads, Railroads & Bridges	3,547	LIFESPAN	23.35	(0.42)	(15)	1,680	1,882	9.85	191	5.39	4.84	172	19
	TOTAL OLMSTED	205,219		69.34	(0.39)	(794)	139,968	66,045	9.70	6,818	3.32	2.56	5,260	1,557
	PARIS													
331.0	Structures & Improvements	37,716	LIFESPAN	38.67	(0.05)	(19)	28,566	9,169	3.98	2,304	6.11	3.06	1,154	1,150
332.0	Reservoirs, Dams & Waterways	96,285	LIFESPAN	62.19	(0.07)	(67)	76,527	19,825	3.97	4,994	5.19	2.36	2,272	2,721
333.0	Waterwheels, Turbines & Generators	69,439	LIFESPAN	38.97	(0.12)	(83)	52,770	16,752	3.97	4,220	6.08	3.03	2,104	2,116
334.0	Accessory Electric Equipment	104,526	LIFESPAN	28.85	(0.15)	(157)	76,010	28,673	3.93	7,296	6.98	3.58	3,742	3,554
335.0	Misc. Power Plant Equipment	3,440	LIFESPAN	20.87	-	-	2,322	1,118	3.94	284	8.25	4.17	143	140
	TOTAL PARIS	311,406		42.52	(0.10)	(326)	236,195	75,537	3.96	19,097	6.13	3.02	9,416	9,681
	PIONEER													
330.2	Land Rights	9,247	LIFESPAN	133.42	-	-	7,180	2,067	24.00	86	0.93	1.13	104	(18)
330.3	Water Rights	110,806	LIFESPAN	133.50	-	-	86,051	24,755	24.00	1,031	0.93	1.13	1,252	(221)
331.0	Structures & Improvements	364,589	LIFESPAN	57.22	(0.94)	(3,427)	202,660	165,356	23.35	7,082	1.94	2.02	7,365	(283)
332.0	Reservoirs, Dams & Waterways	7,836,313	LIFESPAN	44.48	(1.35)	(105,790)	3,464,107	4,477,996	23.62	189,585	2.42	2.63	206,095	(16,510)
333.0	Waterwheels, Turbines & Generators	955,146	LIFESPAN	37.88	(2.49)	(23,783)	345,821	633,108	23.30	27,172	2.84	2.88	27,508	(336)
334.0	Accessory Electric Equipment	474,736	LIFESPAN	42.20	(3.06)	(14,527)	208,102	281,161	22.21	12,659	2.67	2.57	12,201	458
335.0	Misc. Power Plant Equipment	9,602	LIFESPAN	43.50	-	-	4,249	5,353	22.15	242	2.52	2.23	214	28
336.0	Roads, Railroads & Bridges	11,922	LIFESPAN	51.88	(1.25)	(149)	6,158	5,913	23.38	253	2.12	1.87	223	30
	TOTAL PIONEER	9,772,361		45.30	(1.51)	(147,676)	4,324,328	5,595,709	23.51	238,110	2.44	2.61	254,962	(16,852)
	PROSPECT # 1, 2 AND 4													
330.2	Land Rights	3,712	LIFESPAN	65.95	-	-	1,300	2,412	31.00	78	2.10	1.66	62	16
330.4	Flood Rights	3,167	LIFESPAN	100.50	-	-	1,451	1,716	31.00	55	1.75	1.12	35	20
331.0	Structures & Improvements	2,821,096	LIFESPAN	52.67	(1.24)	(34,982)	757,314	2,098,764	30.28	69,312	2.46	1.92	54,165	15,147
332.0	Reservoirs, Dams & Waterways	23,734,199	LIFESPAN	39.61	(1.80)	(427,216)	3,439,012	20,722,403	30.34	683,006	2.88	1.56	370,254	312,753
333.0	Waterwheels, Turbines & Generators	1,740,728	LIFESPAN	60.23	(3.30)	(57,444)	523,643	1,274,529	29.93	42,584	2.45	1.79	31,159	11,425
334.0	Accessory Electric Equipment	1,553,232	LIFESPAN	44.41	(4.02)	(62,440)	313,218	1,302,454	28.55	45,620	2.94	2.40	37,278	8,343
335.0	Misc. Power Plant Equipment	21,679	LIFESPAN	32.00	-	-	2,021	19,658	26.87	732	3.37	3.29	713	18
336.0	Roads, Railroads & Bridges	195,446	LIFESPAN	59.83	(1.66)	(3,244)	60,590	138,100	30.19	4,574	2.34	1.82	3,557	1,017
	TOTAL PROSPECT # 1, 2 AND 4	30,073,259		42.41	(1.95)	(585,326)	5,098,549	25,560,036	30.21	845,961	2.81	1.65	497,223	348,738
	PROSPECT #3													
331.0	Structures & Improvements	294,174	LIFESPAN	41.43	(0.40)	(1,177)	166,484	128,867	11.88	10,847	3.69	3.72	10,943	(96)
332.0	Reservoirs, Dams & Waterways	4,073,015	LIFESPAN	33.71	(0.58)	(23,623)	2,090,376	2,006,262	11.82	169,735	4.17	3.65	148,665	21,070
333.0	Waterwheels, Turbines & Generators	1,922,715	LIFESPAN	25.44	(1.08)	(20,765)	812,767	1,130,713	11.76	96,149	5.00	4.71	90,560	5,589
334.0	Accessory Electric Equipment	466,435	LIFESPAN	26.21	(1.35)	(6,297)	204,991	267,741	11.40	23,486	5.04	4.61	21,503	1,983
335.0	Misc. Power Plant Equipment	73,267	LIFESPAN	28.72	-	-	34,204	39,063	11.37	3,436	4.69	4.48	3,282	153
336.0	Roads, Railroads & Bridges	51,115	LIFESPAN	61.95	(0.54)	(276)	32,991	18,400	11.73	1,569	3.07	3.15	1,610	(41)
	TOTAL PROSPECT #3	6,880,721		31.38	(0.76)	(52,138)	3,341,813	3,591,046	11.77	305,221	4.44	4.02	276,563	28,658
	SANTA CLARA													
331.0	Structures & Improvements	141,402	LIFESPAN	43.37	(0.49)	(693)	79,348	62,747	13.71	4,577	3.24	3.34	4,723	(146)
332.0	Reservoirs, Dams & Waterways	971,149	LIFESPAN	45.36	(0.71)	(6,895)	556,908	421,136	13.75	30,628	3.15	3.24	31,465	(837)
333.0	Waterwheels, Turbines & Generators	426,169	LIFESPAN	34.44	(1.32)	(5,625)	210,680	221,114	13.66	16,187	3.80	3.78	16,109	78
334.0	Accessory Electric Equipment	625,750	LIFESPAN	27.36	(1.64)	(10,262)	259,289	376,723	13.27	28,389	4.54	4.34	27,158	1,232
335.0	Misc. Power Plant Equipment	7,952	LIFESPAN	39.02	-	-	4,248	3,704	13.12	282	3.55	3.53	281	2
336.0	Roads, Railroads & Bridges	2,720	LIFESPAN	91.96	(0.66)	(18)	1,919	819	13.61	60	2.21	2.21	60	0
	TOTAL SANTA CLARA	2,175,142		37.95	(1.08)	(23,494)	1,112,392	1,086,244	13.59	80,123	3.68	3.67	79,796	328

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PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
Account Number	Description	12/31/2006 Balance	IOWA CURVE	Average Life	Percent	NET SALVAGE Amount	12/31/2006 Book Reserve	Net Plant	Rem. Life	Annual Amount	Deprec. Rate	Existing Rate	Annual Amount	Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	SNAKE CREEK													
331.0	Structures & Improvements	59,731	LIFESPAN	44.94	(0.49)	(293)	37,292	22,732	13.68	1,662	2.78	2.90	1,732	(71)
332.0	Reservoirs, Dams & Waterways	423,401	LIFESPAN	45.05	(0.71)	(3,006)	264,860	161,547	13.72	11,775	2.78	3.12	13,210	(1,436)
333.0	Waterwheels, Turbines & Generators	263,034	LIFESPAN	36.67	(1.32)	(3,472)	148,241	118,265	13.63	8,677	3.30	3.44	9,048	(372)
334.0	Accessory Electric Equipment	155,893	LIFESPAN	37.05	(1.64)	(2,557)	88,791	69,659	13.48	5,168	3.31	3.38	5,269	(102)
335.0	Misc. Power Plant Equipment	2,086	LIFESPAN	33.62	-	-	1,113	973	13.12	74	3.56	3.68	77	(3)
	TOTAL SNAKE CREEK	904,145		41.20	(1.03)	(9,328)	540,297	373,176	13.65	27,355	3.03	3.24	29,337	(1,982)
	STAIRS													
331.0	Structures & Improvements	168,165	LIFESPAN	50.83	(0.72)	(1,211)	95,061	74,315	18.55	4,006	2.38	2.50	4,204	(198)
332.0	Reservoirs, Dams & Waterways	335,349	LIFESPAN	60.30	(1.04)	(3,488)	207,480	131,357	18.57	7,074	2.11	2.40	8,048	(975)
333.0	Waterwheels, Turbines & Generators	513,215	LIFESPAN	37.64	(1.91)	(9,802)	231,566	291,451	18.49	15,763	3.07	3.12	16,012	(250)
334.0	Accessory Electric Equipment	160,503	LIFESPAN	39.40	(2.36)	(3,788)	77,059	87,232	17.73	4,920	3.07	2.99	4,799	121
	TOTAL STAIRS	1,177,232		46.22	(1.55)	(18,289)	611,166	584,355	18.42	31,762	2.70	2.81	33,064	(1,301)
	SWIFT													
330.2	Land Rights	6,277,413	LIFESPAN	88.23	-	-	3,585,699	2,691,714	40.00	67,293	1.07	1.46	91,650	(24,357)
330.5	Fish/Wildlife	97,228	LIFESPAN	86.50	-	-	54,610	42,618	40.00	1,065	1.10	1.49	1,449	(383)
331.0	Structures & Improvements	6,284,936	LIFESPAN	68.37	(1.63)	(102,444)	2,811,753	3,575,627	38.59	92,657	1.47	1.65	103,701	(11,045)
332.0	Reservoirs, Dams & Waterways	37,633,791	LIFESPAN	85.84	(2.36)	(888,157)	21,423,252	17,098,696	38.67	442,170	1.17	1.65	620,958	(178,788)
333.0	Waterwheels, Turbines & Generators	11,242,321	LIFESPAN	71.26	(4.32)	(485,668)	5,382,040	6,345,949	38.13	166,429	1.48	1.74	195,616	(29,187)
334.0	Accessory Electric Equipment	3,819,175	LIFESPAN	47.41	(5.20)	(198,597)	894,173	3,123,599	36.02	86,718	2.27	1.89	72,182	14,536
335.0	Misc. Power Plant Equipment	560,313	LIFESPAN	78.26	-	-	303,426	256,887	35.20	7,298	1.30	1.68	9,413	(2,115)
336.0	Roads, Railroads & Bridges	395,145	LIFESPAN	57.95	(2.18)	(8,614)	134,718	269,041	38.68	6,956	1.76	2.20	8,693	(1,738)
	TOTAL SWIFT	66,310,322		79.50	(2.54)	(1,683,481)	34,589,671	33,404,132	38.52	870,586	1.31	1.66	1,103,663	(233,077)
	UPPER BEAVER													
330.3	Water Rights	1,047	LIFESPAN	123.50	-	-	879	168	24.00	7	0.67	1.40	15	(8)
331.0	Structures & Improvements	157,756	LIFESPAN	75.39	(0.94)	(1,483)	113,017	46,222	23.15	1,997	1.27	1.40	2,209	(212)
332.0	Reservoirs, Dams & Waterways	1,820,100	LIFESPAN	46.28	(1.35)	(24,571)	925,924	918,747	23.47	39,146	2.15	2.37	43,136	(3,991)
333.0	Waterwheels, Turbines & Generators	118,090	LIFESPAN	69.03	(2.49)	(2,940)	81,930	39,100	22.96	1,703	1.44	1.52	1,795	(92)
334.0	Accessory Electric Equipment	401,471	LIFESPAN	36.76	(3.06)	(12,285)	159,134	254,622	22.27	11,433	2.85	2.81	11,281	152
335.0	Misc. Power Plant Equipment	10,110	LIFESPAN	43.01	-	-	4,872	5,238	22.08	237	2.35	2.43	246	(8)
336.0	Roads, Railroads & Bridges	9,808	LIFESPAN	41.47	(1.25)	(123)	4,386	5,545	23.43	237	2.41	1.26	124	113
	TOTAL UPPER BEAVER	2,518,382		47.65	(1.64)	(41,402)	1,290,142	1,269,642	23.23	54,759	2.17	2.34	58,805	(4,046)
	VIVA NAUGHTON													
331.0	Structures & Improvements	388,940	LIFESPAN	52.89	(1.37)	(5,328)	140,151	254,117	33.01	7,698	1.98	2.01	7,818	(119)
332.0	Reservoirs, Dams & Waterways	103,507	LIFESPAN	52.72	(2.29)	(2,370)	37,099	68,778	33.01	2,084	2.01	2.11	2,184	(100)
333.0	Waterwheels, Turbines & Generators	497,438	LIFESPAN	51.78	(3.64)	(18,107)	174,602	340,943	32.71	10,423	2.10	1.98	9,849	574
334.0	Accessory Electric Equipment	159,117	LIFESPAN	51.26	(4.42)	(7,033)	58,287	107,863	30.87	3,494	2.20	2.05	3,262	232
335.0	Misc. Power Plant Equipment	20,594	LIFESPAN	51.29	-	-	7,565	13,029	30.79	423	2.05	2.07	426	(3)
	TOTAL VIVA NAUGHTON	1,169,596		52.15	(2.81)	(32,839)	417,704	784,731	32.55	24,122	2.06	2.01	23,539	583
	WALLOWA FALLS													
331.0	Structures & Improvements	111,286	LIFESPAN	28.66	(0.31)	(345)	68,715	42,916	9.80	4,379	3.94	4.11	4,574	(195)
332.0	Reservoirs, Dams & Waterways	895,584	LIFESPAN	28.07	(0.45)	(4,030)	547,035	352,579	9.83	35,868	4.00	5.43	48,630	(12,763)
333.0	Waterwheels, Turbines & Generators	58,400	LIFESPAN	51.43	(0.84)	(491)	45,089	13,802	9.58	1,441	2.47	3.48	2,032	(592)
334.0	Accessory Electric Equipment	1,412,947	LIFESPAN	19.65	(1.05)	(14,836)	671,332	756,451	9.52	79,459	5.62	5.16	72,908	6,551
336.0	Roads, Railroads & Bridges	310,959	LIFESPAN	21.42	(0.42)	(1,306)	156,916	155,349	9.84	15,788	5.08	5.60	17,414	(1,626)
	TOTAL WALLOWA FALLS	2,789,176		23.58	(0.75)	(21,008)	1,489,087	1,321,097	9.67	136,934	4.91	5.22	145,558	(8,624)

PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	WEBER													
331.0	Structures & Improvements	367,370	LIFESPAN	44.46	(0.49)	(1,800)	203,451	165,719	13.72	12,079	3.29	2.84	10,433	1,645
332.0	Reservoirs, Dams & Waterways	1,297,530	LIFESPAN	55.59	(0.71)	(9,212)	786,607	520,135	13.73	37,883	2.92	2.70	35,033	2,850
333.0	Waterwheels, Turbines & Generators	874,138	LIFESPAN	36.15	(1.32)	(11,539)	435,571	450,106	13.66	32,951	3.77	3.60	31,469	1,482
334.0	Accessory Electric Equipment	114,723	LIFESPAN	42.13	(1.64)	(1,881)	62,821	53,783	13.12	4,099	3.57	3.32	3,809	291
335.0	Misc. Power Plant Equipment	21,696	LIFESPAN	35.38	-	-	10,663	11,033	13.17	838	3.86	3.69	801	37
336.0	Roads, Railroads & Bridges	39,857	LIFESPAN	26.01	(0.66)	(263)	14,879	25,241	13.78	1,832	4.60	4.41	1,758	74
	TOTAL WEBER	2,715,314		46.66	(0.91)	(24,696)	1,513,992	1,226,018	13.68	89,681	3.30	3.07	83,303	6,379
	YALE													
330.2	Land Rights	761,580	LIFESPAN	92.19	-	-	445,383	316,197	40.00	7,905	1.04	1.42	10,814	(2,910)
331.0	Structures & Improvements	6,468,171	LIFESPAN	66.49	(1.63)	(105,431)	2,746,338	3,827,264	38.61	99,126	1.53	1.71	110,606	(11,479)
332.0	Reservoirs, Dams & Waterways	26,160,156	LIFESPAN	87.60	(2.36)	(617,380)	15,389,387	11,388,149	38.64	294,724	1.13	1.58	413,330	(118,606)
333.0	Waterwheels, Turbines & Generators	10,498,920	LIFESPAN	66.07	(4.32)	(453,553)	4,477,146	6,475,327	38.19	169,556	1.61	1.96	205,779	(36,223)
334.0	Accessory Electric Equipment	3,676,080	LIFESPAN	50.53	(5.20)	(191,156)	1,018,678	2,848,558	35.96	79,215	2.15	2.27	83,447	(4,232)
335.0	Misc. Power Plant Equipment	548,875	LIFESPAN	83.18	-	-	309,403	239,472	35.11	6,821	1.24	1.55	8,508	(1,687)
336.0	Roads, Railroads & Bridges	1,383,555	LIFESPAN	51.12	(2.18)	(30,161)	331,554	1,082,162	38.73	27,941	2.02	2.37	32,790	(4,849)
	TOTAL YALE	49,497,337		76.52	(2.82)	(1,397,682)	24,717,889	26,177,130	38.33	685,288	1.38	1.75	865,274	(179,987)
	Hydro Decommissioning Reserve					(29,925,500)	10,515,490	19,410,010	5.43	3,574,779			0	3,574,779
	TOTAL HYDRAULIC PRODUCTION	507,940,786		62.25	(8.18)	(41,564,014)	225,954,434	323,550,366	32.16	14,347,241	2.82	2.42	12,314,551	2,032,691
OTHER PRODUCTION PLANT														
	HERMISTON													
341.00	Structures & Improvements	12,474,621	LIFESPAN	34.67	(2.92)	(364,259)	2,799,193	10,039,687	24.96	402,231	3.22	3.00	374,239	27,992
342.00	Fuel Holders, Producers & Access.	25,322	LIFESPAN	34.81	(2.81)	(712)	5,958	20,076	24.31	826	3.26	3.17	803	23
343.00	Prime Movers	101,602,451	LIFESPAN	33.51	(3.03)	(3,078,554)	21,732,563	82,948,442	24.32	3,410,709	3.36	2.94	2,987,112	423,597
344.00	Generators	39,840,392	LIFESPAN	34.72	(2.89)	(1,151,387)	8,965,069	32,026,710	24.86	1,288,283	3.23	2.94	1,171,308	116,975
345.00	Accessory Electric Equipment	9,069,631	LIFESPAN	35.42	(2.90)	(263,019)	2,133,364	7,199,286	24.93	288,780	3.18	2.94	266,647	22,133
346.00	Misc. Power Plant Equipment	497,343	LIFESPAN	35.46	(2.91)	(14,473)	117,069	394,747	24.96	15,815	3.18	2.94	14,622	1,193
	TOTAL HERMISTON	163,509,760		34.01	(2.98)	(4,872,404)	35,753,216	132,628,948	24.54	5,406,644	3.31	2.94	4,814,730	591,914
	LITTLE MOUNTAIN													
341.00	Structures & Improvements	217,599	LIFESPAN	32.74	(2.41)	(5,244)	165,868	56,975	3.00	18,992	8.73	3.02	6,571	12,420
342.00	Fuel Holders, Producers & Access.	121,339	LIFESPAN	39.39	(2.41)	(2,924)	94,307	29,956	3.00	9,985	8.23	2.60	3,155	6,831
343.00	Prime Movers	2,270,377	LIFESPAN	17.57	(2.41)	(54,716)	1,559,640	765,453	3.00	255,151	11.24	3.37	76,512	178,639
344.00	Generators	2,389,789	LIFESPAN	8.42	(2.41)	(57,594)	1,237,141	1,210,242	3.00	403,414	16.88	3.75	89,617	313,797
345.00	Accessory Electric Equipment	215,728	LIFESPAN	32.10	(2.41)	(5,199)	164,080	56,847	3.00	18,949	8.78	3.26	7,033	11,916
346.00	Misc. Power Plant Equipment	11,813	LIFESPAN	39.50	(2.41)	(285)	9,184	2,914	3.00	971	8.22	2.78	328	643
	TOTAL LITTLE MOUNTAIN	5,226,645		15.17	(2.41)	(125,962)	3,230,220	2,122,387	3.00	707,462	13.54	3.51	183,216	524,246
	GADSBY PEAKER UNIT 4-6													
341.00	Structures & Improvements	4,121,643	LIFESPAN	25.13	(1.40)	(57,703)	667,826	3,511,520	20.98	167,375	4.06	4.06	167,339	36
342.00	Fuel Holders, Producers & Access.	2,257,625	LIFESPAN	25.01	(1.35)	(30,478)	391,193	1,896,910	20.51	92,487	4.10	4.06	91,660	828
343.00	Prime Movers	50,628,073	LIFESPAN	24.87	(1.53)	(774,610)	8,555,037	42,847,646	20.51	2,089,110	4.13	4.06	2,055,500	33,610
344.00	Generators	15,873,643	LIFESPAN	25.40	(1.38)	(219,056)	2,751,029	13,341,670	20.90	638,357	4.02	4.06	644,470	(6,112)
345.00	Accessory Electric Equipment	5,009,382	LIFESPAN	25.16	(1.39)	(69,630)	821,429	4,257,583	20.95	203,226	4.06	4.06	203,381	(155)
	TOTAL GADSBY PEAKER UNIT 4-6	77,890,366		25.01	(1.48)	(1,151,477)	13,186,514	65,855,329	20.64	3,190,555	4.10	4.06	3,162,349	28,206

PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	CURRANT CREEK													
341.0	Structures & Improvements	28,120,692	LIFESPAN	35.16	(3.29)	(925,171)	939,117	28,106,746	33.66	835,019	2.97	3.08	866,117	(31,098)
342.0	Fuel Holders, Producers & Access.	27,004,653	LIFESPAN	33.37	(3.09)	(834,444)	901,846	26,937,251	31.87	845,223	3.13	3.08	831,743	13,479
343.0	Prime Movers	189,446,539	LIFESPAN	33.17	(3.38)	(6,403,293)	6,326,744	189,523,088	31.67	5,984,310	3.16	3.08	5,834,953	149,356
344.0	Generators	63,543,466	LIFESPAN	35.05	(3.24)	(2,058,808)	2,122,093	63,480,181	33.55	1,892,107	2.98	3.08	1,957,139	(65,032)
345.0	Accessory Electric Equipment	17,594,823	LIFESPAN	35.30	(3.26)	(573,591)	587,596	17,580,818	33.80	520,143	2.96	3.08	541,921	(21,778)
346.0	Misc. Power Plant Equipment	3,131,649	LIFESPAN	35.44	(3.27)	(102,405)	104,584	3,129,470	33.94	92,206	2.94	3.08	96,455	(4,249)
	TOTAL CURRANT CREEK	328,841,822		33.86	(3.31)	(10,897,712)	10,981,980	328,757,554	32.36	10,169,007	3.09	3.08	10,128,328	40,679
	FOOTE CREEK													
343.0	Prime Movers	30,513,722	LIFESPAN	26.09	(0.95)	(289,880)	9,756,910	21,046,692	17.59	1,196,515	3.92	4.34	1,324,296	(127,781)
344.0	Generators	3,542,319	LIFESPAN	26.42	(0.82)	(29,047)	1,131,446	2,439,920	17.92	136,156	3.84	4.34	153,737	(17,580)
345.0	Accessory Electric Equipment	2,210,801	LIFESPAN	26.46	(0.82)	(18,129)	706,148	1,522,782	17.96	84,787	3.84	4.34	95,949	(11,161)
	TOTAL FOOTE CREEK	36,266,842		26.14	(0.93)	(337,056)	11,594,504	25,009,394	17.64	1,417,458	3.91	4.34	1,573,981	(156,523)
	SOLAR GENERATING													
344.00	Generators - Utah	36,389	SQ	15.00	-	-	26,743	9,646	3.00	3,215	8.84	12.03	4,378	(1,162)
344.00	Generators - Oregon	56,322	SQ	15.00	-	-	43,407	12,915	4.00	3,229	5.73	7.90	4,449	(1,221)
344.00	Generators - Wyoming	55,087	SQ	15.00	-	-	40,239	14,848	3.00	4,949	8.98	11.92	6,566	(1,617)
	Total Solar Generating	147,798		15.00	-	-	110,389	37,409	3.38	11,393	7.71	10.42	15,393	(4,000)
	LEANING JUNIPER													
341.00	Structures & Improvements	4,531,700	LIFESPAN	25.47	(0.52)	(23,565)	68,888	4,486,377	24.97	179,671	3.96	4.02	182,174	(2,504)
343.00	Prime Movers	170,860,951	LIFESPAN	24.87	(0.71)	(1,213,113)	2,597,309	169,476,755	24.37	6,954,319	4.07	4.02	6,868,610	85,709
346.00	Misc. Power Plant Equipment	80,000	LIFESPAN	25.47	(0.52)	(416)	1,216	79,200	24.97	3,172	3.96	4.02	3,216	(44)
	TOTAL LEANING JUNIPER	175,472,651		24.89	(0.71)	(1,237,094)	2,667,413	174,042,332	24.39	7,137,162	4.07	4.02	7,054,001	83,161
	TOTAL DEPRECIABLE OTHER PRODUCTION	787,355,884		30.53	(2.37)	(18,621,705)	77,524,236	728,453,353	26.92	28,039,681	3.56	3.42	26,931,998	1,107,683
340.30	Water Rights - Lakeside	14,529,040												
340.30	Water Rights - Currant Creek	2,890,419					351							
	TOTAL OTHER PRODUCTION	804,775,343		29.87	(2.31)	(18,621,705)	77,524,587	728,453,353	26.34	28,039,681	3.48	3.35	26,931,998	1,107,683
	TOTAL DEPRECIABLE PRODUCTION PLANT	5,982,632,583		48.52	(7.05)	(422,047,108)	2,665,465,622	3,739,214,069	29.70	136,563,972	2.28	3.11	186,241,528	(49,677,556)
344.00	Generators - Lakeside	328,000,000		35.00	(3.34)						2.95			
	MARENGO WIND	258,000,000		24.87	(1.00)		-				4.06			
	WASHINGTON WIND	224,000,000		24.87	(1.00)		-				4.06			
TRANSMISSION PLANT														
350.20	Rights-of-Way	61,181,203	R5	70.00	-	-	22,836,242	38,344,961	45.23	847,777	1.39	1.40	856,537	(8,760)
352.00	Structures & Improvements	55,260,234	S1	75.00	(5.00)	(2,763,012)	13,462,144	44,561,102	58.51	761,598	1.38	1.67	922,846	(161,248)
353.00	Station Equipment	907,682,638	R1.5	58.00	(10.00)	(90,768,264)	229,339,714	769,111,188	45.37	16,951,977	1.87	1.79	16,247,519	704,458
353.70	Supervisory Equipment	55,509,184	R2	25.00	-	-	21,659,919	33,849,265	15.75	2,149,160	3.87	5.15	2,858,723	(709,563)
354.00	Towers & Fixtures	380,678,705	R5	65.00	(10.00)	(38,067,871)	155,536,102	263,210,474	42.12	6,249,062	1.64	2.13	8,108,456	(1,859,395)
355.00	Poles & Fixtures	508,938,637	R2.5	52.00	(50.00)	(254,469,319)	229,961,076	533,446,880	37.15	14,359,270	2.82	2.56	13,028,829	1,330,441
356.00	OH Conductors & Devices	630,352,557	R4	60.00	(45.00)	(283,658,651)	329,205,696	584,805,512	39.52	14,797,710	2.35	2.13	13,426,509	1,371,201
356.20	Clearing	30,355,853	S6	65.00	-	-	15,493,225	14,862,628	33.55	442,999	1.46	1.40	424,982	18,017
357.00	UG Conduit	3,277,188	R2	60.00	(70.00)	(2,294,032)	698,920	4,872,300	52.87	92,156	2.81	3.15	103,231	(11,075)
358.00	UG Conductors & Devices	7,274,658	R2	60.00	(40.00)	(2,909,863)	1,310,142	8,874,379	52.68	168,458	2.32	2.38	173,137	(4,679)
359.00	Roads & Trails	11,494,522	R5	70.00	-	-	2,739,111	8,755,411	54.19	161,569	1.41	1.42	163,222	(1,653)
	Total Transmission Plant	2,652,005,379		58.41	(25.45)	(674,931,010)	1,022,242,291	2,304,694,098	41.52	56,981,736	2.15	2.12	56,313,992	667,744

Attachment to Response to KU KIUC-1 Question No. 44(a)
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PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] NET SALVAGE Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
DISTRIBUTION PLANT														
	OREGON - DISTRIBUTION													
360.20	Rights-of-Way	3,556,253	R4	50.00	-	-	2,068,184	1,488,069	20.35	73,124	2.06	1.70	60,456	12,667
361.00	Structures & Improvements	12,345,312	S0.5	60.00	(5.00)	(617,266)	2,664,078	10,298,500	46.12	223,298	1.81	1.83	225,919	(2,621)
362.00	Station Equipment	160,587,683	R1	52.00	(15.00)	(24,088,152)	43,082,170	141,593,665	39.30	3,602,892	2.24	2.25	3,613,223	(10,331)
362.70	Supervisory Equipment	2,779,659	R2.5	23.00	-	-	1,326,330	1,453,329	11.65	124,749	4.49	4.05	112,576	12,173
364.00	Poles, Towers & Fixtures	282,793,465	R1.5	45.00	(125.00)	(353,491,831)	166,308,811	469,976,485	32.78	14,337,294	5.07	4.33	12,244,957	2,092,337
365.00	OH Conductors & Devices	210,301,551	R1.5	50.00	(90.00)	(189,271,396)	113,194,213	286,378,734	35.36	8,098,946	3.85	3.07	6,456,258	1,642,688
366.00	UG Conduit	75,474,348	R2.5	60.00	(60.00)	(45,284,609)	24,056,265	96,702,692	47.60	2,031,569	2.69	2.78	2,098,187	(66,618)
367.00	UG Conductors & Devices	133,175,353	R2.5	52.00	(60.00)	(79,905,212)	48,322,155	164,758,410	39.75	4,144,866	3.11	2.26	3,009,763	1,135,103
368.00	Line Transformers	340,095,762	R1.5	40.00	(25.00)	(85,023,941)	127,185,567	297,934,136	27.54	10,818,233	3.18	2.62	8,910,509	1,907,724
369.10	Overhead Services	60,741,141	R1.5	55.00	(25.00)	(15,185,285)	17,228,260	58,698,166	41.94	1,399,575	2.30	2.00	1,214,823	184,752
369.20	Underground Services	122,060,821	R4	55.00	(40.00)	(48,824,328)	31,625,019	139,260,130	44.34	3,140,734	2.57	1.78	2,172,683	968,051
370.00	Meters	58,792,161	R2.5	26.00	(2.00)	(1,175,843)	27,951,133	32,016,871	13.63	2,349,000	4.00	3.57	2,098,880	250,120
371.00	I.O.C.P.	2,433,995	S1	25.00	(60.00)	(1,460,397)	2,375,046	1,519,346	9.43	161,118	6.62	3.94	95,899	65,219
373.00	Street Lighting & Signal Systems	19,600,663	R1	40.00	(35.00)	(6,860,232)	6,634,747	19,826,148	29.49	672,301	3.43	2.76	540,978	131,322
	TOTAL OREGON - DISTRIBUTION	1,484,738,167		47.19	(57.33)	(851,188,492)	614,021,978	1,721,904,681	34.56	51,177,698	3.45	2.89	42,855,111	8,322,587
	WASHINGTON - DISTRIBUTION													
360.20	Rights-of-Way	297,931	R4	50.00	-	-	171,241	126,690	22.12	5,727	1.92	1.85	5,512	216
361.00	Structures & Improvements	2,166,412	R1.5	60.00	(5.00)	(108,321)	481,714	1,793,019	46.56	38,510	1.78	1.86	40,295	(1,785)
362.00	Station Equipment	41,804,262	R1.5	53.00	(20.00)	(8,360,852)	12,770,364	37,394,750	39.90	937,212	2.24	2.44	1,020,024	(82,812)
362.70	Supervisory Equipment	755,561	R4	22.00	-	-	460,884	294,677	8.91	33,073	4.38	4.70	35,511	(2,439)
364.00	Poles, Towers & Fixtures	78,881,062	R1.5	50.00	(110.00)	(86,769,168)	36,539,469	129,110,761	38.99	3,311,381	4.20	5.20	4,101,815	(790,434)
365.00	OH Conductors & Devices	53,162,424	R1.5	60.00	(80.00)	(42,529,939)	23,423,083	72,269,280	45.45	1,590,083	2.99	2.44	1,297,163	292,920
366.00	UG Conduit	13,724,890	R4	40.00	(105.00)	(14,411,135)	8,624,656	19,511,369	28.11	694,108	5.06	1.73	237,441	456,667
367.00	UG Conductors & Devices	17,451,853	R4	45.00	(35.00)	(6,108,149)	6,440,533	17,119,469	32.77	522,413	2.99	2.38	415,354	107,059
368.00	Line Transformers	82,326,435	R2.5	42.00	(25.00)	(20,581,609)	35,001,701	67,906,343	27.74	2,447,958	2.97	2.15	1,770,018	677,939
369.10	Overhead Services	14,707,741	R2.5	50.00	(35.00)	(5,147,709)	6,484,440	13,371,010	33.79	395,709	2.69	2.14	314,746	80,963
369.20	Underground Services	25,030,814	R4	55.00	(40.00)	(10,012,326)	6,977,435	28,065,705	44.07	636,844	2.54	1.97	493,107	143,737
370.00	Meters	13,639,079	R2.5	26.00	(1.00)	(136,391)	7,487,165	6,288,305	12.25	513,331	3.76	3.53	481,459	31,872
371.00	I.O.C.P.	532,439	L0	30.00	(50.00)	(266,220)	349,745	448,914	17.22	26,069	4.90	3.64	19,381	6,689
373.00	Street Lighting & Signal Systems	3,570,237	R3	40.00	(35.00)	(1,249,583)	1,889,028	2,930,792	24.30	120,609	3.38	3.16	112,819	7,789
	TOTAL WASHINGTON - DISTRIBUTION	348,051,140		48.64	(56.22)	(195,681,400)	147,101,458	396,631,082	35.57	11,273,026	3.24	2.97	10,344,646	928,380
	WYOMING - DISTRIBUTION													
360.20	Rights-of-Way	3,279,218	R4	50.00	-	-	1,624,869	1,654,349	27.00	61,272	1.87	1.82	59,682	1,590
361.00	Structures & Improvements	5,254,324	R2	55.00	(10.00)	(525,432)	1,671,341	4,108,415	40.24	102,098	1.94	2.27	119,273	(17,175)
362.00	Station Equipment	89,706,244	S1	50.00	(15.00)	(13,455,937)	33,479,090	69,683,091	34.94	1,994,364	2.22	2.22	1,991,479	2,886
362.70	Supervisory Equipment	2,756,251	R4	20.00	-	-	1,949,825	806,426	6.87	117,384	4.26	3.89	107,218	10,166
364.00	Poles, Towers & Fixtures	87,457,268	R1	50.00	(120.00)	(104,948,722)	43,825,586	148,580,404	39.43	3,768,207	4.31	4.30	3,760,663	7,545
365.00	OH Conductors & Devices	80,698,290	R1	55.00	(40.00)	(32,279,316)	29,505,172	83,472,434	41.67	2,003,178	2.48	2.54	2,049,737	(46,558)
366.00	UG Conduit	12,960,734	R3	42.00	(70.00)	(9,072,514)	6,697,820	15,335,428	30.15	508,638	3.92	2.54	329,203	179,435
367.00	UG Conductors & Devices	37,363,488	R5	40.00	(50.00)	(18,681,744)	20,952,678	35,092,554	26.12	1,343,513	3.60	2.50	934,087	409,426
368.00	Line Transformers	70,949,860	R1	38.00	(20.00)	(14,189,972)	25,890,532	59,249,300	27.27	2,172,692	3.06	2.41	1,709,892	462,800
369.10	Overhead Services	12,968,757	R2	60.00	(20.00)	(2,593,751)	3,800,983	11,761,525	46.40	253,481	1.95	2.15	278,828	(25,347)
369.20	Underground Services	20,907,358	S5	45.00	(40.00)	(8,362,943)	7,893,639	21,376,662	33.74	633,570	3.03	2.35	491,323	142,247
370.00	Meters	14,692,217	R2.5	26.00	(5.00)	(734,611)	8,054,282	7,372,546	13.40	550,190	3.74	3.25	477,497	72,693
371.00	I.O.C.P.	883,657	S-.5	20.00	(60.00)	(530,194)	1,021,255	392,596	6.59	59,575	6.74	3.87	34,198	25,377
373.00	Street Lighting & Signal Systems	8,127,459	R0.5	50.00	(45.00)	(3,657,357)	2,864,923	8,919,893	38.72	230,369	2.83	2.72	221,067	9,302
	TOTAL WYOMING - DISTRIBUTION	448,005,125		47.02	(46.66)	(209,032,493)	189,231,995	467,805,623	34.35	13,798,530	3.08	2.80	12,564,145	1,234,386

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] NET SALVAGE Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	CALIFORNIA - DISTRIBUTION													
360.20	Rights-of-Way	913,753	R4	55.00	-	-	489,829	423,924	20.10	21,091	2.31	1.55	14,163	6,928
361.00	Structures & Improvements	1,462,927	R4	55.00	(5.00)	(73,146)	409,919	1,126,154	37.62	29,935	2.05	2.02	29,551	384
362.00	Station Equipment	13,225,518	R1	55.00	(25.00)	(3,306,380)	3,402,066	13,129,832	41.60	315,621	2.39	2.22	293,606	22,014
362.70	Supervisory Equipment	218,353	R5	20.00	-	-	134,029	84,324	5.47	15,416	7.06	4.35	9,498	5,917
364.00	Poles, Towers & Fixtures	45,277,615	R1.5	50.00	(125.00)	(56,597,019)	20,751,425	81,123,209	37.94	2,138,197	4.72	3.68	1,666,216	471,981
365.00	OH Conductors & Devices	31,322,720	S-.5	65.00	(95.00)	(29,756,584)	10,556,542	50,522,762	51.70	977,229	3.12	2.52	789,333	187,897
366.00	UG Conduit	14,473,726	R5	50.00	(60.00)	(8,684,236)	6,032,369	17,125,593	34.58	495,246	3.42	2.52	364,738	130,508
367.00	UG Conductors & Devices	15,835,050	S6	45.00	(135.00)	(21,377,318)	10,828,872	26,383,496	29.50	894,356	5.65	2.14	338,870	555,486
368.00	Line Transformers	41,867,181	R5	50.00	(45.00)	(18,840,231)	18,113,872	42,593,540	32.34	1,317,054	3.15	3.76	1,574,206	(257,152)
369.10	Overhead Services	7,434,428	R1	55.00	(120.00)	(8,921,314)	2,670,583	13,685,159	44.37	308,433	4.15	2.27	168,762	139,671
369.20	Underground Services	12,325,121	R4	60.00	(100.00)	(12,325,121)	3,925,386	20,724,856	48.69	425,649	3.45	1.87	230,480	195,169
370.00	Meters	3,937,749	R2.5	26.00	(4.00)	(157,510)	1,697,125	2,398,134	13.24	181,128	4.60	3.49	137,427	43,701
371.00	I.O.C.P.	270,014	L0	25.00	(95.00)	(256,513)	198,296	328,231	13.85	23,699	8.78	4.81	12,988	10,711
373.00	Street Lighting & Signal Systems	683,185	R3	35.00	(70.00)	(478,230)	522,522	638,893	16.36	39,052	5.72	4.14	28,284	10,768
	TOTAL CALIFORNIA - DISTRIBUTION	189,247,340		52.16	(84.95)	(160,773,601)	79,732,835	270,288,106	38.47	7,182,106	3.80	2.99	5,658,122	1,523,984
	UTAH - DISTRIBUTION													
360.20	Rights-of-Way	6,311,184	R4	50.00	-	-	1,698,470	4,612,714	36.84	125,209	1.98	1.82	114,864	10,346
361.00	Structures & Improvements	25,067,428	R2	60.00	-	-	3,888,935	21,178,493	50.90	416,080	1.66	1.87	468,761	(52,680)
362.00	Station Equipment	304,454,487	S-.5	45.00	(10.00)	(30,445,449)	51,376,232	283,523,704	38.25	7,412,384	2.43	1.84	5,601,963	1,810,422
362.70	Supervisory Equipment	11,365,762	R3	25.00	-	-	4,497,908	6,867,854	15.33	448,001	3.94	4.31	489,864	(41,863)
363.00	Storage Battery Equipment	1,393,066	SQ	15.00	-	-	332,426	1,060,640	11.50	92,230	6.62	10.00	139,307	(47,077)
363.70	Storage Battery - Supervisory Eqpt.	64,739	SQ	15.00	-	-	15,449	49,290	11.50	4,286	6.62	4.31	2,790	1,496
364.00	Poles, Towers & Fixtures	257,266,586	S2	40.00	(105.00)	(270,129,915)	163,361,280	364,035,221	27.88	13,057,217	5.08	3.83	9,853,310	3,203,907
365.00	OH Conductors & Devices	180,757,899	R0.5	42.00	(75.00)	(135,568,424)	69,502,935	246,823,388	32.98	7,484,032	4.14	2.72	4,916,615	2,567,418
366.00	UG Conduit	133,152,468	R2	60.00	(70.00)	(93,206,728)	44,460,751	181,898,445	48.48	3,752,031	2.82	2.38	3,169,029	583,002
367.00	UG Conductors & Devices	382,825,808	R2	50.00	(45.00)	(172,271,614)	126,337,548	428,759,874	38.87	11,030,612	2.88	2.16	8,269,037	2,761,574
368.00	Line Transformers	323,264,851	R0.5	45.00	(15.00)	(48,489,728)	73,873,762	297,880,817	36.26	8,215,136	2.54	2.31	7,467,418	747,718
369.00	Services	164,752,028	S5	55.00	(20.00)	(32,950,406)	35,730,211	161,972,223	45.28	3,577,125	2.17	2.25	3,706,921	(129,796)
370.00	Meters	84,295,977	R2.5	26.00	(5.00)	(4,214,799)	43,416,076	45,094,700	13.53	3,332,942	3.95	3.32	2,798,626	534,315
371.00	I.O.C.P.	4,590,137	L0	25.00	(70.00)	(3,213,096)	2,702,223	5,101,010	16.53	308,591	6.72	4.57	209,769	98,822
372.00	Leased Property on Customers' Premises	44,785	L0	30.00	-	-	25,956	18,829	13.00	1,448	3.23	2.60	1,164	284
373.00	Street Lighting & Signal Systems	24,495,522	R0.5	25.00	(20.00)	(4,899,104)	9,698,417	19,696,209	16.93	1,163,391	4.75	5.69	1,393,795	(230,404)
	TOTAL UTAH - DISTRIBUTION	1,904,102,727		45.88	(41.77)	(795,389,262)	630,918,579	2,068,573,410	36.04	60,420,715	3.17	2.55	48,603,233	11,817,482
	IDAHO - DISTRIBUTION													
360.20	Rights-of-Way	959,335	R4	50.00	-	-	340,548	618,787	36.84	16,797	1.75	1.82	17,460	(663)
361.00	Structures & Improvements	786,125	R2	60.00	-	-	160,870	625,255	50.90	12,284	1.56	1.87	14,701	(2,417)
362.00	Station Equipment	19,228,384	S-.5	45.00	(10.00)	(1,922,838)	4,280,005	16,871,217	38.25	441,078	2.29	1.84	353,802	87,275
362.70	Supervisory Equipment	349,588	R3	25.00	-	-	182,486	167,102	15.33	10,900	3.12	4.31	15,067	(4,167)
364.00	Poles, Towers & Fixtures	52,811,012	S2	40.00	(90.00)	(47,529,911)	40,996,953	59,343,970	27.88	2,128,550	4.03	3.83	2,022,662	105,888
365.00	OH Conductors & Devices	32,156,819	R0.5	42.00	(35.00)	(11,254,887)	12,581,610	30,830,096	32.98	934,812	2.91	2.72	874,665	60,146
366.00	UG Conduit	6,316,271	R2	60.00	(45.00)	(2,842,322)	2,372,843	6,785,750	48.48	139,970	2.22	2.38	150,327	(10,357)
367.00	UG Conductors & Devices	20,797,084	R2	50.00	(15.00)	(3,119,563)	7,180,011	16,736,636	38.87	430,580	2.07	2.16	449,217	(18,637)
368.00	Line Transformers	58,088,551	R0.5	45.00	(10.00)	(5,808,855)	16,748,608	47,148,798	36.26	1,300,298	2.24	2.31	1,341,846	(41,548)
369.00	Services	22,842,503	S5	55.00	(15.00)	(3,426,375)	6,262,197	20,006,681	45.28	441,844	1.93	2.25	513,956	(72,113)
370.00	Meters	13,729,088	R2.5	26.00	(3.00)	(411,873)	7,034,534	7,106,427	15.23	466,607	3.40	3.32	455,806	10,801
371.00	I.O.C.P.	159,013	L0	25.00	(45.00)	(71,556)	105,320	125,249	16.41	7,632	4.80	4.57	7,267	366
372.00	Leased Property on Customers' Premises	4,873	L0	30.00	-	-	3,725	1,148	13.00	88	1.81	2.60	127	(38)
373.00	Street Lighting & Signal Systems	553,612	R0.5	25.00	(50.00)	(276,806)	361,403	469,015	16.93	27,703	5.00	5.69	31,501	(3,797)
	TOTAL IDAHO - DISTRIBUTION	228,782,258		43.92	(33.51)	(76,664,985)	98,611,113	206,836,130	34.05	6,359,143	2.78	2.73	6,248,403	110,740
	TOTAL DISTRIBUTION PLANT	4,602,926,757		46.78	(49.72)	(2,288,730,233)	1,759,617,958	5,132,039,032	35.36	150,211,219	3.26	2.74	126,273,661	23,937,558

Attachment to Response to KU KIUC-1 Question No. 44(a)
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Spanos

PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
GENERAL PLANT														
	OREGON - GENERAL													
390.00	Structures & Improvements	56,989,775	R1.5	50.00	(10.00)	(5,698,978)	11,084,283	51,604,470	40.92	1,261,106	2.21	2.32	1,322,163	(61,056)
391.10	Mainframe Computers	4,039,625	L2	5.00	-	-	1,721,348	2,318,277	2.81	825,010	20.42	26.85	1,084,639	(259,630)
392.10	Transp. Eqpt. - Light Trucks & Vans	9,408,666	R3	12.00	10.00	940,867	3,302,354	5,165,445	7.20	717,423	7.63	7.12	669,897	47,526
392.50	Transp. Eqpt. - Medium Trucks	9,772,613	S2	18.00	10.00	977,261	2,447,336	6,348,016	12.86	493,625	5.05	6.65	649,879	(156,254)
392.90	Transp. Eqpt. - Trailers	2,653,228	S1	35.00	15.00	397,984	599,886	1,655,358	25.44	65,069	2.45	2.19	58,106	6,963
396.30	Light Power Operated Equipment	5,501,554	R4	9.00	15.00	825,233	2,380,023	2,296,298	4.30	534,023	9.71	7.22	397,212	136,811
396.70	Heavy Power Operated Equipment	22,553,445	L1	15.00	20.00	4,510,689	5,141,908	12,900,848	10.61	1,215,914	5.39	4.88	1,100,608	115,306
397.00	Communication Equipment	84,043,634	R2	25.00	-	-	28,548,140	55,495,494	16.28	3,408,814	4.06	5.44	4,571,974	(1,163,160)
	TOTAL OREGON - GENERAL	194,962,540		29.44	1.00	1,953,057	55,225,278	137,784,205	21.72	8,520,984	4.37	5.05	9,854,478	(1,333,494)
	AZ, CO, MT, ETC. - GENERAL													
390.00	Structures & Improvements	374,036	R1	40.00	-	-	168,525	205,511	26.62	7,720	2.06	2.34	8,752	(1,032)
392.10	Transp. Eqpt. - Light Trucks & Vans	434,917	L0	13.00	-	-	189,076	245,841	8.81	27,905	6.42	6.71	29,183	(1,278)
392.50	Transp. Eqpt. - Medium Trucks	285,272	R1.5	16.00	15.00	42,791	183,048	59,433	7.03	8,454	2.96	5.64	16,089	(7,635)
392.90	Transp. Eqpt. - Trailers	51,384	R1.5	25.00	-	-	39,217	12,167	10.84	1,122	2.18	2.51	1,290	(167)
396.70	Heavy Power Operated Equipment	1,974,037	R3	25.00	5.00	98,702	1,143,858	731,477	13.68	53,471	2.71	5.81	114,692	(61,221)
397.00	Communication Equipment	4,887,547	R1.5	25.00	(5.00)	(244,377)	2,844,849	2,287,075	14.71	155,478	3.18	4.31	210,653	(55,176)
	TOTAL AZ, CO, MT, ETC. - GENERAL	8,007,193		24.73	(1.28)	(102,885)	4,568,573	3,541,505	14.39	254,150	3.17	4.75	380,659	(126,510)
	WASHINGTON - GENERAL													
390.00	Structures & Improvements	10,852,793	R3	30.00	(10.00)	(1,085,279)	3,541,952	8,396,120	20.37	412,181	3.80	3.80	412,406	(225)
392.10	Transp. Eqpt. - Light Trucks & Vans	2,336,736	R3	12.00	10.00	233,674	813,479	1,289,583	6.98	184,754	7.91	7.11	166,142	18,612
392.50	Transp. Eqpt. - Medium Trucks	2,983,492	R3	14.00	10.00	298,349	798,743	1,886,400	9.50	198,568	6.66	7.34	218,988	(20,420)
392.90	Transp. Eqpt. - Trailers	618,162	S0.5	33.00	15.00	92,724	129,882	395,556	24.18	16,359	2.65	2.87	17,741	(1,382)
396.30	Light Power Operated Equipment	1,697,352	R4	10.00	10.00	169,735	716,601	811,016	4.93	164,506	9.69	8.93	151,574	12,933
396.70	Heavy Power Operated Equipment	5,405,808	L1.5	13.00	15.00	810,871	1,500,301	3,094,636	8.41	367,971	6.81	7.16	387,056	(19,085)
397.00	Communication Equipment	12,790,163	R2	20.00	-	-	4,638,074	8,152,089	12.16	670,402	5.24	5.30	677,879	(7,477)
	TOTAL WASHINGTON - GENERAL	36,684,506		20.69	1.42	520,074	12,139,032	24,025,400	13.36	2,014,741	5.49	5.54	2,031,786	(17,044)
	IDAHO - GENERAL													
389.20	Land Rights	4,868	R1	40.00	-	-	2,855	2,013	20.57	98	2.01	2.36	115	(17)
390.00	Structures & Improvements	10,279,706	R1	40.00	(5.00)	(513,985)	4,335,362	6,458,329	29.69	217,525	2.12	2.43	249,797	(32,271)
392.10	Transp. Eqpt. - Light Trucks & Vans	2,304,705	S4	11.00	10.00	230,471	1,182,552	891,683	5.81	153,474	6.66	6.69	154,185	(711)
392.50	Transp. Eqpt. - Medium Trucks	2,747,101	L2	15.00	15.00	412,065	770,761	1,564,275	10.90	143,511	5.22	5.64	154,936	(11,425)
392.90	Transp. Eqpt. - Trailers	836,404	L2	33.00	10.00	83,640	257,275	495,489	23.66	20,942	2.50	2.51	20,994	(52)
396.30	Light Power Operated Equipment	1,479,460	R3	7.00	10.00	147,946	934,698	396,816	2.93	135,432	9.15	9.55	141,288	(5,856)
396.70	Heavy Power Operated Equipment	6,368,663	L0.5	18.00	25.00	1,592,166	1,465,106	3,311,391	13.43	246,567	3.87	5.81	370,019	(123,453)
397.00	Communication Equipment	11,635,654	S-.5	25.00	(5.00)	(581,783)	4,701,177	7,516,260	17.03	441,354	3.79	4.75	552,694	(111,340)
	TOTAL IDAHO - GENERAL	35,656,561		25.84	3.84	1,370,520	13,649,786	20,636,255	18.41	1,358,903	3.81	4.61	1,644,028	(285,125)
	WYOMING - GENERAL													
389.20	Land Rights	23,404	SQ	50.00	-	-	575	22,829	48.63	469	2.01	2.36	552	(83)
390.00	Structures & Improvements	6,118,855	R3	40.00	(15.00)	(917,828)	2,121,382	4,915,301	26.52	185,343	3.03	2.58	157,866	27,477
392.10	Transp. Eqpt. - Light Trucks & Vans	4,786,508	S1.5	13.00	10.00	478,651	1,405,111	2,902,746	8.26	351,422	7.34	5.89	281,925	69,497
392.50	Transp. Eqpt. - Medium Trucks	4,802,133	S2	14.00	10.00	480,213	1,370,577	2,951,343	9.04	326,476	6.80	4.67	224,260	102,216
392.90	Transp. Eqpt. - Trailers	2,123,847	R4	30.00	5.00	106,192	679,162	1,338,493	18.71	71,539	3.37	3.27	69,450	2,089
396.30	Light Power Operated Equipment	2,407,263	R4	9.00	15.00	361,089	880,002	1,166,172	4.67	249,716	10.37	7.82	188,248	61,468
396.70	Heavy Power Operated Equipment	23,714,268	S-.5	15.00	25.00	5,928,567	4,278,483	13,507,218	10.97	1,231,287	5.19	3.93	931,971	299,316
397.00	Communication Equipment	32,265,699	L2	20.00	(2.00)	(645,314)	10,595,185	22,315,828	12.80	1,743,424	5.40	4.86	1,568,113	175,311
	TOTAL WYOMING - GENERAL	76,241,977		19.17	7.60	5,791,571	21,330,477	49,119,929	12.73	4,159,676	5.46	4.49	3,422,385	737,291

PACIFICORP
REMAINING LIFE DEPRECIATION RATES

SCHEDULE 1

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life	[6] Percent	[7] NET SALVAGE Amount	[8] 12/31/2006 Book Reserve	[9] Net Plant	[10] Rem. Life	[11] Annual Amount	[12] Deprec. Rate	[13] Existing Rate	[14] Annual Amount	[15] Increase or (Decrease)
		$		Yrs	%	$	$	$	Yrs	$	%	%	$	$
	CALIFORNIA - GENERAL													
390.00	Structures & Improvements	1,411,660	R3	50.00	(20.00)	(282,332)	566,924	1,127,068	33.57	33,574	2.38	2.22	31,339	2,235
392.10	Transp. Eqpt. - Light Trucks & Vans	706,803	S3	10.00	20.00	141,361	242,527	322,915	5.79	55,771	7.89	6.31	44,599	11,172
392.50	Transp. Eqpt. - Medium Trucks	804,491	L2	15.00	15.00	120,674	186,282	497,535	10.99	45,272	5.63	5.04	40,546	4,725
392.90	Transp. Eqpt. - Trailers	282,127	R4	35.00	5.00	14,106	95,010	173,011	22.82	7,582	2.69	2.30	6,489	1,093
396.30	Light Power Operated Equipment	1,034,237	R4	8.00	15.00	155,136	529,458	349,643	3.27	106,925	10.34	5.92	61,227	45,698
396.70	Heavy Power Operated Equipment	2,683,072	R2.5	15.00	15.00	402,461	880,654	1,399,957	9.31	150,371	5.60	3.42	91,761	58,610
397.00	Communication Equipment	4,354,177	R2	25.00	(5.00)	(217,709)	1,774,777	2,797,109	15.47	180,809	4.15	4.15	180,698	110
	TOTAL CALIFORNIA - GENERAL	11,276,567		22.79	2.96	333,696	4,275,632	6,667,239	14.41	580,303	5.15	4.05	456,660	123,643
	UTAH - GENERAL													
389.20	Land Rights	35,298	R1	40.00	-	-	18,357	16,941	20.32	834	2.36	2.36	833	1
390.00	Structures & Improvements	82,299,796	R1	40.00	5.00	4,114,990	23,253,236	54,931,570	28.74	1,911,328	2.32	2.43	1,999,885	(88,557)
392.10	Transp. Eqpt. - Light Trucks & Vans	18,602,220	R3	12.00	10.00	1,860,222	7,672,256	9,069,742	6.80	1,333,786	7.17	6.69	1,244,489	89,297
392.30	Aircraft	3,627,673	SQ	10.00	64.00	2,321,711	69,006	1,236,956	9.50	130,206	3.59	3.60	130,596	(390)
392.50	Transp. Eqpt. - Medium Trucks	19,720,064	L2	16.00	10.00	1,972,006	6,329,113	11,418,945	10.60	1,077,259	5.46	5.64	1,112,212	(34,953)
392.90	Transp. Eqpt. - Trailers	6,759,351	S1	28.00	25.00	1,689,838	1,944,931	3,124,582	17.83	175,243	2.59	2.51	169,660	5,583
396.30	Light Power Operated Equipment	3,293,654	R4	8.00	10.00	329,365	1,846,344	1,117,945	3.28	340,837	10.35	9.55	314,544	26,293
396.70	Heavy Power Operated Equipment	44,065,692	L0.5	12.00	15.00	6,609,854	12,482,731	24,973,107	8.22	3,038,091	6.89	5.81	2,560,217	477,874
397.00	Communication Equipment	74,584,419	R1	25.00	(5.00)	(3,729,221)	21,922,580	56,391,060	18.38	3,068,066	4.11	4.75	3,542,760	(474,694)
	TOTAL UTAH - GENERAL	252,988,167		25.60	6.00	15,168,765	75,538,554	162,280,848	18.18	11,075,649	4.38	4.38	11,075,195	455
	TOTAL GENERAL PLANT	615,817,511		25.68	4.07	25,034,798	186,727,332	404,055,381	18.24	27,964,406	4.54	4.69	28,865,190	(900,784)
UTAH MINING														
399.30	Structures & Improvements	13,118,775	FCST	33.56	(0.50)	(65,594)	11,918,959	1,265,410	11.43	110,710	0.84	2.61	342,400	(231,691)
399.30	Structures & Improvements - Prep Plant	24,022,508	FCST	51.89	(7.21)	(1,732,023)	9,464,183	16,290,348	37.33	436,388	1.82	3.13	751,905	(315,517)
399.41	Surface Processing Equip - Prep Plant	8,178,843	FCST	51.47	(7.21)	(589,695)	3,153,784	5,614,754	37.33	150,409	1.84	3.22	263,359	(112,950)
399.44	Surface Electric Power Facilities	3,181,747	SQ	13.20	-	-	176,296	3,005,451	12.70	236,650	7.44	6.67	212,223	24,427
399.45	Underground Equipment	106,004,030	L2	12.00	5.00	5,300,202	70,494,819	30,209,010	6.26	4,825,720	4.55	7.57	8,024,505	(3,198,785)
399.51	Vehicles	1,051,693	S3	14.00	5.00	52,585	624,453	374,655	8.02	46,715	4.44	5.67	59,631	(12,916)
399.52	Heavy Construction Equipment	3,180,145	R5	18.00	5.00	159,007	2,114,097	907,041	9.39	96,596	3.04	4.50	143,107	(46,510)
399.60	Miscellaneous Equipment	2,114,401	L1.5	13.00	1.00	21,144	1,328,308	764,949	7.36	103,933	4.92	6.76	142,934	(39,000)
399.61	Computer Equipment	600,464	R4	8.00	-	-	574,703	25,761	2.77	9,300	1.55	7.79	46,776	(37,476)
399.70	Mine Development	34,700,270	FCST	24.17	-	-	23,823,168	10,877,102	12.23	889,379	2.56	4.39	1,523,342	(633,963)
	TOTAL UTAH MINING	196,152,876		22.25	1.60	3,145,626	123,672,770	69,334,480	12.93	6,905,799	3.52	5.87	11,510,180	(4,604,381)
	TOTAL ELECTRIC PLANT	14,049,535,106		48.45	(23.90)	(3,357,527,927)	5,757,725,973	11,649,337,060	33.05	378,627,133	2.69	2.91	409,204,552	(30,577,419)

DUKE ENERGY INDIANA
SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2009

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(8)/(4)	(8)	(9)=(6)/(8)
	INTANGIBLE PLANT								
3010	ORGANIZATION	NONDEPRECIABLE		225,629.48					
3030	MISCELLANEOUS INTANGIBLE PLANT	NONDEPRECIABLE		140,496,563.72					
	TOTAL INTANGIBLE PLANT			**140,722,193.20**					
	STEAM PRODUCTION PLANT								
3100	LAND AND LAND RIGHTS	NONDEPRECIABLE		18,394,981.18					
3110	STRUCTURES AND IMPROVEMENTS								
	EDWARDSPORT	100-R2.5 *	(26)	12,794,123.13	16,120,595	0	-	0	-
	WABASH RIVER UNIT 2	100-R2.5 *	(15)	30,126.87	34,646	0	-	0	-
	WABASH RIVER UNIT 5	100-R2.5 *	(15)	37,678.84	43,331	0	-	0	-
	WABASH RIVER UNIT 6	100-R2.5 *	(15)	2,547,977.02	1,954,856	975,318	2.12	53,919	18.1
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 4	100-R2.5 *	(15)	154,628.20	177,822	0	-	0	-
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 6	100-R2.5 *	(15)	58,650,604.89	43,291,104	24,157,091	2.27	1,331,925	18.1
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 5	100-R2.5 *	(15)	30,608.57	35,200	0	-	0	-
	GALLAGHER UNIT 1	100-R2.5 *	(14)	37,650.18	25,347	17,574	3.26	1,227	14.3
	GALLAGHER UNIT 2	100-R2.5 *	(14)	19,632.90	14,762	7,620	2.91	571	13.3
	GALLAGHER UNIT 3	100-R2.5 *	(14)	4,117.92	1,222	3,473	5.51	227	15.3
	GALLAGHER UNIT 4	100-R2.5 *	(14)	25,584.18	17,739	11,427	2.76	706	16.2
	GALLAGHER - COMMON PLANT UNITS 1 THROUGH 4	100-R2.5 *	(14)	34,864,791.32	33,005,814	6,740,048	1.19	415,878	16.2
	CAYUGA UNIT 1	100-R2.5 *	(11)	14,443.70	1,772	14,261	4.02	580	24.6
	CAYUGA UNIT 2	100-R2.5 *	(11)	72,823.57	13,389	67,446	3.50	2,551	26.4
	CAYUGA - COMMON PLANT UNITS 1 & 2	100-R2.5 *	(11)	51,968,913.54	34,864,606	22,820,888	1.68	871,884	26.2
	CAYUGA UNITS 1 & 2 FLUE GAS DESUL SB29	20-SQ	(10)	9,547,820.60	660,123	9,842,479	5.50 **	525,007	18.7
	DRESSER TRAINING AND NDT CENTER	100-R2.5 *	(30)	1,443,599.23	1,876,679	0	-	0	-
	GIBSON UNIT 1	100-R2.5 *	(14)	19,756,036.61	15,746,307	6,775,577	1.16	229,909	29.5
	GIBSON UNIT 2	100-R2.5 *	(14)	24,531,897.52	20,192,935	7,773,428	1.11	273,061	28.5
	GIBSON UNIT 3	100-R2.5 *	(14)	34,512,272.12	26,407,019	12,936,972	1.21	416,893	31.0
	GIBSON UNIT 4	100-R2.5 *	(14)	59,786,343.39	35,983,400	32,173,032	1.65	988,489	32.5
	GIBSON UNIT 5	100-R2.5 *	(14)	26,483,399.19	17,876,461	12,314,616	1.34	355,708	34.6
	GIBSON - COMMON PLANT UNITS 1 & 2	100-R2.5 *	(14)	8,235,786.83	2,850,187	6,538,610	2.65	218,136	30.0
	GIBSON - COMMON PLANT UNITS 1 THROUGH 4	100-R2.5 *	(14)	1,913,639.62	959,020	1,222,530	2.00	38,318	31.9
	GIBSON - COMMON PLANT UNITS 1 THROUGH 5	100-R2.5 *	(14)	91,465,770.46	54,452,317	49,818,663	1.56	1,429,362	34.9
	TOTAL ACCOUNT 311			438,930,270.40	306,606,653	194,211,053	1.63	7,154,351	27.1
3120	BOILER PLANT								
	EDWARDSPORT	50-L1 *	(36)	24,012,596.14	28,267,913	4,389,223	12.23	2,936,519	1.5
	WABASH RIVER UNIT 2	50-L1 *	(22)	23,567,005.55	28,751,747	0	-	0	-
	WABASH RIVER UNIT 3	50-L1 *	(22)	22,740,861.81	27,743,851	0	-	0	-
	WABASH RIVER UNIT 4	50-L1 *	(22)	22,266,228.65	17,659,655	9,505,143	7.98	1,776,664	5.3
	WABASH RIVER UNIT 5	50-L1 *	(22)	29,227,161.30	35,657,137	0	-	0	-
	WABASH RIVER UNIT 6	50-L1 *	(22)	82,067,705.28	47,307,260	52,815,341	4.18	3,427,153	15.4
	WABASH RIVER UNIT 2 - SB29	18-SQ	(20)	907,920.04	1,089,504	0	-	0	-
	WABASH RIVER UNIT 3 - SB29	18-SQ	(20)	934,834.15	1,121,801	0	-	0	-
	WABASH RIVER UNIT 4 - SB29	18-SQ	(20)	751,578.81	325,800	576,095	6.67 **	50,095	11.5
	WABASH RIVER UNIT 5 - SB29	18-SQ	(20)	1,027,843.59	1,233,412	0	-	0	-
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 4	50-L1 *	(22)	2,855,703.99	2,833,000	650,958	4.40	125,772	5.2
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 6	50-L1 *	(22)	29,440,540.10	17,357,334	18,560,125	4.09	1,205,480	15.4
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 5	50-L1 *	(22)	15,938,067.45	14,991,543	4,452,900	5.35	852,402	5.2
	GALLAGHER UNIT 1	50-L1 *	(20)	22,261,394.93	12,975,619	13,738,056	4.79	1,065,729	12.9
	GALLAGHER UNIT 2	50-L1 *	(20)	28,210,039.91	13,026,991	20,825,057	5.96	1,680,157	12.4
	GALLAGHER UNIT 3	50-L1 *	(20)	33,880,463.13	15,648,803	25,007,751	5.33	1,807,118	13.8
	GALLAGHER UNIT 4	50-L1 *	(20)	21,233,813.32	10,978,011	14,502,566	4.74	1,006,896	14.4
	GALLAGHER UNIT 1 - SB29	20-SQ	(10)	28,712,177.54	3,939,070	27,644,325	5.50 **	1,579,676	17.5
	GALLAGHER UNIT 2 - SB29	20-SQ	(10)	25,531,484.84	3,508,544	24,576,089	5.50 **	1,404,348	17.5
	GALLAGHER UNIT 3 - SB29	20-SQ	(10)	27,780,528.33	2,278,870	28,279,711	5.50 **	1,528,633	18.5
	GALLAGHER UNIT 4 - SB29 6.67%	18-SQ	(20)	4,756,035.74	2,694,956	3,012,287	6.67 **	317,083	9.5
	GALLAGHER UNIT 4 - SB29 5.50%	20-SQ	(10)	26,459,263.65	2,173,536	26,931,654	5.50 **	1,455,765	18.5
	GALLAGHER - COMMON PLANT UNITS 1 & 2	50-L1 *	(20)	8,702,420.79	4,572,987	5,869,918	5.19	451,478	13.0
	GALLAGHER - COMMON PLANT UNITS 1 THROUGH 4	50-L1 *	(20)	28,163,279.70	15,073,992	18,721,943	4.64	1,307,601	14.3

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(8)/(4)	(8)	(9)=(6)/(8)
	CAYUGA UNIT 1	50-L1 *	(17)	74,805,274.88	33,324,188	54,197,983	3.69	2,761,935	19.6
	CAYUGA UNIT 2	50-L1 *	(17)	75,600,175.92	30,025,636	58,426,569	3.73	2,816,878	20.7
	CAYUGA UNIT 1 - SB29	18-SQ	(20)	25,223,201.25	7,572,214	22,695,628	6.67 **	1,681,158	13.5
	CAYUGA UNIT 2 - SB29 6.67%	18-SQ	(20)	1,885,795.91	440,241	1,822,714	6.67 **	125,704	14.5
	CAYUGA UNIT 2 - SB29 5.50%	20-SQ	(10)	222,464,965.72	20,691,280	224,020,182	5.50 **	12,230,671	18.3
	CAYUGA UNIT 1 FLUE GAS DESUL SB29	20-SQ	(10)	188,912,929.29	15,596,140	192,208,082	5.50 **	10,389,626	18.5
	CAYUGA - COMMON PLANT UNITS 1 & 2	50-L1 *	(17)	21,627,759.07	9,202,502	16,101,975	3.62	782,190	20.6
	DRESSER TRAINING AND NDT CENTER	50-L1 *	(30)	100,514.65	130,669	0	-	0	-
	GIBSON UNIT 1	50-L1 *	(20)	127,813,899.92	61,175,696	92,200,983	3.34	4,272,971	21.6
	GIBSON UNIT 2	50-L1 *	(20)	139,251,078.58	61,344,264	105,757,030	3.53	4,914,004	21.5
	GIBSON UNIT 3	50-L1 *	(20)	116,898,181.50	60,939,129	79,338,692	3.11	3,629,904	21.9
	GIBSON UNIT 4	50-L1 *	(20)	259,182,956.03	122,706,050	188,313,497	3.26	8,451,026	22.3
	GIBSON UNIT 5	50-L1 *	(20)	128,332,362.74	68,905,018	85,093,817	2.94	3,774,837	22.5
	GIBSON UNIT 2 - SB29	18-SQ	(20)	2,184,215.31	457,140	2,163,917	6.67 **	145,591	14.9
	GIBSON UNIT 3 - SB29	18-SQ	(20)	4,142,808.31	527,262	4,444,108	6.67 **	276,169	16.1
	GIBSON UNIT 4 - SB29	18-SQ	(20)	1,445,608.80	242,850	1,491,881	6.67 **	96,362	15.5
	GIBSON UNIT 5 - SB29	18-SQ	(20)	1,629,291.55	210,054	1,745,096	6.67 **	108,612	16.1
	GIBSON UNIT 1 - SCR SB29	18-SQ	(20)	124,921,147.47	36,941,822	112,963,555	6.67 **	8,326,183	13.6
	GIBSON UNIT 2 - SCR SB29	18-SQ	(20)	119,337,116.84	56,938,316	86,266,224	6.67 **	7,954,501	10.8
	GIBSON UNIT 3 - SCR SB29	18-SQ	(20)	120,569,584.08	58,025,404	86,658,097	6.67 **	8,036,583	10.8
	GIBSON UNIT 4 - SCR SB29	18-SQ	(20)	124,417,147.01	51,816,880	97,483,696	6.67 **	8,293,229	11.8
	GIBSON UNIT 5 - SCR SB29	18-SQ	(20)	60,452,625.92	20,931,536	51,611,614	6.67 **	4,029,593	12.8
	GIBSON UNIT 1 FLUE GAS DESUL SB29	20-SQ	(10)	142,248,307.88	19,572,724	136,900,415	5.50 **	7,822,881	17.5
	GIBSON UNIT 2 FLUE GAS DESUL SB29	20-SQ	(10)	149,108,992.68	20,516,724	143,503,168	5.50 **	8,200,181	17.5
	GIBSON UNIT 3 FLUE GAS DESUL SB29	20-SQ	(10)	208,039,121.06	40,075,342	188,767,691	5.50 **	11,440,466	16.5
	GIBSON UNIT 5 FLUE GAS DESUL SB29	20-SQ	(10)	19,812,700.52	1,635,684	20,158,287	5.50 **	1,089,637	18.5
	GIBSON - COMMON PLANT UNITS 1 & 2	50-L1 *	(20)	6,281,894.10	4,123,187	3,415,087	2.72	170,602	20.0
	GIBSON - COMMON PLANT UNITS 1 THROUGH 4	50-L1 *	(20)	12,916,053.85	8,824,514	6,674,750	2.54	328,208	20.3
	GIBSON - COMMON PLANT UNITS 1 THROUGH 5	50-L1 *	(20)	113,437,335.40	44,513,441	91,611,360	3.37	3,823,258	24.0
	GIBSON - COMMON PLANT UNITS 1 THROUGH 5 - SB29	18-SQ	(20)	3,175,893.07	101,898	3,709,174	6.67 **	211,953	17.5
	TOTAL ACCOUNT 312			3,107,647,888.05	1,168,719,141	2,459,804,414	4.83	150,163,482	16.4
3121	BOILER PLANT - COAL CARS								
	GIBSON	30-S2.5 *	0	7,735,031.57	2,497,225	5,237,807	3.62	279,628	18.7
3123	BOILER PLANT SCR CATALYST								
	GIBSON UNIT 2 - SCR SB29	18-SQ	(20)	5,455,184.66	2,355,428	4,190,794	6.67 **	363,861	11.5
	GIBSON UNIT 3 - SCR SB29	18-SQ	(20)	5,652,917.01	2,440,804	4,342,696	6.67 **	377,050	11.5
	GIBSON UNIT 4 - SCR SB29	18-SQ	(20)	122,830.67	38,895	108,502	6.67 **	8,193	13.2
	TOTAL ACCOUNT 3123			11,230,932.34	4,835,127	8,641,992	6.67	749,103	11.5
3140	TURBOGENERATOR UNITS								
	EDWARDSPORT	60-S0.5 *	(18)	10,918,815.58	12,884,202	0	-	0	-
	WABASH RIVER UNIT 2	60-S0.5 *	(11)	8,312,003.55	9,226,324	0	-	0	-
	WABASH RIVER UNIT 3	60-S0.5 *	(11)	5,229,343.49	5,804,571	0	-	0	-
	WABASH RIVER UNIT 4	60-S0.5 *	(11)	5,816,585.38	6,091,425	364,985	1.16	67,337	5.4
	WABASH RIVER UNIT 5	60-S0.5 *	(11)	9,050,285.02	10,045,816	0	-	0	-
	WABASH RIVER UNIT 6	60-S0.5 *	(11)	16,110,244.39	11,479,783	6,402,589	2.41	388,430	16.5
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 4	60-S0.5 *	(11)	3,018,365.80	3,121,493	228,893	1.41	42,409	5.4
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 6	60-S0.5 *	(11)	2,027,018.28	1,325,185	924,805	2.73	55,323	16.7
	WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 5	60-S0.5 *	(11)	209,273.03	206,863	25,430	2.25	4,713	5.4
	GALLAGHER UNIT 1	60-S0.5 *	(10)	13,573,890.14	7,063,782	7,867,492	4.22	572,398	13.7
	GALLAGHER UNIT 2	60-S0.5 *	(10)	11,727,090.33	8,457,110	4,442,687	2.98	349,096	12.7
	GALLAGHER UNIT 3	60-S0.5 *	(10)	13,142,146.88	6,944,102	7,512,257	3.92	515,353	14.6
	GALLAGHER UNIT 4	60-S0.5 *	(10)	13,775,918.34	8,824,712	6,328,797	3.02	416,475	15.2
	GALLAGHER - COMMON PLANT UNITS 1 & 2	60-S0.5 *	(10)	1,054,634.48	682,438	477,660	3.33	35,170	13.6
	GALLAGHER - COMMON PLANT UNITS 1 THROUGH 4	60-S0.5 *	(10)	2,363,964.87	1,816,536	783,826	2.22	52,567	14.9
	CAYUGA UNIT 1	60-S0.5 *	(8)	33,317,632.39	16,719,862	19,263,181	2.66	886,345	21.7
	CAYUGA UNIT 2	60-S0.5 *	(8)	33,517,997.59	14,914,414	21,285,022	2.74	920,059	23.1
	CAYUGA - COMMON PLANT UNITS 1 & 2	60-S0.5 *	(8)	17,025,489.57	8,063,718	10,323,811	2.63	448,580	23.0

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ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(8)/(4)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	COMPOSITE REMAINING LIFE (9)=(6)/(8)
GIBSON UNIT 1	60-S0.5 *	(10)	33,322,460.26	17,378,380	19,276,325	2.32	774,143	24.9
GIBSON UNIT 2	60-S0.5 *	(10)	40,880,038.22	16,027,400	28,940,642	2.82	1,152,378	25.1
GIBSON UNIT 3	60-S0.5 *	(10)	39,608,486.30	20,320,623	23,248,712	2.28	901,569	25.8
GIBSON UNIT 4	60-S0.5 *	(10)	51,315,002.41	15,381,235	41,065,268	2.91	1,492,831	27.5
GIBSON UNIT 5	60-S0.5 *	(10)	27,196,903.93	13,286,534	16,630,060	2.23	605,453	27.5
GIBSON - COMMON PLANT UNITS 1 & 2	60-S0.5 *	(10)	2,677,353.47	1,584,503	1,360,586	2.09	56,058	24.3
GIBSON - COMMON PLANT UNITS 1 THROUGH 5	60-S0.5 *	(10)	4,809,576.38	2,762,754	2,527,780	1.97	94,971	26.6
TOTAL ACCOUNT 314			400,000,520.08	220,413,765	219,280,808	2.46	9,831,658	22.3
3150 ACCESSORY ELECTRIC EQUIPMENT								
EDWARDSPORT	65-R2 *	(9)	2,220,756.81	2,420,625	0	-	0	-
WABASH RIVER UNIT 2	65-R2 *	(6)	385,387.01	408,510	0	-	0	-
WABASH RIVER UNIT 3	65-R2 *	(6)	379,209.51	401,962	0	-	0	-
WABASH RIVER UNIT 4	65-R2 *	(6)	413,923.73	438,759	0	-	0	-
WABASH RIVER UNIT 5	65-R2 *	(6)	2,457,595.53	2,605,051	0	-	0	-
WABASH RIVER UNIT 6	65-R2 *	(6)	6,594,291.78	5,730,173	1,259,777	1.12	73,640	17.1
WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 4	65-R2 *	(6)	7,038,987.12	7,461,326	0	-	0	-
WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 6	65-R2 *	(6)	2,388,254.92	1,688,215	843,336	2.03	48,506	17.4
WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 5	65-R2 *	(6)	2,356,200.20	2,497,572	0	-	0	-
GALLAGHER UNIT 1	65-R2 *	(5)	1,277,675.53	1,291,852	49,708	0.28	3,569	13.9
GALLAGHER UNIT 2	65-R2 *	(5)	1,176,940.68	1,235,788	0	-	0	-
GALLAGHER UNIT 3	65-R2 *	(5)	1,334,330.09	1,354,345	46,701	0.24	3,186	14.7
GALLAGHER UNIT 4	65-R2 *	(5)	1,405,935.83	1,306,872	169,360	0.78	10,972	15.4
GALLAGHER - COMMON PLANT UNITS 1 & 2	65-R2 *	(5)	776,474.93	557,328	257,970	2.41	18,684	13.8
GALLAGHER - COMMON PLANT UNITS 1 THROUGH 4	65-R2 *	(5)	2,861,565.10	2,471,857	532,787	1.19	34,140	15.6
CAYUGA UNIT 1	65-R2 *	(4)	5,789,640.80	4,180,387	1,840,840	1.43	82,592	22.3
CAYUGA UNIT 2	65-R2 *	(4)	4,173,490.41	3,113,131	1,227,298	1.25	52,303	23.5
CAYUGA - COMMON PLANT UNITS 1 & 2	65-R2 *	(4)	1,738,692.98	1,240,420	567,821	1.39	24,144	23.5
DRESSER TRAINING AND NDT CENTER	65-R2 *	(10)	40,392.36	44,432	0	-	0	-
GIBSON UNIT 1	65-R2 *	(5)	9,377,764.89	6,513,892	3,332,762	1.36	127,980	26.0
GIBSON UNIT 2	65-R2 *	(5)	11,775,535.62	8,637,267	3,727,045	1.26	147,885	25.2
GIBSON UNIT 3	65-R2 *	(5)	13,276,720.84	9,939,253	4,001,306	1.15	152,719	26.2
GIBSON UNIT 4	65-R2 *	(5)	17,134,136.31	10,326,130	7,664,711	1.58	269,980	28.4
GIBSON UNIT 5	65-R2 *	(5)	14,036,559.63	9,460,570	5,277,817	1.31	183,238	28.8
GIBSON - COMMON PLANT UNITS 1 & 2	65-R2 *	(5)	105,298.80	86,422	24,141	0.94	992	24.3
GIBSON - COMMON PLANT UNITS 1 THROUGH 4	65-R2 *	(5)	78,568.16	42,939	39,558	1.74	1,369	28.9
GIBSON - COMMON PLANT UNITS 1 THROUGH 5	65-R2 *	(5)	9,275,409.60	5,580,434	4,158,747	1.51	139,811	29.7
TOTAL ACCOUNT 315			119,869,739.17	91,035,512	35,021,685	1.15	1,375,710	25.5
3160 MISCELLANEOUS POWER PLANT EQUIPMENT								
EDWARDSPORT	50-S0 *	(9)	5,066,890.19	5,522,910	0	-	0	-
WABASH RIVER UNIT 2	50-S0 *	(6)	3,008,930.67	3,189,467	0	-	0	-
WABASH RIVER UNIT 3	50-S0 *	(6)	285,090.04	302,195	0	-	0	-
WABASH RIVER UNIT 4	50-S0 *	(6)	491,831.94	411,127	110,215	4.18	20,556	5.4
WABASH RIVER UNIT 5	50-S0 *	(6)	32,696.05	34,658	0	-	0	-
WABASH RIVER UNIT 6	50-S0 *	(6)	6,445,684.35	3,939,946	2,892,479	2.86	184,534	15.7
WABASH RIVER UNIT 2 - SB29	18-SQ	(20)	715,533.03	858,640	0	-	0	-
WABASH RIVER UNIT 3 - SB29	18-SQ	(20)	662,142.58	794,571	0	-	0	-
WABASH RIVER UNIT 4 - SB29	18-SQ	(20)	552,719.57	165,679	497,584	6.67 **	36,858	13.5
WABASH RIVER UNIT 5 - SB29	18-SQ	(20)	590,441.20	708,529	0	-	0	-
WABASH RIVER UNIT 6 - SB29	18-SQ	(20)	663,137.31	242,649	553,116	6.67 **	44,249	12.5
WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 4	50-S0 *	(6)	48,229.68	40,780	10,343	4.01	1,933	5.4
WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 6	50-S0 *	(6)	10,139,592.24	5,137,086	5,610,882	3.48	353,353	15.9
WABASH RIVER - COMMON PLANT UNITS 2 THROUGH 5	50-S0 *	(6)	247,803.14	203,326	59,347	4.48	11,092	5.4
GALLAGHER UNIT 1	50-S0 *	(6)	485,305.59	99,695	414,729	6.47	31,387	13.2
GALLAGHER UNIT 2	50-S0 *	(6)	380,704.69	171,504	232,043	4.94	18,796	12.3
GALLAGHER UNIT 3	50-S0 *	(6)	133,759.94	53,839	87,946	4.73	6,325	13.9
GALLAGHER UNIT 4	50-S0 *	(6)	141,694.07	52,635	97,560	4.70	6,662	14.6
GALLAGHER UNIT 1 - SB29	18-SQ	(20)	2,373,698.54	858,428	1,990,010	6.67 **	158,286	12.6
GALLAGHER UNIT 2 - SB29	18-SQ	(20)	508,179.88	253,699	356,117	6.67 **	33,916	10.5

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	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(8)/(4)	(8)	(9)=(6)/(8)
	GALLAGHER - COMMON PLANT UNITS 1 & 2	50-S0 *	(6)	1,434,315.54	902,051	618,324	3.34	47,914	12.9
	GALLAGHER - COMMON PLANT UNITS 1 THROUGH 4	50-S0 *	(6)	8,336,824.94	4,320,384	4,516,648	3.73	311,187	14.5
	GALLAGHER - COMMON PLANT UNITS 1 & 2 - SB29	20-SQ	(10)	2,135,762.73	176,559	2,172,780	5.50 **	117,448	18.5
	CAYUGA UNIT 1	50-S0 *	(5)	6,063,183.28	3,240,888	3,125,454	2.62	158,695	19.7
	CAYUGA UNIT 2	50-S0 *	(5)	6,086,077.39	3,180,057	3,210,324	2.56	155,684	20.6
	CAYUGA UNIT 1 - SB29	18-SQ	(20)	1,521,576.59	760,761	1,065,131	6.67 **	101,441	10.5
	CAYUGA - COMMON PLANT UNITS 1 & 2	50-S0 *	(5)	6,630,212.41	3,033,477	3,928,245	2.84	188,352	20.9
	DRESSER TRAINING AND NDT CENTER	50-S0 *	(5)	4,540,078.17	4,767,082	0	-	0	-
	GIBSON UNIT 1	50-S0 *	(6)	3,961,548.68	1,990,890	2,208,351	2.49	98,541	22.4
	GIBSON UNIT 2	50-S0 *	(6)	3,343,935.06	1,629,100	1,915,471	2.61	87,156	22.0
	GIBSON UNIT 3	50-S0 *	(6)	5,253,577.34	2,596,596	2,972,196	2.45	128,722	23.1
	GIBSON UNIT 4	50-S0 *	(6)	6,162,244.48	2,953,374	3,578,606	2.48	152,667	23.4
	GIBSON UNIT 5	50-S0 *	(6)	4,849,390.72	1,952,595	3,187,759	2.66	129,088	24.7
	GIBSON UNIT 1 - SB29	18-SQ	(20)	586,577.80	97,276	606,617	6.67 **	39,137	15.5
	GIBSON UNIT 2 - SB29	18-SQ	(20)	803,845.68	187,602	777,013	6.67 **	53,587	14.5
	GIBSON UNIT 3 - SB29	18-SQ	(20)	1,110,651.92	184,627	1,148,155	6.67 **	74,075	15.5
	GIBSON UNIT 4 - SB29	18-SQ	(20)	1,019,636.65	246,226	977,338	6.67 **	68,024	14.4
	GIBSON UNIT 5 - SB29	18-SQ	(20)	209,949.82	34,907	217,033	6.67 **	14,002	15.5
	GIBSON UNIT 1 - SB29 5.50%	20-SQ	(10)	568,503.97	47,177	578,177	5.50 **	31,253	18.5
	GIBSON UNIT 2 - SB29 5.50%	20-SQ	(10)	544,395.61	44,862	553,973	5.50 **	29,951	18.5
	GIBSON UNIT 3 - SB29 5.50%	20-SQ	(10)	666,173.01	55,171	677,619	5.50 **	36,628	18.5
	GIBSON UNIT 4 - SB29 5.50%	20-SQ	(10)	1,021,338.81	83,517	1,039,956	5.50 **	56,214	18.5
	GIBSON - COMMON PLANT UNITS 1 & 2	50-S0 *	(6)	1,631,929.10	850,757	879,088	2.42	39,415	22.3
	GIBSON - COMMON PLANT UNITS 1 THROUGH 4	50-S0 *	(6)	318,687.82	105,275	232,534	3.05	9,722	23.9
	GIBSON - COMMON PLANT UNITS 1 THROUGH 5	50-S0 *	(6)	21,319,546.65	10,339,727	12,258,992	2.37	504,943	24.3
	TOTAL ACCOUNT 316			123,094,028.87	66,822,301	65,358,155	2.88	3,541,793	18.5
	TOTAL STEAM PRODUCTION PLANT			**4,226,903,391.66**	**1,860,929,724**	**2,987,555,914**	4.10	**173,095,725**	
	HYDRAULIC PRODUCTION PLANT								
3310	STRUCTURES AND IMPROVEMENTS	100-R3 *	(15)	5,277,815.73	3,541,924	2,527,565	1.20	63,273	39.9
3320	RESERVOIRS, DAMS AND WATERWAYS	75-R3 *	(15)	12,338,550.18	12,702,655	1,486,677	0.35	43,223	34.4
3330	WATER WHEELS, TURBINES AND GENERATORS	60-R3 *	(20)	8,423,870.46	7,500,190	2,608,454	0.88	74,085	35.2
3340	ACCESSORY ELECTRIC EQUIPMENT	55-R3 *	(5)	683,888.42	618,236	99,847	0.56	3,846	26.0
3350	MISCELLANEOUS POWER PLANT EQUIPMENT	50-R3 *	0	733,138.86	564,973	168,164	0.68	4,988	33.7
	TOTAL HYDRAULIC PRODUCTION PLANT			**27,457,263.65**	**24,927,978**	**6,890,707**	0.69	**189,415**	
	OTHER PRODUCTION PLANT								
3400	LAND AND LAND RIGHTS	NONDEPRECIABLE		5,091,166.00					
3401	RIGHTS OF WAY	NONDEPRECIABLE		28,987.75					
3410	STRUCTURES AND IMPROVEMENTS								
	NOBLESVILLE	60-R4 *	(10)	10,820,293.32	5,598,048	6,304,277	2.21	239,047	26.4
	NOBLESVILLE UNIT 3	60-R4 *	(10)	3,159,796.49	713,218	2,762,558	3.11	98,312	28.1
	NOBLESVILLE UNIT 4	60-R4 *	(10)	3,159,796.49	713,218	2,762,558	3.11	98,312	28.1
	NOBLESVILLE UNIT 5	60-R4 *	(10)	3,179,123.62	715,779	2,781,257	3.11	98,974	28.1
	CAYUGA COMBUSTION TURBINE UNIT 4	60-R4 *	(10)	5,752,079.45	2,778,252	3,549,035	2.69	154,914	22.9
	MADISON UNITS 1 THRU 8	60-R4 *	(10)	9,971,446.56	2,880,084	8,088,508	2.73	272,184	29.7
	CADIZ UNITS 1 THRU 3	60-R4 *	(10)	4,813,808.66	1,250,710	4,044,480	2.74	131,692	30.7
	MIAMI-WABASH PEAKING STATION	60-R4 *	(10)	159,010.78	169,626	5,287	1.32	2,106	2.5
	CONNERSVILLE PEAKING STATION	60-R4 *	(10)	314,788.68	254,583	91,684	5.30	16,670	5.5
	CAYUGA	60-R4 *	(10)	5,514.86	5,789	277	0.92	51	5.4
	WHEATLAND COMMON	60-R4 *	(10)	367,820.42	54,410	350,193	3.16	11,630	30.1
	WHEATLAND UNIT 1	60-R4 *	(10)	28,000.00	4,376	26,424	3.14	878	30.1
	WHEATLAND UNIT 2	60-R4 *	(10)	28,000.00	4,376	26,424	3.14	878	30.1
	WHEATLAND UNIT 3	60-R4 *	(10)	28,000.00	4,375	26,425	3.14	878	30.1
	WHEATLAND UNIT 4	60-R4 *	(10)	28,000.00	4,376	26,424	3.14	878	30.1
	TOTAL ACCOUNT 341			41,815,479.33	15,151,220	30,845,811	2.70	1,127,404	27.4

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ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(8)/(4)	(8)	(9)=(6)/(8)
3420 FUEL HOLDERS, PRODUCERS AND ACCESSORIES								
NOBLESVILLE	60-S2.5 *	(5)	338.33	18	337	3.55	12	28.1
NOBLESVILLE UNIT 3	60-S2.5 *	(5)	44,569.04	5,158	41,639	3.33	1,485	28.0
NOBLESVILLE UNIT 4	60-S2.5 *	(5)	42,764.87	4,949	39,954	3.33	1,425	28.0
NOBLESVILLE UNIT 5	60-S2.5 *	(5)	38,802.17	4,490	36,252	3.33	1,293	28.0
NOBLESVILLE COMMON UNITS 3-5	60-S2.5 *	(5)	6,749,463.45	1,335,597	5,751,340	3.07	207,255	27.8
CAYUGA COMBUSTION TURBINE UNIT 4	60-S2.5 *	(5)	2,632,078.29	1,162,891	1,600,792	2.73	71,878	22.3
MADISON UNITS 1 THRU 8	60-S2.5 *	(5)	9,273,280.96	2,379,332	7,357,613	2.73	252,752	29.1
CADIZ UNITS 1 THRU 3	60-S2.5 *	(5)	703,415.05	161,488	577,098	2.72	19,166	30.1
MIAMI-WABASH PEAKING STATION	60-S2.5 *	(5)	287,387.79	281,707	20,049	2.88	8,282	2.4
CONNERSVILLE PEAKING STATION	60-S2.5 *	(5)	158,947.27	144,084	22,811	2.72	4,326	5.3
WABASH RIVER - DIESEL	60-S2.5 *	(5)	17,360.02	16,131	2,097	2.35	408	5.1
CAYUGA	60-S2.5 *	(5)	25,530.44	23,357	3,450	2.58	658	5.2
WHEATLAND COMMON	60-S2.5 *	(5)	762,137.09	104,409	695,835	3.07	23,389	29.8
WHEATLAND UNIT 1	60-S2.5 *	(5)	110,000.00	15,070	100,430	3.07	3,376	29.7
WHEATLAND UNIT 2	60-S2.5 *	(5)	110,000.00	15,070	100,430	3.07	3,376	29.7
WHEATLAND UNIT 3	60-S2.5 *	(5)	110,000.00	15,069	100,431	3.07	3,376	29.7
WHEATLAND UNIT 4	60-S2.5 *	(5)	110,000.00	15,070	100,430	3.07	3,376	29.7
TOTAL ACCOUNT 342			21,176,074.77	5,683,890	16,550,988	2.86	605,833	27.3
3430 PRIME MOVERS								
NOBLESVILLE	50-R2 *	(10)	27,164,903.12	6,639,266	23,242,126	3.56	966,424	24.0
NOBLESVILLE UNIT 3	50-R2 *	(10)	41,170,416.08	9,393,367	35,894,090	3.59	1,479,370	24.3
NOBLESVILLE UNIT 4	50-R2 *	(10)	41,347,199.35	9,458,874	36,023,045	3.59	1,484,504	24.3
NOBLESVILLE UNIT 5	50-R2 *	(10)	43,808,315.61	9,420,804	38,768,343	3.67	1,606,125	24.1
CAYUGA COMBUSTION TURBINE UNIT 4	50-R2 *	(10)	28,204,549.17	12,970,499	18,054,506	3.17	894,774	20.2
MADISON UNITS 1 THRU 8	50-R2 *	(10)	209,355,907.05	61,847,119	168,444,379	3.21	6,711,579	25.1
CADIZ UNITS 1 THRU 3	50-R2 *	(10)	38,239,709.65	10,258,143	31,805,538	3.22	1,229,873	25.9
MIAMI-WABASH PEAKING STATION	50-R2 *	(10)	9,561,463.37	9,100,713	1,416,897	6.00	573,989	2.5
CONNERSVILLE PEAKING STATION	50-R2 *	(10)	4,914,382.96	4,030,428	1,375,394	5.21	256,268	5.4
WHEATLAND COMMON	50-R2 *	(10)	750,000.00	123,236	701,764	3.68	27,585	25.4
WHEATLAND UNIT 1	50-R2 *	(10)	16,806,813.13	2,502,289	15,985,206	3.74	629,330	25.4
WHEATLAND UNIT 2	50-R2 *	(10)	16,107,862.34	2,646,745	15,071,904	3.68	592,449	25.4
WHEATLAND UNIT 3	50-R2 *	(10)	16,107,862.34	2,646,744	15,071,905	3.68	592,449	25.4
WHEATLAND UNIT 4	50-R2 *	(10)	16,271,656.60	2,613,488	15,285,334	3.70	601,300	25.4
BLOOMINGTON - SOLAR	50-R2 *	(5)	72,708.29	33,719	42,625	8.52	6,195	6.9
DOT WIND TURBINES	50-R2 *	(5)	46,081.39	9,348	39,037	4.54	2,093	18.7
TOTAL ACCOUNT 343			509,929,830.45	143,694,782	417,222,093	3.46	17,654,307	23.6
3440 GENERATORS								
NOBLESVILLE	50-R3 *	(15)	26,773,086.08	8,547,602	22,241,445	3.52	942,106	23.6
NOBLESVILLE UNIT 3	50-R3 *	(15)	2,392,621.14	496,300	2,255,214	3.60	86,143	26.2
NOBLESVILLE UNIT 4	50-R3 *	(15)	2,393,851.13	496,522	2,256,407	3.60	86,188	26.2
NOBLESVILLE UNIT 5	50-R3 *	(15)	2,392,621.13	496,300	2,255,214	3.60	86,143	26.2
CAYUGA COMBUSTION TURBINE UNIT 4	50-R3 *	(15)	8,600,152.70	3,951,431	5,938,744	3.30	283,469	21.0
MADISON UNITS 1 THRU 8	50-R3 *	(15)	70,250,327.54	18,974,276	61,813,600	3.24	2,278,194	27.1
CADIZ UNITS 1 THRU 3	50-R3 *	(15)	25,204,895.77	5,956,907	23,028,724	3.26	821,055	28.0
MIAMI-WABASH PEAKING STATION	50-R3 *	(15)	3,936,049.63	3,587,435	939,022	9.71	382,171	2.5
CONNERSVILLE PEAKING STATION	50-R3 *	(15)	6,186,447.67	4,309,256	2,805,159	8.34	516,081	5.4
WABASH RIVER - DIESEL	50-R3 *	(15)	592,416.55	537,257	144,022	4.85	28,743	5.0
CAYUGA	50-R3 *	(15)	1,497,612.08	891,159	831,095	10.21	152,954	5.4
WHEATLAND COMMON	50-R3 *	(15)	3,333.60	61	3,773	4.02	134	28.2
WHEATLAND UNIT 1	50-R3 *	(15)	4,059,676.06	586,801	4,081,826	3.59	145,936	28.0
WHEATLAND UNIT 2	50-R3 *	(15)	4,059,676.06	586,801	4,081,826	3.59	145,936	28.0
WHEATLAND UNIT 3	50-R3 *	(15)	4,059,676.06	586,800	4,081,827	3.59	145,936	28.0
WHEATLAND UNIT 4	50-R3 *	(15)	4,059,676.06	586,801	4,081,826	3.59	145,936	28.0
TOTAL ACCOUNT 344			166,462,119.26	50,591,709	140,839,724	3.75	6,247,125	22.5

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SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2009

	ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL RATE (7)=(8)/(4)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	COMPOSITE REMAINING LIFE (9)=(6)/(8)
3450	ACCESSORY ELECTRIC EQUIPMENT								
	NOBLESVILLE	45-S2 *	(10)	2,797,278.48	1,785,558	1,291,449	1.85	51,811	24.9
	NOBLESVILLE UNIT 3	45-S2 *	(10)	794,893.28	205,315	669,068	3.31	26,290	25.4
	NOBLESVILLE UNIT 4	45-S2 *	(10)	794,893.29	205,315	669,068	3.31	26,290	25.4
	NOBLESVILLE UNIT 5	45-S2 *	(10)	794,893.30	205,315	669,068	3.31	26,290	25.4
	CAYUGA COMBUSTION TURBINE UNIT 4	45-S2 *	(10)	4,733,703.60	2,749,987	2,457,087	2.69	127,463	19.3
	MADISON UNITS 1 THRU 8	45-S2 *	(10)	11,687,765.24	4,016,794	8,839,747	2.98	348,403	25.4
	CADIZ UNITS 1 THRU 3	45-S2 *	(10)	4,485,811.46	1,328,960	3,605,433	3.04	136,510	26.4
	MIAMI-WABASH PEAKING STATION	45-S2 *	(10)	2,981,001.25	3,279,101	0	-	0	-
	CONNERSVILLE PEAKING STATION	45-S2 *	(10)	749,826.86	819,335	5,474	0.14	1,027	5.3
	WABASH RIVER - DIESEL	45-S2 *	(10)	155,067.02	170,574	0	-	0	-
	CAYUGA	45-S2 *	(10)	199,728.79	219,702	0	-	0	-
	WHEATLAND COMMON	45-S2 *	(10)	645,872.04	116,114	594,345	3.35	21,636	27.5
	WHEATLAND UNIT 1	45-S2 *	(10)	502,964.25	86,761	466,500	3.37	16,945	27.5
	WHEATLAND UNIT 2	45-S2 *	(10)	461,667.00	84,076	423,758	3.34	15,437	27.5
	WHEATLAND UNIT 3	45-S2 *	(10)	484,272.23	85,546	447,154	3.36	16,262	27.5
	WHEATLAND UNIT 4	45-S2 *	(10)	496,277.13	86,327	459,578	3.37	16,701	27.5
	TOTAL ACCOUNT 345			32,765,915.22	15,444,780	20,597,729	2.54	831,065	24.8
3460	MISCELLANEOUS POWER PLANT EQUIPMENT								
	NOBLESVILLE	45-R2 *	(5)	3,417,963.78	378,616	3,210,249	4.39	150,160	21.4
	NOBLESVILLE UNIT 3	45-R2 *	(5)	1,877,902.68	161,257	1,810,540	4.11	77,266	23.4
	NOBLESVILLE UNIT 4	45-R2 *	(5)	1,879,613.45	161,338	1,812,256	4.11	77,340	23.4
	NOBLESVILLE UNIT 5	45-R2 *	(5)	1,883,507.33	163,927	1,813,756	4.11	77,379	23.4
	CAYUGA COMBUSTION TURBINE UNIT 4	45-R2 *	(5)	2,614,801.02	187,449	2,558,093	5.07	132,569	19.3
	MADISON UNITS 1 THRU 8	45-R2 *	(5)	270,170.06	4,454	279,224	4.47	12,068	23.1
	MIAMI-WABASH PEAKING STATION	45-R2 *	(5)	48,404.76	13,032	37,794	31.73	15,361	2.5
	CONNERSVILLE PEAKING STATION	45-R2 *	(5)	319,587.06	65,327	270,240	15.63	49,946	5.4
	CAYUGA	45-R2 *	(5)	311.15	110	217	13.82	43	5.0
	WHEATLAND COMMON	45-R2 *	(5)	2,094,798.14	124,326	2,075,213	4.03	84,372	24.6
	WHEATLAND UNIT 1	45-R2 *	(5)	525,000.00	32,496	518,754	4.01	21,045	24.6
	WHEATLAND UNIT 2	45-R2 *	(5)	525,000.00	32,496	518,754	4.01	21,045	24.6
	WHEATLAND UNIT 3	45-R2 *	(5)	525,000.00	32,496	518,754	4.01	21,045	24.6
	WHEATLAND UNIT 4	45-R2 *	(5)	525,000.00	32,497	518,753	4.01	21,045	24.6
	TOTAL ACCOUNT 346			16,507,059.43	1,389,821	15,942,597	4.61	760,684	21.0
	TOTAL OTHER PRODUCTION PLANT			**793,776,632.21**	**231,956,202**	**641,998,942**	3.43	**27,226,418**	
	TRANSMISSION PLANT								
3500	LAND AND LAND RIGHTS	NONDEPRECIABLE		4,976,874.09					
3501	RIGHTS OF WAY	75-R4	0	31,491,424.16	16,189,630	15,301,794	1.24	390,531	39.2
3520	STRUCTURES AND IMPROVEMENTS	75-R4	(10)	18,441,377.28	6,361,434	13,924,083	1.43	263,864	52.8
3530	STATION EQUIPMENT	60-R2	(15)	454,007,226.00	161,689,967	360,418,345	2.20	9,993,080	36.1
3532	STATION EQUIPMENT - SB29	20-SQ	(10)	3,612,895.12	750,014	3,224,171	5.50 **	198,709	16.2
3535	STATION EQUIPMENT - ELECTRONICS	20-S2.5	0	12,315,053.79	673,166	11,641,887	6.23	766,949	15.2
3540	TOWERS AND FIXTURES	70-R3	(10)	70,877,108.10	51,289,239	26,675,581	1.04	734,006	36.3
3550	POLES AND FIXTURES	55-R1	(35)	167,630,813.59	75,112,546	151,189,052	2.92	4,890,117	30.9
3560	OVERHEAD CONDUCTORS AND DEVICES	65-R2	(45)	193,981,990.77	80,997,766	200,276,123	2.79	5,412,137	37.0
3570	UNDERGROUND CONDUIT	65-R3	0	102,531.54	79,402	23,128	0.42	426	54.3
3580	UNDERGROUND CONDUCTORS AND DEVICES	30-R3	0	817,290.46	58,180	759,110	3.85	31,448	24.1
	TOTAL TRANSMISSION PLANT			**958,254,584.90**	**393,201,344**	**783,433,274**	2.37	**22,681,267**	
	DISTRIBUTION PLANT								
3600	LAND AND LAND RIGHTS	NONDEPRECIABLE		14,394,201.75					
3601	RIGHTS OF WAY	70-R4	0	1,697,218.85	845,484	851,735	1.11	18,854	45.2
3610	STRUCTURES AND IMPROVEMENTS	60-R2.5	(10)	14,566,490.19	5,351,831	10,671,302	1.86	271,467	39.3
3620	STATION EQUIPMENT	50-R1.5	(20)	364,643,346.87	138,367,820	299,204,199	2.78	10,141,953	29.5
3635	STATION EQUIPMENT - ELECTRONICS	20-S2.5	0	4,295,659.75	315,630	3,980,030	5.97	256,568	15.5

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SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
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	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL RATE	CALCULATED ANNUAL ACCRUAL AMOUNT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(8)/(4)	(8)	(9)=(6)/(8)
3640	POLES, TOWERS AND FIXTURES	48-R0.5	(35)	336,721,639.87	188,970,376	265,603,838	3.00	10,085,126	26.3
3650	OVERHEAD CONDUCTORS AND DEVICES	48-R0.5	(40)	252,254,542.19	89,288,508	263,867,845	4.19	10,563,115	25.0
3660	UNDERGROUND CONDUIT	65-R3	(15)	14,974,111.74	3,595,184	13,625,041	1.99	298,178	45.7
3670	UNDERGROUND CONDUCTORS AND DEVICES	50-R2.5	(10)	382,966,587.03	100,277,004	320,986,241	2.58	9,898,402	32.4
3680	LINE TRANSFORMERS	40-R1	(10)	399,550,410.75	199,835,203	239,670,245	2.66	10,637,343	22.5
3690	SERVICES	40-R0.5	(30)	15,508,149.50	4,399,887	15,760,708	4.21	652,994	24.1
3691	SERVICES - UNDERGROUND	40-R0.5	(25)	150,394,723.38	93,075,554	94,917,850	2.80	4,206,308	22.6
3692	SERVICES - OVERHEAD	40-R0.5	(35)	41,308,066.72	36,535,031	19,230,861	2.07	854,967	22.5
3700	METERS	35-S0.5	(1)	142,877,479.53	68,961,812	75,344,445	2.78	3,978,168	18.9
3710	INSTALLATIONS ON CUSTOMER PREMISES	16-L0	(5)	17,550,560.72	14,470,544	3,957,546	2.86	501,308	7.9
3730	STREET LIGHTING & SIGNAL SYSTEM	27-R0.5	(10)	36,118,468.86	21,971,968	17,758,349	3.28	1,185,483	15.0
	TOTAL DISTRIBUTION PLANT			**2,189,821,657.70**	**966,261,836**	**1,645,430,235**	2.90	**63,550,234**	
	GENERAL PLANT								
3890	LAND AND LAND RIGHTS	NONDEPRECIABLE		2,218,781.34					
3900	STRUCTURES AND IMPROVEMENTS - MAJOR	60-R1.5 *	0	96,050,652.85	52,808,273	43,242,387	4.57	4,392,478	9.8
3900	STRUCTURES AND IMPROVEMENTS - MINOR	50-R3	(5)	14,061,105.60	5,753,569	9,010,590	2.25	315,852	28.5
	TOTAL ACCOUNT 3900			110,111,758.45	58,561,842	52,252,977	4.28	4,708,330	11.1
3910	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	8,458,003.67	5,146,233	3,311,769	11.04	934,106	3.5
3911	OFFICE FURNITURE AND EQUIPMENT - INFO. SYSTEM	5-SQ	0	226,314.15	63,698	162,616	18.45	41,758	3.9
3920	TRANSPORTATION EQUIPMENT	25-S1.5	5	4,823,489.10	1,909,801	2,672,513	3.87	186,884	14.3
3922	TRANSPORTATION EQUIPMENT - HELICOPTER	8-S2.5	50	4,907,030.78	1,103,790	1,349,725	6.13	300,791	4.5
3930	STORES EQUIPMENT	20-SQ	0	233,040.82	91,289	141,751	7.19	16,767	8.5
3940	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	15,077,182.68	3,723,547	11,353,637	4.14	623,646	18.2
3950	LABORATORY EQUIPMENT	20-SQ	0	3,005,827.08	1,725,820	1,280,007	7.73	232,288	5.5
3960	POWER OPERATED EQUIPMENT	22-R0.5	0	1,037,868.50	285,306	752,562	6.86	71,186	10.6
3970	COMMUNICATION EQUIPMENT	20-SQ	0	88,294,140.69	43,887,428	44,406,710	3.44	3,041,012	14.6
3980	MISCELLANEOUS EQUIPMENT	15-SQ	0	339,782.30	(42,057)	381,840	39.38	133,804	2.9
	TOTAL GENERAL PLANT			**238,733,219.56**	**116,456,697**	**118,066,107**	4.31	**10,290,572**	
	TOTAL ELECTRIC PLANT			**8,575,668,942.88**	**3,593,733,781**	**6,183,375,179**	3.46	**297,033,631**	

* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.
** Annual accrual rate previously approved via settlement for SB29 assets. Therefore, annual accrual amount is based on accrual rate multiplied by original cost.

ENTERGY TEXAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	STEAM PRODUCTION PLANT									
311.0	STRUCTURES AND IMPROVEMENTS									
	SABINE UNIT 1	65-R2	*	(26)	1,652,592.72	877,366	1,204,902	79,386	4.80	15.2
	SABINE UNIT 2	65-R2	*	(26)	575,218.66	495,312	229,464	15,610	2.71	14.7
	SABINE UNIT 3	65-R2	*	(26)	1,322,129.22	1,008,618	657,265	43,732	3.31	15.0
	SABINE UNIT 4	65-R2	*	(26)	6,495,531.26	5,384,358	2,800,012	185,762	2.86	15.1
	SABINE UNIT 5	65-R2	*	(26)	8,542,692.31	5,919,890	4,843,901	318,734	3.73	15.2
	BIG CAJUN COMMON	65-R2	*	(28)	62,905.54	9,661	70,858	2,388	3.80	29.7
	BIG CAJUN UNIT 3	65-R2	*	(28)	19,485,263.89	13,648,410	11,292,728	406,806	2.09	27.8
	LEWIS CREEK COMMON	65-R2	*	(32)	10,968,849.24	9,088,724	5,390,158	360,757	3.29	14.9
	LEWIS CREEK UNIT 1	65-R2	*	(32)	1,634,944.66	1,534,232	623,895	42,468	2.60	14.7
	LEWIS CREEK UNIT 2	65-R2	*	(32)	1,422,371.85	1,326,357	551,174	37,235	2.62	14.8
	NELSON GAS AND OIL COMMON	65-R2	*	(15)	2,764,788.50	566,421	2,613,087	99,909	3.61	26.2
	NELSON UNIT 6	65-R2	*	(15)	28,689,319.05	19,992,817	12,999,900	480,158	1.67	27.1
	SPINDLETOP FACILITY	65-R2	*	(5)	1,647,952.43	314,519	1,415,831	46,030	2.79	30.8
	SABINE COMMON	65-R2	*	(26)	23,517,614.73	17,243,072	12,389,121	818,298	3.48	15.1
	SYSTEM REPAIR SHOP	65-R2	*	(5)	568,325.78	582,658	14,084	587	0.10	24.0
	TOTAL ACCOUNT 311				109,350,499.84	77,992,415	57,096,380	2,937,860	2.69	19.4
312.0	BOILER PLANT EQUIPMENT									
	SABINE UNIT 1	55-R2	*	(26)	12,972,582.31	8,985,739	7,359,712	516,421	3.98	14.3
	SABINE UNIT 2	55-R2	*	(26)	12,123,161.79	7,404,198	7,870,984	554,376	4.57	14.2
	SABINE UNIT 3	55-R2	*	(26)	28,490,651.85	11,665,900	24,232,321	1,655,696	5.81	14.6
	SABINE UNIT 4	55-R2	*	(26)	39,330,618.37	18,326,712	31,229,866	2,107,698	5.36	14.8
	SABINE UNIT 5	55-R2	*	(26)	74,944,060.92	51,337,824	43,091,692	2,935,720	3.92	14.7
	BIG CAJUN COMMON	55-R2	*	(28)	1,049,283.95	159,412	1,183,671	42,173	4.02	28.1
	BIG CAJUN UNIT 3	55-R2	*	(28)	51,685,965.57	30,912,603	35,245,436	1,385,957	2.68	25.4
	LEWIS CREEK COMMON	55-R2	*	(32)	3,272,855.94	2,253,139	2,067,029	142,978	4.37	14.5
	LEWIS CREEK UNIT 1	55-R2	*	(32)	18,811,294.68	8,905,273	15,925,634	1,069,381	5.68	14.9
	LEWIS CREEK UNIT 2	55-R2	*	(32)	18,842,014.05	8,626,408	16,245,052	1,088,076	5.77	14.9
	NELSON GAS AND OIL COMMON	55-R2	*	(15)	2,659,982.81	427,959	2,631,020	119,848	4.51	22.0
	NELSON UNIT 6	55-R2	*	(15)	98,643,166.32	65,695,199	47,744,443	1,938,618	1.97	24.6
	SABINE COMMON	55-R2	*	(26)	23,959,157.00	16,533,521	13,655,017	937,236	3.91	14.6
	TOTAL ACCOUNT 312				386,784,795.56	231,233,887	248,481,877	14,494,178	3.75	17.1
314.0	TURBOGENERATOR UNITS									
	SABINE UNIT 1	50-S2.5	*	(26)	13,707,313.01	13,082,946	4,188,270	328,059	2.39	12.8
	SABINE UNIT 2	50-S2.5	*	(26)	10,850,111.36	9,700,343	3,970,797	348,500	3.21	11.4
	SABINE UNIT 3	50-S2.5	*	(26)	20,220,328.00	11,642,354	13,835,261	971,386	4.80	14.2
	SABINE UNIT 4	50-S2.5	*	(26)	24,962,805.16	20,061,252	11,391,886	870,306	3.49	13.1
	SABINE UNIT 5	50-S2.5	*	(26)	50,422,826.74	34,099,660	29,433,104	2,104,699	4.17	14.0
	BIG CAJUN COMMON	50-S2.5	*	(28)	2,861.18	151	3,511	107	3.74	32.8
	BIG CAJUN UNIT 3	50-S2.5	*	(28)	15,547,061.63	8,928,937	10,971,300	470,840	3.03	23.3
	LEWIS CREEK COMMON	50-S2.5	*	(32)	279,718.02	79,112	290,115	18,564	6.64	15.6
	LEWIS CREEK UNIT 1	50-S2.5	*	(32)	12,834,153.23	7,659,987	9,281,095	665,751	5.19	13.9
	LEWIS CREEK UNIT 2	50-S2.5	*	(32)	10,433,811.63	7,425,026	6,347,604	479,092	4.59	13.2
	NELSON GAS AND OIL COMMON	50-S2.5	*	(15)	51,652.54	20,569	38,832	1,219	2.36	31.9
	NELSON UNIT 6	50-S2.5	*	(15)	22,162,454.24	13,784,805	11,702,018	542,874	2.45	21.6
	SABINE COMMON	50-S2.5	*	(26)	986,163.93	280,221	962,344	62,961	6.38	15.3
	TOTAL ACCOUNT 314				182,461,260.67	126,765,363	102,416,137	6,864,358	3.76	14.9

ENTERGY TEXAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
315.0	ACCESSORY ELECTRIC EQUIPMENT								
	SABINE UNIT 1	50-S0.5 *	(26)	6,010,505.70	3,583,458	3,989,780	272,932	4.54	14.6
	SABINE UNIT 2	50-S0.5 *	(26)	3,485,293.10	3,101,443	1,290,026	90,883	2.61	14.2
	SABINE UNIT 3	50-S0.5 *	(26)	5,514,680.16	4,444,718	2,503,777	174,406	3.16	14.4
	SABINE UNIT 4	50-S0.5 *	(26)	7,102,088.68	5,351,261	3,597,372	263,149	3.71	13.7
	SABINE UNIT 5	50-S0.5 *	(26)	21,664,123.67	13,629,033	13,667,760	981,138	4.53	13.9
	BIG CAJUN COMMON	50-S0.5 *	(28)	86,091.02	16,372	93,824	3,585	4.16	26.2
	BIG CAJUN UNIT 3	50-S0.5 *	(28)	11,594,683.57	7,769,777	7,071,418	320,490	2.76	22.1
	LEWIS CREEK COMMON	50-S0.5 *	(32)	3,602,725.77	1,636,296	3,119,304	210,447	5.84	14.8
	LEWIS CREEK UNIT 1	50-S0.5 *	(32)	4,921,863.86	2,663,601	3,833,262	265,228	5.39	14.5
	LEWIS CREEK UNIT 2	50-S0.5 *	(32)	3,706,542.84	1,874,495	3,018,142	207,453	5.60	14.5
	NELSON GAS AND OIL COMMON	50-S0.5 *	(15)	261,813.13	55,034	246,051	10,801	4.13	22.8
	NELSON UNIT 6	50-S0.5 *	(15)	20,136,487.33	13,122,443	10,034,521	466,812	2.32	21.5
	SABINE COMMON	50-S0.5 *	(26)	6,412,363.08	2,023,282	6,056,295	416,133	6.49	14.6
	SYSTEM REPAIR SHOP	50-S0.5 *	(5)	95,188.27	65,834	34,114	1,701	1.79	20.1
	TOTAL ACCOUNT 315			94,594,450.18	59,337,047	58,555,646	3,685,158	3.90	15.9
316.0	MISCELLANEOUS POWER PLANT EQUIPMENT								
	SABINE UNIT 2	50-R1.5 *	(26)	130,126.75	10,082	153,877	10,290	7.91	15.0
	SABINE UNIT 4	50-R1.5 *	(26)	21,805.42	1,096	26,379	1,775	8.14	14.9
	BIG CAJUN COMMON	50-R1.5 *	(28)	273,453.13	78,705	271,314	10,575	3.87	25.7
	BIG CAJUN UNIT 3	50-R1.5 *	(28)	738,631.26	445,314	500,134	20,014	2.71	25.0
	LEWIS CREEK COMMON	50-R1.5 *	(32)	937,204.50	794,000	443,113	29,961	3.20	14.8
	NELSON GAS AND OIL COMMON	50-R1.5 *	(15)	164,664.19	21,048	168,317	6,755	4.10	24.9
	NELSON UNIT 6	50-R1.5 *	(15)	1,356,200.10	868,265	691,364	30,117	2.22	23.0
	SABINE COMMON	50-R1.5 *	(26)	3,985,871.03	1,831,188	3,191,007	218,889	5.49	14.6
	SYSTEM LAB	50-R1.5 *	(5)	201,819.92	117,994	93,917	4,628	2.29	20.3
	SYSTEM REPAIR SHOP	50-R1.5 *	(5)	56,274.69	59,088	0	0	-	-
	SYSTEM MAINTENANCE MANAGEMENT	50-R1.5 *	(5)	2,082,313.01	1,458,305	728,124	36,117	1.73	20.2
	SYSTEM PRODUCTION TRAINING	50-R1.5 *	(5)	775,377.71	591,559	222,588	11,037	1.42	20.2
	TOTAL ACCOUNT 316			10,723,741.71	6,276,644	6,490,134	380,158	3.55	17.1
	TOTAL STEAM PRODUCTION PLANT			**783,914,747.96**	**501,605,356**	**473,040,174**	**28,361,712**	**3.62**	**16.7**
	HYDRAULIC PRODUCTION PLANT								
334.0	ACCESSORY ELECTRIC EQUIPMENT								
	TOLEDO BEND COMMON	45-S3 *	0	218,537.75	218,538	0	0	-	-
335.1	MISCELLANEOUS POWER PLANT EQUIPMENT								
	TOLEDO BEND COMMON	40-R2.5 *	0	37,269.34	33,053	4,216	435	1.17	9.7
	TOTAL HYDRAULIC PRODUCTION PLANT			**255,807.09**	**251,591**	**4,216**	**435**	**0.17**	**9.7**
	TRANSMISSION PLANT								
350.0	LAND RIGHTS	65-R4	0	31,234,089.43	14,025,676	17,208,414	460,577	1.47	37.4
352.0	STRUCTURES AND IMPROVEMENTS	50-R2.5	(10)	21,520,151.63	6,610,622	17,061,546	528,605	2.46	32.3
353.0	STATION EQUIPMENT	45-R2.5	(10)	337,948,069.54	114,009,798	257,733,076	10,054,640	2.98	25.6
354.0	TOWERS AND FIXTURES	50-S4	(20)	25,429,920.05	20,643,860	9,872,045	425,000	1.67	23.2
355.0	POLES AND FIXTURES	55-R3	(25)	171,934,687.70	38,668,500	176,249,863	4,746,496	2.76	37.1
356.0	OVERHEAD CONDUCTORS AND DEVICES	53-R2.5	(40)	164,622,564.68	38,506,382	191,965,210	5,882,043	3.57	32.6

ENTERGY TEXAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
358.0	UNDERGROUND CONDUCTORS AND DEVICES	40-R2.5	0	321,997.60	39,478	282,520	9,471	2.94	29.8
359.0	ROADS AND TRAILS	65-R4	0	202,758.21	124,702	78,057	1,557	0.77	50.1
	TOTAL TRANSMISSION PLANT			**753,214,238.84**	**232,629,018**	**670,450,731**	**22,108,389**	**2.94**	**30.3**
	DISTRIBUTION PLANT								
360.2	LAND RIGHTS	55-R4	0	11,377,009.63	5,801,450	5,575,561	198,272	1.74	28.1
361.0	STRUCTURES AND IMPROVEMENTS	50-S1.5	(10)	7,428,830.49	3,074,442	5,097,273	173,492	2.34	29.4
362.0	STATION EQUIPMENT	40-R1.5	(10)	154,769,834.57	54,170,584	116,076,236	5,496,367	3.55	21.1
364.0	POLES, TOWERS AND FIXTURES	40-S0.5	(25)	168,927,973.32	75,498,362	135,661,606	6,622,935	3.92	20.5
365.0	OVERHEAD CONDUCTORS AND DEVICES	36-R0.5	(50)	167,287,943.10	25,262,851	225,669,062	12,773,706	7.64	17.7
366.0	UNDERGROUND CONDUIT	50-R2	0	47,246,249.29	5,776,558	41,469,693	1,317,505	2.79	31.5
367.0	UNDERGROUND CONDUCTORS AND DEVICES	37-S0.5	(5)	102,506,209.61	27,457,164	80,174,357	4,036,187	3.94	19.9
368.0	LINE TRANSFORMERS	29-S0	5	230,541,196.80	17,001,471	202,012,664	14,015,230	6.08	14.4
369.1	SERVICES - OVERHEAD	27-L4	(20)	58,239,824.58	9,347,098	60,540,693	3,942,743	6.77	15.4
369.2	SERVICES - UNDERGROUND	27-L4	(20)	56,596,294.80	17,012,935	50,902,615	3,536,345	6.25	14.4
370.0	METERS	29-R2	0	57,739,294.46	15,542,202	42,197,091	2,915,209	5.05	14.5
371.0	INSTALLATIONS ON CUSTOMER PREMISES	40-S2.5	(5)	41,613,854.68	13,961,610	29,732,936	1,264,047	3.04	23.5
373.0	STREET LIGHTING AND SIGNAL SYSTEMS	46-R1.5	(5)	21,416,138.07	2,072,005	20,414,938	742,173	3.47	27.5
373.2	NONROADWAY LIGHTING	40-S0.5	(5)	129,765.37	101,713	34,541	1,270	0.98	27.2
	TOTAL DISTRIBUTION PLANT			**1,125,820,418.77**	**272,080,445**	**1,015,559,266**	**57,035,481**	**5.07**	**17.8**
	GENERAL PLANT								
390.0	STRUCTURES AND IMPROVEMENTS	44-R2.5	(10)	53,758,160.53	19,199,694	39,934,282	1,529,604	2.85	26.1
391.1	OFFICE FURNITURE AND EQUIPMENT	15-SQ	0	766,636.57	492,980	273,656	51,142	6.67	5.4
391.2	INFORMATION SYSTEMS								
	FULLY ACCRUED			69,726.13	69,726	0	0	-	-
	AMORTIZED	5-SQ	0	11,573,956.16	4,132,011	7,441,945	2,314,768	20.00	3.2
	TOTAL ACCOUNT 391.2			11,643,682.29	4,201,737	7,441,945	2,314,768	19.88	3.2
391.3	DATA HANDLING EQUIPMENT	15-SQ	0	796,102.95	587,950	208,152	53,094	6.67	3.9
392.0	TRANSPORTATION EQUIPMENT	8-L0	0	91,988.15	28,829	63,159	15,170	16.49	4.2
393.0	STORES EQUIPMENT	15-SQ	0	3,214,625.34	1,672,977	1,541,648	214,288	6.67	7.2
394.0	TOOLS, SHOP AND GARAGE EQUIPMENT	15-SQ	0	7,328,378.43	2,699,030	4,629,350	489,156	6.67	9.5
395.0	LABORATORY EQUIPMENT	10-SQ	0	451,089.76	315,573	135,517	45,099	10.00	3.0
396.0	POWER OPERATED EQUIPMENT	16-S0	0	526,899.10	388,360	138,540	32,334	6.14	4.3
397.1	COMMUNICATION EQUIPMENT	10-SQ	0	3,921,189.19	1,050,003	2,871,187	392,019	10.00	7.3
397.2	COMMUNICATION EQUIPMENT - MICROWAVE								
	FULLY ACCRUED			12,850,720.09	12,850,720	0	0	-	-
	AMORTIZED	15-SQ	0	26,810,757.93	21,649,980	5,160,776	1,788,612	6.67	2.9
	TOTAL ACCOUNT 397.2			39,661,478.02	34,500,700	5,160,776	1,788,612	4.51	2.9
398.0	MISCELLANEOUS EQUIPMENT	10-SQ	0	727,915.26	333,504	394,411	72,786	10.00	5.4
	TOTAL GENERAL PLANT			**122,888,145.59**	**65,471,337**	**62,792,623**	**6,998,072**	**5.69**	**9.0**

ENTERGY TEXAS, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	UNRECOVERED RESERVE TO BE AMORTIZED								
391.1	OFFICE FURNITURE AND EQUIPMENT				(1,341,550)		134,155 **		
391.2	OFFICE FURNITURE AND EQUIPMENT - INFO SYS				(11,608,850)		1,160,885 **		
391.3	OFFICE FURNITURE AND EQUIPMENT - DATA HDLG EQ				3,475,400		(347,540) **		
393.0	STORES EQUIPMENT				(982,850)		98,285 **		
394.0	TOOLS, SHOP AND GARAGE EQUIPMENT				(660,550)		66,055 **		
395.0	LABORATORY EQUIPMENT				(2,414,400)		241,440 **		
397.1	COMMUNICATION EQUIPMENT				(2,024,700)		202,470 **		
397.2	COMMUNICATION EQUIPMENT - MICROWAVE				942,850		(94,285) **		
398.0	MISCELLANEOUS EQUIPMENT				(639,270)		63,927 **		
	TOTAL UNRECOVERED RESERVE TO BE AMORTIZED				**(15,253,920)**		**1,525,392**		
	TOTAL DEPRECIABLE PLANT			**2,786,093,358.25**	**1,056,783,827**	**2,221,847,010**	**116,029,481**	**4.16**	**19.1**
	NONDEPRECIABLE PLANT								
301.0	ORGANIZATION			1,346,898.53					
303.0	MISCELLANEOUS INTANGIBLE PLANT			82,762,118.69					
310.9	LAND			4,512,873.16					
350.1	LAND			9,240,349.98					
360.1	LAND			4,180,176.44					
389.1	LAND			5,297,291.24					
	TOTAL NONDEPRECIABLE PLANT			**107,339,708.04**					
	TOTAL ELECTRIC PLANT			**2,893,433,066.29**	**1,056,783,827**	**2,221,847,010**	**116,029,481**	**4.01**	**19.1**

* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.
** 10-year amortization of unrecovered reserve related to implementation of amortization accounting.

ENTERGY MISSISSIPPI, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	STEAM PRODUCTION PLANT									
310.2	LAND RIGHTS									
	BAXTER WILSON COMMON	70-R5	*	0	871.00	160	711	45	5.17	15.8
	DELTA COMMON	70-R5	*	0	748.00	200	548	84	11.23	6.5
	GERALD ANDRUS PIPELINES	70-R5	*	0	127,905.96	68,028	59,878	3,636	2.84	16.5
	GERALD ANDRUS	70-R5	*	0	3,976.00	823	3,153	194	4.88	16.3
	NATCHEZ	70-R5	*	0	39,938.00	39,938	0	0	-	-
	REX BROWN COMMON	70-R5	*	0	5,315.85	2,005	3,311	203	3.82	16.3
					178,754.81	111,154	67,601	4,162	2.33	16.2
311.0	STRUCTURES AND IMPROVEMENTS									
	BAXTER WILSON COMMON	60-R4	*	(25)	7,789,228.47	4,523,277	5,213,261	333,680	4.28	15.6
	BAXTER WILSON UNIT 1	60-R4	*	(25)	7,310,682.48	5,150,630	3,987,723	286,020	3.91	13.9
	BAXTER WILSON UNIT 2	60-R4	*	(25)	10,360,087.72	8,983,521	3,966,588	261,583	2.52	15.2
	DELTA COMMON	60-R4	*	(14)	4,771,868.74	4,962,687	477,246	77,038	1.61	6.2
	GERALD ANDRUS PIPELINES	60-R4	*	(30)	2,216,069.42	1,195,557	1,685,333	103,905	4.69	16.2
	GERALD ANDRUS	60-R4	*	(30)	26,655,814.52	22,005,477	12,647,084	821,444	3.08	15.4
	INDEPENDENCE COMMON	60-R4	*	(18)	1,225,805.89	252,517	1,193,933	38,639	3.15	30.9
	INDEPENDENCE UNIT 1	60-R4	*	(18)	16,207,382.71	9,916,431	9,208,281	316,034	1.95	29.1
	INDEPENDENCE UNIT 2	60-R4	*	(18)	3,755,238.67	2,744,063	1,687,120	56,714	1.51	29.7
	NATCHEZ	60-R4	*	(15)	5,433,992.76	6,249,091	0	0	-	-
	REX BROWN COMMON	60-R4	*	(26)	4,051,672.18	1,441,378	3,663,729	282,593	6.97	13.0
	REX BROWN UNIT 1	60-R4	*	(26)	662,987.77	835,365	0	0	-	-
	REX BROWN UNIT 3	60-R4	*	(26)	512,380.00	499,535	146,063	26,318	5.14	5.5
	REX BROWN UNIT 4	60-R4	*	(26)	1,195,934.16	1,382,207	124,670	20,470	1.71	6.1
	REX BROWN UNIT 5	60-R4	*	(26)	8,813.82	2,958	8,147	496	5.63	16.4
	TOTAL ACCOUNT 311				92,157,959.31	70,144,694	44,009,178	2,624,934	2.85	16.8
312.0	BOILER PLANT EQUIPMENT									
	BAXTER WILSON COMMON	70-R2.5	*	(25)	4,002,782.80	1,878,023	3,125,454	195,287	4.88	16.0
	BAXTER WILSON UNIT 1	70-R2.5	*	(25)	39,949,531.70	32,406,376	17,530,539	1,120,761	2.81	15.6
	BAXTER WILSON UNIT 2	70-R2.5	*	(25)	73,324,324.67	49,973,775	41,681,633	2,652,956	3.62	15.7
	DELTA COMMON	70-R2.5	*	(14)	390,115.69	257,384	187,348	29,081	7.45	6.4
	DELTA UNIT 1	70-R2.5	*	(14)	6,599,572.77	7,252,428	271,085	41,971	0.64	6.5
	DELTA UNIT 2	70-R2.5	*	(14)	6,574,265.49	7,146,160	348,501	53,966	0.82	6.5
	GERALD ANDRUS	70-R2.5	*	(30)	76,348,358.97	43,989,492	55,263,375	3,539,644	4.64	15.6
	INDEPENDENCE COMMON	70-R2.5	*	(18)	2,969,049.31	505,720	2,997,760	97,003	3.27	30.9
	INDEPENDENCE UNIT 1	70-R2.5	*	(18)	77,007,034.51	44,680,557	46,187,745	1,557,343	2.02	29.7
	INDEPENDENCE UNIT 2	70-R2.5	*	(18)	70,750,921.38	31,727,768	51,758,319	1,689,955	2.39	30.6
	NATCHEZ	70-R2.5	*	(15)	4,818,578.34	5,541,366	0	0	-	-
	REX BROWN COMMON	70-R2.5	*	(26)	1,707,007.92	302,101	1,848,727	115,881	6.79	16.0
	REX BROWN UNIT 1	70-R2.5	*	(26)	4,392,270.62	5,534,261	0	0	-	-
	REX BROWN UNIT 3	70-R2.5	*	(26)	2,672,088.21	3,229,844	136,988	21,763	0.81	6.3
	REX BROWN UNIT 4	70-R2.5	*	(26)	14,272,038.33	14,005,385	3,977,385	619,236	4.34	6.4
	TOTAL ACCOUNT 312				385,777,940.71	248,430,640	225,314,859	11,734,847	3.04	19.2
314.0	TURBOGENERATOR UNITS									
	BAXTER WILSON COMMON	70-R3	*	(25)	733,048.86	461,529	454,781	28,219	3.85	16.1
	BAXTER WILSON UNIT 1	70-R3	*	(25)	20,603,620.40	14,680,215	11,074,311	701,467	3.40	15.8
	BAXTER WILSON UNIT 2	70-R3	*	(25)	34,731,564.60	20,439,322	22,975,134	1,440,458	4.15	15.9
	DELTA COMMON	70-R3	*	(14)	172,309.19	109,733	86,699	13,404	7.78	6.5

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

ACCOUNT (1)	SURVIVOR CURVE (2)	NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
DELTA UNIT 1	70-R3 *	(14)	3,594,574.01	3,932,957	164,858	26,438	0.74	6.2
DELTA UNIT 2	70-R3 *	(14)	3,556,339.00	3,890,235	163,991	26,360	0.74	6.2
GERALD ANDRUS	70-R3 *	(30)	26,976,752.68	21,340,133	13,729,646	875,878	3.25	15.7
INDEPENDENCE COMMON	70-R3 *	(18)	31,030.94	8,919	27,697	902	2.91	30.7
INDEPENDENCE UNIT 1	70-R3 *	(18)	22,511,103.57	13,462,584	13,100,520	432,237	1.92	30.3
INDEPENDENCE UNIT 2	70-R3 *	(18)	23,208,315.48	12,758,303	14,627,509	469,418	2.02	31.2
NATCHEZ	70-R3 *	(15)	3,613,415.33	4,155,428	0	0	-	-
REX BROWN COMMON	70-R3 *	(26)	265,020.59	117,992	215,934	13,293	5.02	16.2
REX BROWN UNIT 1	70-R3 *	(26)	1,016,033.61	1,280,202	0	0	-	-
REX BROWN UNIT 3	70-R3 *	(26)	2,215,686.60	2,736,172	55,593	8,763	0.40	6.3
REX BROWN UNIT 4	70-R3 *	(26)	10,154,566.33	10,961,203	1,833,553	283,313	2.79	6.5
REX BROWN UNIT 5	70-R3 *	(26)	1,037,396.77	140,666	1,166,454	71,562	6.90	16.3
TOTAL ACCOUNT 314			154,420,777.96	110,475,593	79,676,680	4,391,712	2.84	18.1
315.0 ACCESSORY ELECTRIC EQUIPMENT								
BAXTER WILSON COMMON	70-R2.5 *	(25)	8,087,125.88	3,713,392	6,395,519	411,611	5.09	15.5
BAXTER WILSON UNIT 1	70-R2.5 *	(25)	5,305,518.03	1,906,875	4,725,023	298,869	5.63	15.8
BAXTER WILSON UNIT 2	70-R2.5 *	(25)	6,610,843.94	4,475,472	3,788,082	239,696	3.63	15.8
DELTA COMMON	70-R2.5 *	(14)	1,813,972.49	1,139,507	928,421	147,827	8.15	6.3
DELTA UNIT 1	70-R2.5 *	(14)	787,467.71	409,132	488,581	75,605	9.60	6.5
DELTA UNIT 2	70-R2.5 *	(14)	1,447,744.85	1,279,232	371,198	57,460	3.97	6.5
GERALD ANDRUS	70-R2.5 *	(30)	15,087,452.07	8,406,465	11,207,222	712,164	4.72	15.7
INDEPENDENCE COMMON	70-R2.5 *	(18)	286,799.73	16,327	322,097	10,232	3.57	31.5
INDEPENDENCE UNIT 1	70-R2.5 *	(18)	11,984,816.70	7,183,363	6,958,722	234,879	1.96	29.6
INDEPENDENCE UNIT 2	70-R2.5 *	(18)	5,935,680.61	3,321,519	3,682,584	120,777	2.03	30.5
NATCHEZ	70-R2.5 *	(15)	1,320,577.04	1,518,664	0	0	-	-
REX BROWN COMMON	70-R2.5 *	(26)	1,352,057.73	433,276	1,270,316	81,067	6.00	15.7
REX BROWN UNIT 1	70-R2.5 *	(26)	880,645.72	1,109,613	0	0	-	-
REX BROWN UNIT 3	70-R2.5 *	(26)	1,398,947.12	1,392,323	370,350	57,395	4.10	6.5
REX BROWN UNIT 4	70-R2.5 *	(26)	1,693,260.77	1,484,913	648,596	100,541	5.94	6.5
REX BROWN UNIT 5	70-R2.5 *	(26)	1,166,554.97	1,067,827	402,032	26,258	2.25	15.3
TOTAL ACCOUNT 315			65,159,465.36	38,857,900	41,558,743	2,574,381	3.95	16.1
316.0 MISCELLANEOUS POWER PLANT EQUIPMENT								
BAXTER WILSON COMMON	65-R2 *	(25)	2,478,546.13	756,776	2,341,410	151,995	6.13	15.4
BAXTER WILSON UNIT 1	65-R2 *	(25)	292,843.62	36,577	329,480	21,682	7.40	15.2
BAXTER WILSON UNIT 2	65-R2 *	(25)	308,123.79	264,023	121,132	7,950	2.58	15.2
DELTA COMMON	65-R2 *	(14)	1,176,019.78	780,125	560,538	88,181	7.50	6.4
DELTA UNIT 1	65-R2 *	(14)	68,426.39	35,647	42,359	6,622	9.68	6.4
DELTA UNIT 2	65-R2 *	(14)	445,701.21	293,155	214,944	33,484	7.51	6.4
GERALD ANDRUS	65-R2 *	(30)	1,817,912.24	1,226,993	1,136,294	73,383	4.04	15.5
INDEPENDENCE COMMON	65-R2 *	(18)	1,175,754.87	292,937	1,094,454	37,601	3.20	29.1
INDEPENDENCE UNIT 1	65-R2 *	(18)	2,108,015.32	1,231,094	1,256,365	45,159	2.14	27.8
INDEPENDENCE UNIT 2	65-R2 *	(18)	297,111.04	159,011	191,581	6,652	2.24	28.8
NATCHEZ	65-R2 *	(15)	454,996.27	523,246	0	0	-	-
REX BROWN COMMON	65-R2 *	(26)	1,666,372.75	276,800	1,822,830	119,525	7.17	15.3
REX BROWN UNIT 1	65-R2 *	(26)	33,880.00	42,689	0	0	-	-
REX BROWN UNIT 3	65-R2 *	(26)	96,655.98	87,472	34,314	5,376	5.56	6.4
REX BROWN UNIT 4	65-R2 *	(26)	934,598.73	207,300	970,294	151,302	16.19	6.4
TOTAL ACCOUNT 316			13,354,958.12	6,213,845	10,115,995	748,912	5.61	13.5
TOTAL STEAM PRODUCTION PLANT			**711,049,856.27**	**474,233,826**	**400,743,056**	**22,078,948**	**3.11**	**18.2**

ENTERGY MISSISSIPPI, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE		NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	OTHER PRODUCTION PLANT									
341.0	STRUCTURES AND IMPROVEMENTS									
	ATTALA COMMON	50-S1.5	*	0	1,794,997.56	86,556	1,708,442	79,237	4.41	21.6
	ATTALA UNIT 1	50-S1.5	*	0	7,996,842.61	486,763	7,510,080	349,200	4.37	21.5
	TOTAL ACCOUNT 341				9,791,840.17	573,319	9,218,522	428,437	4.38	21.5
342.0	FUEL HOLDERS, PRODUCERS AND ACCESSORIES									
	ATTALA UNIT 1	55-S2	*	(20)	2,100,254.78	162,553	2,357,753	106,253	5.06	22.2
343.0	PRIME MOVERS									
	ATTALA COMMON	45-S1.5	*	(10)	355,743.48	26,360	364,958	17,264	4.85	21.1
	ATTALA UNIT 1	45-S1.5	*	(10)	19,602,949.53	1,333,711	20,229,533	955,263	4.87	21.2
	TOTAL ACCOUNT 343				19,958,693.01	1,360,071	20,594,491	972,527	4.87	21.2
344.0	GENERATORS									
	ATTALA COMMON	40-S1.5	*	(10)	67,213.94	3,226	70,709	3,389	5.04	20.9
	ATTALA UNIT 1	40-S1.5	*	(10)	48,265,403.45	3,650,763	49,441,181	2,394,246	4.96	20.7
	TOTAL ACCOUNT 344				48,332,617.39	3,653,989	49,511,890	2,397,635	4.96	20.7
345.0	ACCESSORY ELECTRIC EQUIPMENT									
	ATTALA COMMON	45-S2.5	*	(5)	579,073.68	20,837	587,190	26,489	4.57	22.2
	ATTALA UNIT 1	45-S2.5	*	(5)	11,303,177.20	769,253	11,099,083	502,904	4.45	22.1
	TOTAL ACCOUNT 345				11,882,250.88	790,090	11,686,273	529,393	4.46	22.1
346.0	MISCELLANEOUS POWER PLANT EQUIPMENT									
	ATTALA COMMON	35-R2.5	*	0	1,009,356.50	47,860	961,497	50,116	4.97	19.2
	ATTALA UNIT 1	35-R2.5	*	0	84,945.32	1,396	83,549	4,425	5.21	18.9
	TOTAL ACCOUNT 346				1,094,301.82	49,256	1,045,046	54,541	4.98	19.2
	TOTAL OTHER PRODUCTION PLANT				**93,159,958.05**	**6,589,278**	**94,413,975**	**4,488,786.00**	**4.82**	**21.0**
	TRANSMISSION PLANT									
350.2	LAND RIGHTS	75-R3		0	23,443,947.00	7,310,650	16,133,297	336,179	1.43	48.0
352.0	STRUCTURES AND IMPROVEMENTS	70-R4		(5)	28,023,528.74	7,697,121	21,727,587	440,683	1.57	49.3
353.0	STATION EQUIPMENT	59-R2		(5)	309,117,470.91	91,440,795	233,132,551	6,364,010	2.06	36.6
354.0	TOWERS AND FIXTURES	65-R2.5		(20)	43,297,584.02	22,814,766	29,142,337	830,443	1.92	35.1
355.0	POLES AND FIXTURES	58-R2		(25)	142,288,157.00	42,233,775	135,626,420	3,621,212	2.54	37.5
356.0	OVERHEAD CONDUCTORS AND DEVICES	72-R2		(20)	133,249,532.62	46,198,325	113,701,112	2,544,881	1.91	44.7
357.0	UNDERGROUND CONDUIT	50-S2.5		0	1,311.19	189	1,122	29	2.21	38.7
358.0	UNDERGROUND CONDUCTORS AND DEVICES	45-R2.5		0	6,310.08	1,042	5,268	163	2.58	32.3
	TOTAL TRANSMISSION PLANT				**679,427,841.56**	**217,696,663**	**549,469,694**	**14,137,600**	**2.08**	**38.9**

ENTERGY MISSISSIPPI, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	DISTRIBUTION PLANT								
360.2	LAND RIGHTS	65-R4	0	2,469,062.21	350,189	2,118,874	46,926	1.90	45.2
361.0	STRUCTURES AND IMPROVEMENTS	60-R4	(5)	11,717,553.73	1,578,521	10,724,910	259,756	2.22	41.3
362.0	STATION EQUIPMENT	61-R2	(20)	201,067,494.47	34,524,184	206,756,807	5,534,332	2.75	37.4
364.0	POLES, TOWERS AND FIXTURES	30-R0.5	(15)	178,925,940.50	42,020,438	163,744,393	10,710,596	5.99	15.3
365.0	OVERHEAD CONDUCTORS AND DEVICES	35-R0.5	(10)	218,091,326.76	42,289,753	197,610,708	10,674,869	4.89	18.5
366.0	UNDERGROUND CONDUIT	52-R2	0	19,714,102.93	2,095,466	17,618,639	526,592	2.67	33.5
367.0	UNDERGROUND CONDUCTORS AND DEVICES	50-R1	(5)	52,214,791.67	7,375,493	47,450,040	1,649,780	3.16	28.8
368.0	LINE TRANSFORMERS	25-R1.5	(10)	268,754,169.54	57,739,095	237,890,491	17,705,253	6.59	13.4
369.1	SERVICES - OVERHEAD	36-S0	(20)	65,420,932.64	12,708,754	65,796,367	3,319,245	5.07	19.8
369.2	SERVICES - UNDERGROUND	36-S0	(20)	31,843,573.95	5,876,326	32,335,965	1,581,103	4.97	20.5
370.0	METERS	32-R1	0	49,156,670.11	9,437,845	39,718,826	2,341,745	4.76	17.0
371.0	INSTALLATIONS ON CUSTOMER PREMISES	35-L0	(10)	32,817,461.10	6,029,813	30,069,393	1,665,033	5.07	18.1
373.0	STREET LIGHTING AND SIGNAL SYSTEMS	17-L0	(20)	32,175,697.41	10,045,011	28,565,825	3,384,372	10.52	8.4
	TOTAL DISTRIBUTION PLANT			**1,164,368,777.02**	**232,070,888**	**1,080,401,238**	**59,399,602**	**5.10**	**18.2**
	GENERAL PLANT								
389.2	LAND RIGHTS	60-R4	0	814.41	2	812	20	2.46	40.6
390.0	STRUCTURES AND IMPROVEMENTS	46-S1	(10)	65,855,073.21	180,057	72,260,524	2,727,821	4.14	26.5
391.1	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	4,596,702.68	1,390,756	3,205,947	229,825	5.00	13.9
391.2	INFORMATION SYSTEMS								
	FULLY ACCRUED			3,730.13	3,730	0	0	-	-
	AMORTIZED	5-SQ	0	10,698,851.10	4,239,139	6,459,712	2,140,227	20.00	3.0
	TOTAL ACCOUNT 391.2			10,702,581.23	4,242,869	6,459,712	2,140,227	20.00	3.0
391.3	DATA HANDLING EQUIPMENT	15-SQ	0	349,826.13	172,342	177,484	23,344	6.67	7.6
392.0	TRANSPORTATION EQUIPMENT	11-S1	0	257,228.92	1,309	255,919	53,238	20.70	4.8
393.0	STORES EQUIPMENT	15-SQ	0	2,399,672.22	1,256,526	1,143,147	159,977	6.67	7.1
394.0	TOOLS, SHOP AND GARAGE EQUIPMENT	15-SQ	0	9,214,019.04	3,890,695	5,323,324	614,387	6.67	8.7
395.0	LABORATORY EQUIPMENT	10-SQ	0	18,823.60	14,119	4,705	1,882	10.00	2.5
396.0	POWER OPERATED EQUIPMENT	30-R2.5	0	1,289,641.36	6,526	1,283,115	112,294	8.71	11.4
397.1	MISCELLANEOUS COMMUNICATION EQUIPMENT	10-SQ	0	6,753,519.51	1,977,469	4,776,050	675,062	10.00	7.1
397.2	COMMUNICATION AND MICROWAVE EQUIPMENT								
	FULLY ACCRUED			3,569,937.28	3,569,937	0	0	-	-
	AMORTIZED	15-SQ	0	30,455,431.68	23,998,187	6,457,244	2,030,737	6.67	3.2
	TOTAL ACCOUNT 397.2			34,025,368.96	27,568,124	6,457,244	2,030,737	5.97	3.2
398.0	MISCELLANEOUS EQUIPMENT	10-SQ	0	1,257,837.80	508,699	749,138	125,759	10.00	6.0
399.0	OTHER TANGIBLE PROPERTY	40-R2.5	0	15,461,100.13	15,461,100	0	0	-	-
	TOTAL GENERAL PLANT			**152,182,209.20**	**56,670,593**	**102,097,121**	**8,894,573**	**5.84**	**11.5**

ENTERGY MISSISSIPPI, INC.

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION RATES AS OF DECEMBER 31, 2008

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	UNRECOVERED RESERVE TO BE AMORTIZED								
	STEAM PRODUCTION PLANT- NATCHEZ								
310.2	LAND RIGHTS				73,089		(7,309) **		
311.0	STRUCTURES AND IMPROVEMENTS				(2,341,838)		234,184 **		
312.0	BOILER PLANT EQUIPMENT				(2,493,323)		249,332 **		
314.0	TURBOGENERATOR UNITS				(1,726,974)		172,697 **		
315.0	ACCESSORY ELECTRIC EQUIPMENT				(624,956)		62,496 **		
316.0	MISCELLANEOUS POWER PLANT EQUIPMENT				(302,680)		30,268 **		
	TOTAL STEAM PRODUCTION PLANT - NATCHEZ				(7,416,682)		741,668		
	GENERAL PLANT								
391.1	OFFICE FURNITURE AND EQUIPMENT				(1,378,000)		137,800 **		
391.2	INFORMATION SYSTEMS				(4,202,000)		420,200 **		
391.3	DATA HANDLING EQUIPMENT				(170,750)		17,075 **		
393.0	STORES EQUIPMENT				(1,245,000)		124,500 **		
394.0	TOOLS, SHOP AND GARAGE EQUIPMENT				(3,854,300)		385,430 **		
395.0	LABORATORY EQUIPMENT				(13,990)		1,399 **		
397.1	MISCELLANEOUS COMMUNICATION EQUIPMENT				(1,959,000)		195,900 **		
397.2	COMMUNICATION AND MICROWAVE EQUIPMENT				(27,315,000)		2,731,500 **		
398.0	MISCELLANEOUS EQUIPMENT				(504,000)		50,400 **		
	TOTAL GENERAL PLANT				(40,642,040)		4,064,204		
	TOTAL UNRECOVERED RESERVE TO BE AMORTIZED				**(48,058,722)**		**4,805,872**		
	TOTAL DEPRECIABLE PLANT			**2,800,188,642.10**	**939,202,526**	**2,227,125,084**	**113,805,381**	**4.06**	**19.6**
	NONDEPRECIABLE PLANT								
303.0	MISCELLANEOUS INTANGIBLE PLANT			125,765,672.95					
310.9	LAND			2,249,492.29					
340.1	LAND			128,929.12					
350.1	LAND			7,399,540.30					
360.1	LAND			8,997,397.23					
389.1	LAND			6,073,946.77					
	TOTAL NONDEPRECIABLE PLANT			**150,614,978.66**					
	TOTAL ELECTRIC PLANT			**2,950,803,620.76**	**939,202,526**	**2,227,125,084**	**113,805,381**		

* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.
** 10-year amortization of unrecovered reserve related to implementation of amortization accounting.
*** Accrual rate for future additions in account 382 will be 20%.

MIDAMERICAN ENERGY COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK RESERVE AND
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2010

Depreciable Group (1)	Survivor Curve (2)	Net Salvage Percent (3)	Original Cost (4)	Book Reserve (5)	Future Accruals (6)	Annual Accrual Amount (7)	Composite Remaining Life (8)	Annual Accrual Rate Percent (9)
DEPRECIABLE PLANT								
STEAM PRODUCTION PLANT								
311.00 STRUCTURES AND IMPROVEMENTS								
LOUISA	110-R2.5 *	(8)	121,811,871.06	95,022,820	36,534,001	1,252,208	29.2	1.03
OTTUMWA	110-R2.5 *	(11)	46,119,305.02	39,600,263	11,592,166	396,172	29.3	0.86
RIVERSIDE	110-R2.5 *	(23)	10,903,091.33	10,037,472	3,373,330	227,121	14.9	2.08
NEAL 1	110-R2.5 *	(21)	3,781,578.03	3,495,019	1,080,690	72,874	14.8	1.93
NEAL 2	110-R2.5 *	(19)	18,376,028.50	14,798,500	7,068,974	474,476	14.9	2.58
NEAL 3	110-R2.5 *	(17)	12,962,208.38	14,689,167	476,617	19,304	24.7	0.15
NEAL 4	110-R2.5 *	(12)	23,199,959.74	22,837,630	3,146,325	107,338	29.3	0.46
WALTER SCOTT 1	110-R2.5 *	(17)	3,228,206.66	3,748,646	28,356	5,683	5.0	0.18
WALTER SCOTT 2	110-R2.5 *	(17)	5,407,517.15	4,511,469	1,815,326	364,124	5.0	6.73
WALTER SCOTT 3	110-R2.5 *	(11)	87,470,349.88	73,636,158	23,455,930	797,908	29.4	0.91
WALTER SCOTT 4	110-R2.5 *	(6)	148,608,659.02	17,394,920	140,130,259	3,571,995	39.2	2.40
TOTAL STRUCTURES AND IMPROVEMENTS			481,868,774.77	299,772,064	228,701,974	7,289,203		
312.00 BOILER PLANT EQUIPMENT								
LOUISA	65-R1 *	(8)	443,762,516.34	220,863,148	258,400,370	9,526,292	27.1	2.15
OTTUMWA	65-R1 *	(11)	147,978,072.60	99,095,190	65,160,471	2,402,344	27.1	1.62
RIVERSIDE	65-R1 *	(23)	40,876,010.67	35,237,834	15,039,659	1,056,372	14.2	2.58
NEAL 1	65-R1 *	(21)	25,088,851.04	22,121,495	8,236,015	572,902	14.4	2.28
NEAL 2	65-R1 *	(19)	74,898,827.09	50,413,177	38,716,427	2,696,469	14.4	3.60
NEAL 3	65-R1 *	(17)	93,079,630.66	90,808,730	18,094,438	779,140	23.2	0.84
NEAL 4	65-R1 *	(12)	102,820,107.71	99,769,699	15,388,822	572,576	26.9	0.56
WALTER SCOTT 1	65-R1 *	(17)	9,364,749.41	7,836,638	3,120,119	635,034	4.9	6.78
WALTER SCOTT 2	65-R1 *	(17)	37,130,335.75	25,240,466	18,202,027	3,692,228	4.9	9.94
WALTER SCOTT 3	65-R1 *	(11)	352,340,800.00	146,595,071	244,503,217	8,870,004	27.6	2.52
WALTER SCOTT 4	65-R1 *	(6)	327,913,738.52	40,065,293	307,523,270	8,635,668	35.6	2.63
TOTAL BOILER PLANT EQUIPMENT			1,655,253,639.79	838,046,741	992,384,835	39,439,029		
312.80 BOILER PLANT EQUIPMENT - TRAINS								
GONDOLA	25-R2.5	5	55,537,734.32	18,062,641	34,698,207	1,825,551	19.0	3.29
HOPPER	25-R2.5	5	27,665,281.75	13,873,271	12,408,747	815,542	15.2	2.95
TOTAL BOILER PLANT EQUIPMENT - TRAINS			83,203,016.07	31,935,912	47,106,954	2,641,093		

MIDAMERICAN ENERGY COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2010

Depreciable Group	Survivor Curve	Net Salvage Percent	Original Cost	Book Reserve	Future Accruals	Annual Accrual Amount	Composite Remaining Life	Annual Accrual Rate Percent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
314.00 TURBOGENERATOR UNITS								
LOUISA	75-R1.5 *	(8)	99,563,096.64	46,812,941	60,715,203	2,172,418	28.0	2.18
OTTUMWA	75-R1.5 *	(11)	38,369,368.74	27,193,583	15,396,416	552,199	27.9	1.44
RIVERSIDE	75-R1.5 *	(23)	9,500,200.89	8,900,564	2,784,683	193,452	14.4	2.04
NEAL 1	75-R1.5 *	(21)	8,863,373.97	8,896,296	1,828,387	125,872	14.5	1.42
NEAL 2	75-R1.5 *	(19)	13,941,970.35	15,151,195	1,439,750	99,327	14.5	0.71
NEAL 3	75-R1.5 *	(17)	24,357,312.77	22,689,606	5,808,450	244,290	23.8	1.00
NEAL 4	75-R1.5 *	(12)	23,064,157.60	22,807,610	3,024,247	110,306	27.4	0.48
WALTER SCOTT 1	75-R1.5 *	(17)	2,240,075.68	2,598,589	22,300	4,563	4.9	0.20
WALTER SCOTT 2	75-R1.5 *	(17)	5,425,701.12	5,500,318	847,752	172,667	4.9	3.18
WALTER SCOTT 3	75-R1.5 *	(11)	56,155,194.87	40,950,243	21,382,023	767,402	27.9	1.37
WALTER SCOTT 4	75-R1.5 *	(6)	140,695,830.64	14,542,417	134,595,163	3,626,899	37.1	2.58
TOTAL TURBOGENERATOR UNITS			422,176,283.27	216,043,362	247,844,374	8,069,395		
315.00 ACCESSORY ELECTRIC EQUIPMENT								
LOUISA	65-R1.5 *	(8)	55,250,415.96	32,936,575	26,733,874	998,099	26.8	1.81
OTTUMWA	65-R1.5 *	(11)	21,417,079.78	17,069,808	6,703,151	246,293	27.2	1.15
RIVERSIDE	65-R1.5 *	(23)	6,486,669.33	5,155,951	2,822,652	198,951	14.2	3.07
NEAL 1	65-R1.5 *	(21)	4,869,036.42	2,732,342	3,159,192	218,452	14.5	4.49
NEAL 2	65-R1.5 *	(19)	6,556,107.50	6,161,786	1,639,982	113,901	14.4	1.74
NEAL 3	65-R1.5 *	(17)	14,556,239.08	8,939,935	8,090,865	342,893	23.6	2.36
NEAL 4	65-R1.5 *	(12)	17,120,850.45	17,911,399	1,263,954	47,436	26.7	0.28
WALTER SCOTT 1	65-R1.5 *	(17)	1,476,259.81	1,414,122	313,102	63,925	4.9	4.33
WALTER SCOTT 2	65-R1.5 *	(17)	4,211,256.37	3,555,663	1,371,507	278,976	4.9	6.62
WALTER SCOTT 3	65-R1.5 *	(11)	21,955,883.80	20,316,223	4,054,808	154,654	26.2	0.70
WALTER SCOTT 4	65-R1.5 *	(6)	43,153,690.85	3,920,800	41,822,112	1,147,925	36.4	2.66
TOTAL ACCESSORY ELECTRIC EQUIPMENT			197,053,489.35	120,114,604	97,975,199	3,811,505		
316.00 MISCELLANEOUS POWER PLANT EQUIPMENT								
LOUISA	50-R2 *	(8)	2,449,728.13	1,892,601	753,105	32,921	22.9	1.34
OTTUMWA	50-R2 *	(11)	6,064,908.65	4,718,481	2,013,568	79,052	25.5	1.30
RIVERSIDE	50-R2 *	(23)	651,672.76	490,741	310,816	22,434	13.9	3.44
NEAL 1	50-R2 *	(21)	231,487.00	277,784	2,315	205	11.3	0.09
NEAL 2	50-R2 *	(19)	990,477.82	778,157	400,512	27,953	14.3	2.82
NEAL 3	50-R2 *	(17)	866,641.77	858,088	155,883	6,705	23.3	0.77
NEAL 4	50-R2 *	(12)	1,556,969.42	1,450,732	293,074	11,801	24.8	0.76
WALTER SCOTT 1	50-R2 *	(17)	735.00	853	7	2	3.5	0.27
WALTER SCOTT 2	50-R2 *	(17)	1,633,763.00	1,844,898	66,605	13,517	4.9	0.83
WALTER SCOTT 3	50-R2 *	(11)	5,566,284.58	5,129,837	1,048,739	43,777	24.0	0.79
WALTER SCOTT 4	50-R2 *	(6)	597,240.26	50,984	582,091	16,138	36.1	2.70
TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT			20,609,908.39	17,493,156	5,626,715	254,505		
TOTAL STEAM PRODUCTION PLANT			**2,860,165,111.64**	[illegible]	[illegible]	[illegible]	**26.3**	**2.15**

MIDAMERICAN ENERGY COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK RESERVE AND
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2010

Depreciable Group (1)	Survivor Curve (2)		Net Salvage Percent (3)	Original Cost (4)	Book Reserve (5)	Future Accruals (6)	Annual Accrual Amount (7)	Composite Remaining Life (8)	Annual Accrual Rate Percent (9)
HYDRO PRODUCTION PLANT									
331.00 STRUCTURES AND IMPROVEMENTS	100-S1	*	(55)	407,856.86	155,920	476,258	47,969	9.9	11.76
332.00 RESERVOIRS, DAMS AND WATERWAYS	100-S1	*	(55)	939,221.26	550,056	905,737	91,472	9.9	9.74
333.00 WATER WHEELS, TURBINES AND GENERATORS	75-S2.5	*	(55)	437,948.00	457,166	221,653	23,372	9.5	5.34
334.00 ACCESSORY ELECTRIC EQUIPMENT	60-S1.5	*	(55)	511,519.82	314,501	478,355	48,937	9.8	9.57
335.00 MISCELLANEOUS POWER PLANT EQUIPMENT	45-R2.5	*	(55)	9,909.09	4,243	11,116	1,151	9.7	11.62
TOTAL HYDRO PRODUCTION PLANT				**2,306,455.03**	**1,481,886**	**2,093,119**	**212,901**	**9.8**	**9.23**
OTHER PRODUCTION PLANT									
340.10 LAND RIGHTS									
CENTURY	75-R3	*	0	3,838,200.47	854,951	2,983,249	199,815	14.9	5.21
ELECTRIFARM	75-R3	*	0	58,361.00	44,942	13,419	2,705	5.0	4.63
GDMEC	75-R3	*	0	1,279,858.61	180,491	1,099,368	52,854	20.8	4.13
INTREPID	75-R3	*	0	818,820.94	214,785	604,036	43,331	13.9	5.29
ADAIR	75-R3	*	0	1,072,130.62	340,511	731,620	40,827	17.9	3.81
CARROLL	75-R3	*	0	1,197,917.87	289,616	908,302	50,686	17.9	4.23
CHARLES CITY	75-R3	*	0	438,957.41	347,444	91,513	5,107	17.9	1.16
POMEROY	75-R3	*	0	13,949,335.28	1,702,015	12,247,320	723,660	16.9	5.19
VICTORY	75-R3	*	0	6,888,546.01	1,140,963	5,747,583	360,802	15.9	5.24
WALNUT	75-R3	*	0	830,925.30	324,475	506,450	28,262	17.9	3.40
TOTAL LAND RIGHTS				30,373,053.51	5,440,193	24,932,860	1,508,049		
341.00 STRUCTURES AND IMPROVEMENTS									
ELECTRIFARM	60-R4	*	(5)	1,689,800.40	1,277,021	497,269	50,263	9.9	2.97
GDMEC	60-R4	*	(5)	4,930.00	1,492	3,684	176	20.9	3.57
MOLINE	60-R4	*	(5)	621,667.76	281,996	370,755	74,253	5.0	11.94
PLEASANT HILL	60-R4	*	(5)	5,852,078.81	3,829,913	2,314,770	118,180	19.6	2.02
RIVER HILLS	60-R4	*	(5)	641,015.97	547,939	125,128	25,229	5.0	3.94
SYCAMORE	60-R4	*	(5)	777,823.54	515,680	301,035	30,315	9.9	3.90
MERL PARR	60-R4	*	(5)	71,825.00	47,665	27,751	5,581	5.0	7.77
CORALVILLE	60-R4	*	(5)	290,712.08	153,087	152,161	10,188	14.9	3.50
GDMEC - INITIAL	60-R4	*	(5)	33,135,286.25	8,118,905	26,673,146	1,275,551	20.9	3.85
TOTAL STRUCTURES AND IMPROVEMENTS				43,085,139.81	14,773,698	30,465,699	1,589,736		
342.00 FUEL HOLDERS, PRODUCERS AND ACCESSORIES									
ELECTRIFARM	50-S3	*	(5)	2,023,382.72	1,950,179	174,373	17,835	9.8	0.88
MOLINE	50-S3	*	(5)	532,323.00	575,160	(16,221)	0	-	-
PLEASANT HILL	50-S3	*	(5)	2,364,784.46	1,316,967	1,166,057	60,126	19.4	2.54
RIVER HILLS	50-S3	*	(5)	161,912.00	188,153	(18,145)	0	-	-
SYCAMORE	50-S3	*	(5)	298,164.00	281,614	31,458	3,193	9.9	1.07
MERL PARR	50-S3	*	(5)	120,278.00	121,916	4,376	878	5.0	0.73

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Depreciable Group (1)		Survivor Curve (2)		Net Salvage Percent (3)	Original Cost (4)	Book Reserve (5)	Future Accruals (6)	Annual Accrual Amount (7)	Composite Remaining Life (8)	Annual Accrual Rate Percent (9)
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES, cont.									
	CORALVILLE	50-S3	*	(5)	157,244.00	170,541	(5,435)	0	-	-
	GDMEC - INITIAL	50-S3	*	(5)	11,292,230.83	3,385,216	8,471,626	406,439	20.8	3.60
	TOTAL FUEL HOLDERS, PRODUCERS AND ACCESSORIES				16,950,319.01	7,989,743	9,808,092	488,471		
343.00	PRIME MOVERS									
	ELECTRIFARM	45-S3	*	(5)	173,454.00	173,430	8,697	1,020	8.5	0.59
	PLEASANT HILL	45-S3	*	(5)	852,672.00	554,539	340,767	19,296	17.7	2.26
	RIVER HILLS	45-S3	*	(5)	100,897.00	100,897	5,045	1,201	4.2	1.19
	SYCAMORE	45-S3	*	(5)	100,730.00	97,677	8,090	1,014	8.0	1.01
	TOTAL PRIME MOVERS				1,227,753.00	926,543	362,599	22,531		
344.00	GENERATORS									
	ELECTRIFARM	55-R3	*	(5)	19,867,504.81	18,618,851	2,242,029	234,050	9.6	1.18
	MOLINE	55-R3	*	(5)	6,315,481.00	6,501,482	129,773	26,149	5.0	0.41
	PLEASANT HILL	55-R3	*	(5)	41,172,803.08	25,887,943	17,343,500	911,960	19.0	2.21
	RIVER HILLS	55-R3	*	(5)	9,179,241.19	9,462,543	175,660	35,242	5.0	0.38
	SYCAMORE	55-R3	*	(5)	17,333,295.39	14,234,647	3,965,313	402,857	9.8	2.32
	MERL PARR	55-R3	*	(5)	3,764,915.00	3,684,844	268,317	54,762	4.9	1.45
	CORALVILLE	55-R3	*	(5)	13,336,358.21	6,336,254	7,666,922	520,083	14.7	3.90
	PORTABLE POWER MODULES	55-R3	*	25	19,985,382.00	10,459,154	4,529,882	909,596	5.0	4.55
	GDMEC - INITIAL	55-R3	*	(5)	243,922,137.83	61,317,869	194,800,376	9,452,496	20.6	3.88
	TOTAL GENERATORS				374,877,118.51	156,503,587	231,121,772	12,547,195		
344.01	GENERATORS									
	CENTURY	55-S2.5	*	(1)	201,313,338.43	51,939,473	151,386,999	10,115,258	15.0	5.02
	INTREPID	55-S2.5	*	(1)	161,780,012.05	49,497,074	113,900,738	8,152,409	14.0	5.04
	ADAIR	55-S2.5	*	(1)	328,692,457.14	30,319,412	301,659,970	16,786,865	18.0	5.11
	CARROLL	55-S2.5	*	(1)	266,827,601.89	25,898,749	243,597,129	13,555,761	18.0	5.08
	CHARLES CITY	55-S2.5	*	(1)	126,100,449.39	16,393,313	110,968,141	6,178,624	18.0	4.90
	IA STATE FAIR	55-S2.5	*	(1)	797,100.09	133,968	671,103	39,546	17.0	4.96
	POMEROY	55-S2.5	*	(1)	428,346,704.61	57,143,285	375,486,887	22,126,498	17.0	5.17
	VICTORY	55-S2.5	*	(1)	147,077,380.80	30,094,003	118,454,152	7,417,292	16.0	5.04
	WALNUT	55-S2.5	*	(1)	307,225,289.05	29,057,498	281,240,044	15,650,530	18.0	5.09
	TOTAL GENERATORS				1,968,160,333.45	290,476,775	1,697,365,163	100,022,783		
345.00	ACCESSORY ELECTRIC EQUIPMENT									
	ELECTRIFARM	50-R2.5	*	(5)	3,091,135.27	2,066,425	1,179,267	121,797	9.7	3.94
	MOLINE	50-R2.5	*	(5)	602,956.73	473,703	159,402	32,620	4.9	5.41
	PLEASANT HILL	50-R2.5	*	(5)	7,186,426.93	3,991,504	3,554,244	191,514	18.6	2.66
	RIVER HILLS	50-R2.5	*	(5)	3,753,831.13	3,746,720	194,803	39,397	4.9	1.05

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Depreciable Group (1)	Survivor Curve (2)	Net Salvage Percent (3)	Original Cost (4)	Book Reserve (5)	Future Accruals (6)	Annual Accrual Amount (7)	Composite Remaining Life (8)	Annual Accrual Rate Percent (9)
345.00 ACCESSORY ELECTRIC EQUIPMENT, cont.								
SYCAMORE	50-R2.5 *	(5)	1,655,490.71	1,144,042	594,223	61,435	9.7	3.71
MERL PARR	50-R2.5 *	(5)	820,662.00	820,662	41,033	8,290	5.0	1.01
CORALVILLE	50-R2.5 *	(5)	1,397,782.89	82,570	1,385,102	95,318	14.5	6.82
GDMEC - INITIAL	50-R2.5 *	(5)	36,365,847.28	8,894,814	29,289,326	1,448,085	20.2	3.98
TOTAL ACCESSORY ELECTRIC EQUIPMENT			54,874,132.94	21,220,440	36,397,400	1,998,456		
345.01 ACCESSORY ELECTRIC EQUIPMENT								
CENTURY	50-S4 *	0	15,769,873.29	3,400,515	12,369,358	824,623	15.0	5.23
INTREPID	50-S4 *	0	15,806,586.85	4,612,085	11,194,502	799,607	14.0	5.06
ADAIR	50-S4 *	0	20,617,381.38	4,752,388	15,864,993	881,388	18.0	4.27
CARROLL	50-S4 *	0	31,432,487.04	4,190,636	27,241,851	1,513,436	18.0	4.81
CHARLES CITY	50-S4 *	0	13,977,372.50	2,276,407	11,700,966	650,054	18.0	4.65
IA STATE FAIR	50-S4 *	0	88,566.67	14,738	73,829	4,343	17.0	4.90
POCAHONTAS COUNTY	50-S4 *	0	10,088,367.07	0	10,088,367	593,433	17.0	5.88
POMEROY	50-S4 *	0	29,698,237.52	7,984,343	21,713,895	1,277,287	17.0	4.30
ROLLING HILLS	50-S4 *	0	12,141,654.19	525,040	11,616,614	611,400	19.0	5.04
SAC COUNTY	50-S4 *	0	2,740,231.93	0	2,740,232	195,731	14.0	7.14
VICTORY	50-S4 *	0	17,970,394.24	3,685,719	14,284,675	892,792	16.0	4.97
WALNUT	50-S4 *	0	34,347,245.15	4,562,761	29,784,484	1,654,694	18.0	4.82
TOTAL ACCESSORY ELECTRIC EQUIPMENT			204,678,397.83	36,004,632	168,673,766	9,898,788		
346.00 MISCELLANEOUS POWER PLANT EQUIPMENT								
MOLINE	40-S2 *	(5)	86,918.27	51,246	40,018	8,206	4.9	9.44
PLEASANT HILL	40-S2 *	(5)	66,156.00	44,202	25,262	1,591	15.9	2.40
RIVER HILLS	40-S2 *	(5)	114,416.09	43,263	76,874	15,517	5.0	13.56
SYCAMORE	40-S2 *	(5)	166,428.88	95,914	78,836	7,963	9.9	4.78
CORALVILLE	40-S2 *	(5)	69,571.88	57,210	15,840	1,089	14.6	1.57
TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT			503,491.12	291,835	236,830	34,366		
346.01 MISCELLANEOUS POWER PLANT EQUIPMENT								
CENTURY	40-S2.5 *	0	153,333.55	31,306	122,028	8,212	14.9	5.36
INTREPID	40-S2.5 *	0	398,593.62	102,111	296,483	21,376	13.9	5.36
CHARLES CITY	40-S2.5 *	0	183,466.52	9,938	173,529	9,727	17.8	5.30
POMEROY	40-S2.5 *	0	331,261.15	10,423	320,838	19,003	16.9	5.74
VICTORY	40-S2.5 *	0	189,092.64	29,152	159,941	10,078	15.9	5.33
TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT			1,255,747.48	182,930	1,072,819	68,396		
TOTAL OTHER PRODUCTION PLANT			**2,695,985,486.66**	**533,810,376**	**2,200,437,000**	**128,178,771**	**17.2**	**4.75**

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Depreciable Group	Survivor Curve	Net Salvage Percent	Original Cost	Book Reserve	Future Accruals	Annual Accrual Amount	Composite Remaining Life	Annual Accrual Rate Percent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TRANSMISSION PLANT								
350.10 LAND RIGHTS	70-R4	0	53,614,698.68	13,752,853	39,861,846	770,742	51.7	1.44
352.00 STRUCTURES AND IMPROVEMENTS	60-R3	(5)	10,631,238.07	5,304,555	5,858,245	140,564	41.7	1.32
353.00 STATION EQUIPMENT	55-R1.5	(5)	275,872,354.66	93,653,426	196,012,546	4,321,187	45.4	1.57
354.00 TOWERS AND FIXTURES	70-S2.5	(15)	28,197,140.46	22,220,336	10,206,376	262,018	39.0	0.93
355.00 POLES AND FIXTURES	52-R2.5	(30)	185,889,370.99	66,899,638	174,756,544	4,355,656	40.1	2.34
356.00 OVERHEAD CONDUCTORS AND DEVICES	55-R3	(25)	158,263,402.71	58,430,585	139,398,668	3,344,534	41.7	2.11
357.00 UNDERGROUND CONDUIT	55-R4	0	1,138,796.42	396,079	742,717	21,696	34.2	1.91
358.00 UNDERGROUND CONDUCTORS AND DEVICES	55-R4	0	1,989,473.93	770,708	1,218,766	38,870	31.4	1.95
359.00 ROADS AND TRAILS	70-R4	0	14,764.00	12,611	2,153	91	23.7	0.62
TOTAL TRANSMISSION PLANT			**715,611,239.92**	**261,440,791**	**568,057,861**	**13,255,358**	**42.9**	**1.85**
DISTRIBUTION PLANT								
360.10 LAND RIGHTS	70-R4	0	7,945,531.82	1,887,508	6,058,024	118,431	51.2	1.49
361.00 STRUCTURES AND IMPROVEMENTS	65-R3	(10)	19,314,290.99	8,941,693	12,304,027	257,522	47.8	1.33
362.00 STATION EQUIPMENT	55-R2.5	(10)	452,355,257.67	192,784,347	304,806,436	7,187,354	42.4	1.59
364.00 POLES, TOWERS AND FIXTURES	48-R4	(50)	355,778,064.76	231,489,296	302,177,801	9,264,005	32.6	2.60
365.00 OVERHEAD CONDUCTORS AND DEVICES	50-R2	(40)	505,133,862.75	216,255,886	490,931,522	13,062,108	37.6	2.59
366.00 UNDERGROUND CONDUIT	60-S3	(40)	46,889,633.70	18,276,142	47,369,345	1,123,376	42.2	2.40
367.00 UNDERGROUND CONDUCTORS AND DEVICES	50-R2.5	(25)	384,993,689.21	116,734,095	364,508,017	9,059,227	40.2	2.35
368.00 LINE TRANSFORMERS	43-R2.5	5	284,001,397.52	129,398,170	140,403,158	4,258,565	33.0	1.50
369.00 SERVICES	60-R4	(80)	128,190,453.19	69,869,150	160,873,666	3,528,210	45.6	2.75
370.00 METERS	20-L2	0	69,572,559.04	(7,905,960)	77,478,519	6,536,822	11.9	9.40
371.00 INSTALLATIONS ON CUSTOMER PREMISES	33-S0.5	(25)	14,691,111.05	9,000,077	9,363,812	400,040	23.4	2.72
373.00 STREET LIGHTING AND SIGNAL SYSTEMS	35-R1.5	(25)	66,811,545.30	37,585,850	45,928,582	1,730,625	26.5	2.59
TOTAL DISTRIBUTION PLANT			**2,335,677,397.00**	**1,024,316,254**	**1,962,202,909**	**56,526,285**	**34.7**	**2.42**
GENERAL PLANT								
389.10 LAND RIGHTS	70-R4	0	520,444.00	133,959	386,485	7,940	48.7	1.53
390.00 STRUCTURES AND IMPROVEMENTS	45-R0.5	(5)	113,975,421.86	43,814,927	75,859,266	2,080,383	36.5	1.83
391.00 OFFICE FURNITURE AND EQUIPMENT	10-SQ	0	7,033,174.30	4,270,135	2,763,039	688,083	4.0	9.78
391.10 OFFICE FURNITURE AND EQUIPMENT - COMPUTER	5-SQ	0	27,774,503.92	15,466,244	12,308,260	4,203,768	2.9	15.14
TRANSPORTATION EQUIPMENT								
392.00 PLANES	9-S1.5	20	19,730,469.13	14,126,803	1,657,572	288,339	5.8	1.46
392.10 CARS	9-L4	10	1,510,939.60	1,246,155	113,691	16,133	7.1	1.07
392.20 LIGHT TRUCKS - CLASS 2	12-L3	10	5,163,951.49	3,603,592	1,043,964	138,917	7.5	2.69
392.30 LIGHT TRUCKS - CLASS 3	12-L3	10	4,773,214.73	3,653,220	642,673	88,303	7.3	1.85
392.40 HEAVY TRUCKS - CLASS 4	14-L4	10	10,616,443.73	6,547,610	3,007,189	259,365	11.6	2.44
392.70 HEAVY TRUCKS - CLASS 7	14-L4	10	41,363,081.66	28,435,574	8,791,199	932,917	9.4	2.26
392.80 TRAILERS	23-S0.5	10	5,856,896.19	2,985,411	2,285,796	129,526	17.7	2.21
TOTAL TRANSPORTATION EQUIPMENT			89,014,996.53	60,598,365	17,542,084	1,853,500		

MIDAMERICAN ENERGY COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK RESERVE AND
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2010

Depreciable Group (1)	Survivor Curve (2)	Net Salvage Percent (3)	Original Cost (4)	Book Reserve (5)	Future Accruals (6)	Annual Accrual Amount (7)	Composite Remaining Life (8)	Annual Accrual Rate Percent (9)
393.00 STORES EQUIPMENT	10-SQ	0	1,086,921.73	790,392	296,530	63,672	4.7	5.86
394.00 TOOLS, SHOP, AND GARAGE EQUIPMENT	15-SQ	0	12,194,309.32	4,782,006	7,412,303	820,332	9.0	6.73
395.00 LABORATORY EQUIPMENT	10-SQ	0	1,893,890.58	1,423,809	470,082	187,537	2.5	9.90
396.00 POWER OPERATED EQUIPMENT	14-L0.5	20	12,220,941.64	7,223,269	2,553,484	206,108	12.4	1.69
397.00 COMMUNICATION EQUIPMENT	15-SQ	0	27,110,369.17	22,884,987	4,225,382	435,489	9.7	1.61
397.10 COMMUNICATION EQUIPMENT - PHONES	10-SQ	0	559,495.40	10,167	549,328	64,627	8.5	11.55
398.00 MISCELLANEOUS EQUIPMENT	10-SQ	0	1,342,996.99	804,881	538,116	71,193	7.6	5.30
TOTAL GENERAL PLANT			**294,727,465.44**	**162,203,141**	**124,904,359**	**10,682,632**	**11.7**	**3.62**
TOTAL DEPRECIABLE PLANT			**8,904,473,155.69**	**3,506,658,287**	**6,477,335,299**	**270,360,677**	**24.0**	**3.04**
NONDEPRECIABLE PLANT								
301.00 ORGANIZATION			101,985.00	101,985				
302.00 FRANCHISES AND CONSENTS			407,814.00	334,743				
303.00 MISCELLANEOUS INTANGIBLE PLANT			155,818,220.08	141,945,690				
310.00 LAND			9,914,879.43	(1,882)				
311.30 STRUCTURES AND IMPROVEMENTS - LEASE			1,849,750.76	277,463				
330.00 LAND			3,113.00					
340.00 LAND			514,421.13	(1,882)				
350.00 LAND			6,959,229.11					
360.00 LAND			10,871,934.46	167				
389.00 LAND			5,109,753.56					
390.30 STRUCTURES AND IMPROVEMENTS - LEASE			103,986.00	35,922				
396.84 POWER OPERATED EQUIPMENT - LEASE			207,250.00	177,917				
TOTAL NONDEPRECIABLE PLANT			**191,862,336.53**	**142,870,123**				
TOTAL ELECTRIC PLANT IN SERVICE			**9,096,335,492.22**	**3,649,528,410**	**6,477,335,299**	**270,360,677**		

* INDICATES INTERIM SURVIVOR CURVE. EACH UNIT HAS A UNIQUE TERMINAL DATE.

WISCONSIN POWER AND LIGHT COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC, GAS AND COMMON PLANT AS OF DECEMBER 31, 2010

	Depreciable Group (1)	Survivor Curve (2)	Net Salvage (3)	Original Cost as of December 31, 2010 (4)	Book Reserve (5)	Future Book Accruals (6)	Calculated Annual Accrual Amount (7)	Calculated Annual Accrual Rate (8)=(7)/(4)	Composite Remaining Life (9)=(6)/(7)
	ELECTRIC PLANT								
	STEAM PRODUCTION PLANT								
310.10	LAND AND LAND RIGHTS - ASH BASIN								
	COLUMBIA #1	SQUARE *	0	156,541.10	119,906	36,635	1,495	0.96	24.5
	EDGEWATER STATION #3	SQUARE *	0	896,229.75	619,447	276,783	23,065 **	2.57	12.0
	EDGEWATER STATION #4	SQUARE *	0	261,778.04	288,059	(26,281)	0	-	-
	EDGEWATER STATION #5	SQUARE *	0	382,522.42	356,598	25,924	752	0.20	34.5
	TOTAL ACCOUNT 310.10 - LAND AND LAND RIGHTS - ASH BASIN			1,697,071.31	1,384,010	313,061	25,312	1.49	
311.00	STRUCTURES AND IMPROVEMENTS								
	BLACKHAWK STATION #3			0.00	762,251	0	0	-	-
	BLACKHAWK STATION #4			0.00	410,476	0	0	-	-
	BLACKHAWK STATION #3 & #4			0.00	616,830	0	0	-	-
	COLUMBIA #1	70-R1.5 *	(18)	13,248,129.55	11,864,308	3,768,485	168,234	1.27	22.4
	COLUMBIA #2	70-R1.5 *	(18)	15,412,560.06	14,158,153	4,028,668	162,625	1.06	24.8
	EDGEWATER STATION #3	70-R1.5 *	(12)	2,840,970.16	1,908,191	1,273,696	106,141 **	3.74	12.0
	EDGEWATER STATION #4	70-R1.5 *	(13)	6,276,758.97	5,819,994	1,272,744	68,535	1.09	18.6
	EDGEWATER STATION #5	70-R1.5 *	(13)	44,915,306.03	32,773,757	17,980,539	592,159	1.32	30.4
	NELSON DEWEY STATION #1	70-R1.5 *	(13)	1,922,584.41	1,681,812	490,708	40,892 **	2.13	12.0
	NELSON DEWEY STATION #2	70-R1.5 *	(12)	5,155,896.28	5,348,324	426,280	35,523 **	0.69	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	70-R1.5 *	(12)	1,709,088.86	1,838,884	75,296	6,275 **	0.37	12.0
	ROCK RIVER UNIT #1	70-R1.5 *	(25)	71,984.43	715,255	(625,274)	0	-	-
	ROCK RIVER UNIT #2	70-R1.5 *	(25)	50,158.86	376,958	(314,259)	0	-	-
	ROCK RIVER UNIT #1 & #2 - COMMON	70-R1.5 *	(25)	364,955.28	569,265	(113,071)	0	-	-
	TOTAL ACCOUNT 311 - STRUCTURES AND IMPROVEMENTS			91,968,392.89	78,844,458	28,263,812	1,180,385	1.28	
312.00	BOILER PLANT EQUIPMENT								
	BLACKHAWK STATION #3			0.00	48,456	0	0	-	-
	BLACKHAWK STATION #4			0.00	83,267	0	0	-	-
	BLACKHAWK STATION #3 & #4			0.00	446,836	0	0	-	-
	COLUMBIA #1	65-R1 *	(18)	51,599,658.68	31,713,889	29,173,708	1,295,071	2.51	22.5
	COLUMBIA #2	65-R1 *	(18)	74,412,846.22	50,255,702	37,551,457	1,506,811	2.02	24.9
	EDGEWATER STATION #3	65-R1 *	(12)	13,034,621.86	9,366,873	5,231,903	435,992 **	3.34	12.0
	EDGEWATER STATION #4	65-R1 *	(13)	46,334,728.68	22,579,791	29,778,452	1,641,884	3.54	18.1
	EDGEWATER STATION #5	65-R1 *	(13)	191,627,920.02	113,599,639	102,939,911	3,462,431	1.81	29.7
	NELSON DEWEY STATION #1	65-R1 *	(13)	17,653,526.72	10,168,070	9,780,415	815,035 **	4.62	12.0
	NELSON DEWEY STATION #2	65-R1 *	(12)	20,841,453.77	8,893,653	14,448,775	1,204,065 **	5.78	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	65-R1 *	(12)	14,131,727.86	9,091,839	6,735,696	561,308 **	3.97	12.0
	ROCK RIVER UNIT #1	65-R1 *	(25)	68,066.80	541,778	(456,694)	0	-	-
	ROCK RIVER UNIT #2	65-R1 *	(25)	68,066.74	695,311	(610,228)	0	-	-
	ROCK RIVER UNIT #1 & #2 - COMMON			0.00	758,548	0	0	-	-
	COLUMBIA #1 & #2 - COMMON	65-R1 *	(18)	4,790,157.08	3,004,971	2,647,414	108,240	2.26	24.5
	TOTAL ACCOUNT 312 - BOILER PLANT EQUIPMENT			434,562,774.43	261,248,623	237,220,809	11,030,836	2.54	

WISCONSIN POWER AND LIGHT COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC, GAS AND COMMON PLANT AS OF DECEMBER 31, 2010

	Depreciable Group	Survivor Curve		Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount		Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)		(3)	(4)	(5)	(6)	(7)		(8)=(7)/(4)	(9)=(6)/(7)
312.10	BOILER PLANT EQUIPMENT - UNIT TRAIN										
	COLUMBIA #1	25-R3		30	197,062.68	3,857	134,087	5,946		3.02	22.6
	COLUMBIA #2	25-R3		30	197,062.70	3,857	134,087	5,946		3.02	22.6
	EDGEWATER STATION #3	25-R3		30	755,118.17	19,750	508,833	42,403	**	5.62	12.0
	EDGEWATER STATION #4	25-R3		30	2,819,760.40	84,146	1,889,686	78,813		2.80	24.0
	EDGEWATER STATION #5	25-R3		30	4,732,477.72	139,731	3,173,003	132,202		2.79	24.0
	COLUMBIA #1 & #2 - COMMON	25-R3		30	1,860,200.98	1,243,537	58,604	5,304		0.29	11.0
	TOTAL ACCOUNT 312.10 - BOILER PLANT EQUIPMENT - UNIT TRAIN				10,561,682.65	1,494,878	5,898,300	270,614		2.56	
312.20	BOILER PLANT EQUIPMENT - POWER OPERATED										
	COLUMBIA #1	20-L2.5		25	809,276.05	15,663	591,294	33,571		4.15	17.6
	COLUMBIA #2	20-L2.5		25	809,275.97	15,663	591,294	33,571		4.15	17.6
	EDGEWATER STATION #3	20-L2.5		25	78,946.71	14,884	44,326	3,694	**	4.68	12.0
	EDGEWATER STATION #4	20-L2.5		25	335,078.90	51,413	199,896	12,270		3.66	16.3
	EDGEWATER STATION #5	20-L2.5		25	544,578.11	87,206	321,228	19,819		3.64	16.2
	NELSON DEWEY STATION #1	20-L2.5		25	555,673.69	4,946	411,809	34,317	**	6.18	12.0
	NELSON DEWEY STATION #2	20-L2.5		25	555,679.51	4,946	411,814	34,318	**	6.18	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	20-L2.5		25	128,055.48	36,021	60,021	5,002	**	3.91	12.0
	COLUMBIA #1 & #2 - COMMON	20-L2.5		25	11,273.23	7,352	1,103	138		1.22	8.0
	TOTAL ACCOUNT 312.20 - BOILER PLANT EQUIPMENT - POWER OPERATED				3,827,837.65	238,094	2,632,785	176,700		4.62	
312.30	BOILER PLANT EQUIPMENT - UNCLASSIFIED										
	EDGEWATER STATION #3	40-S2	*	0	1,811.21	693	1,118	93	**	5.14	12.0
	EDGEWATER STATION #4	40-S2	*	0	5,591.03	1,899	3,692	206		3.68	17.9
	TOTAL ACCOUNT 312.30 - BOILER PLANT EQUIPMENT - UNCLASSIFIED				7,402.24	2,592	4,810	299		4.04	
312.40	BOILER PLANT EQUIPMENT - TOOLS										
	NELSON DEWEY STATION #1 & #2 - COMMON	25-SQ		0	145,021.60	18,919	126,103	10,509	**	7.25	12.0
	COLUMBIA #1 & #2 - COMMON	25-SQ		0	7,080.63	3,240	3,841	334		4.72	11.5
	TOTAL ACCOUNT 312.40 - BOILER PLANT EQUIPMENT - TOOLS				152,102.23	22,159	129,944	10,843		7.13	
312.50	BOILER PLANT EQUIPMENT- COMBUSTION INITIATIVE										
	COLUMBIA #1	10-SQ		0	7,057,058.20	4,534,777	2,522,281	1,284,718		18.20	2.0
	COLUMBIA #2	10-SQ		0	13,215,009.47	9,849,825	3,365,184	954,804		7.23	3.5
	EDGEWATER STATION #3	10-SQ		0	11,423,181.02	5,864,255	5,558,926	463,244	**	4.06	12.0
	EDGEWATER STATION #4	10-SQ		0	16,335,201.05	9,459,192	6,876,009	1,724,982		10.56	4.0
	EDGEWATER STATION #5	10-SQ		0	20,539,866.65	7,366,119	13,173,748	2,334,440		11.37	5.6
	NELSON DEWEY STATION #1	10-SQ		0	16,513,084.83	8,380,807	8,132,278	677,690	**	4.10	12.0
	NELSON DEWEY STATION #2	10-SQ		0	11,877,510.73	5,526,395	6,351,116	529,260	**	4.46	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	10-SQ		0	92,535.77	57,698	34,838	2,903	**	3.14	12.0
	TOTAL ACCOUNT 312.50 - BOILER PLANT EQUIPMENT - COMBUSTION INITIATIVE				97,053,447.72	51,039,068	46,014,380	7,972,041		8.21	

ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC, GAS AND COMMON PLANT AS OF DECEMBER 31, 2010

	Depreciable Group	Survivor Curve	Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
312.60	BOILER PLANT EQUIPMENT- RAIL IMPROVEMENTS								
	EDGEWATER STATION #3	30-S1.5	(10)	97,902.78	29,985	77,708	6,476 **	6.61	12.0
	EDGEWATER STATION #4	30-S1.5	(10)	443,252.23	135,696	351,881	13,761	3.10	25.6
	EDGEWATER STATION #5	30-S1.5	(10)	710,184.22	212,679	568,524	22,234	3.13	25.6
	TOTAL ACCOUNT 312.60 - BOILER PLANT EQUIPMENT - RAIL IMPROVEMENTS			1,251,339.23	378,360	998,113	42,471	3.39	
314.00	TURBOGENERATOR UNITS								
	BLACKHAWK STATION #3			0.00	69,919	0	0	-	-
	BLACKHAWK STATION #4			0.00	174,327	0	0	-	-
	BLACKHAWK STATION #3 & #4			0.00	221,086	0	0	-	-
	COLUMBIA #1	70-R2 *	(18)	12,406,625.30	6,338,005	8,301,813	363,316	2.93	22.9
	COLUMBIA #2	70-R2 *	(18)	15,974,606.71	8,785,054	10,064,982	398,476	2.49	25.3
	EDGEWATER STATION #3	70-R2 *	(12)	5,703,523.02	2,446,468	3,941,478	328,457 **	5.76	12.0
	EDGEWATER STATION #4	70-R2 *	(13)	8,712,543.13	5,193,745	4,651,429	256,549	2.94	18.1
	EDGEWATER STATION #5	70-R2 *	(13)	48,540,913.88	29,632,665	25,218,568	819,957	1.69	30.8
	NELSON DEWEY STATION #1	70-R2 *	(13)	9,673,675.32	3,930,177	7,001,076	583,423 **	6.03	12.0
	NELSON DEWEY STATION #2	70-R2 *	(12)	5,916,713.97	5,206,037	1,420,683	118,390 **	2.00	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	70-R2 *	(12)	492,663.28	84,664	467,119	38,927 **	7.90	12.0
	ROCK RIVER UNIT #1			0.00	371,629	0	0	-	-
	ROCK RIVER UNIT #2			0.00	132,047	0	0	-	-
	ROCK RIVER UNIT #1 & #2 - COMMON			0.00	45,333	0	0	-	-
	GENCO EAST	70-R2 *	0	95,593.53	9,619	85,975	2,623	2.74	32.8
	COLUMBIA #1 & #2 - COMMON	70-R2 *	(18)	127,891.06	79,088	71,823	2,826	2.21	25.4
	TOTAL ACCOUNT 314 - TURBOGENERATOR UNITS			107,644,749.20	62,719,863	61,224,946	2,912,943	2.71	
315.00	ACCESSORY ELECTRIC EQUIPMENT								
	BLACKHAWK STATION #3			0.00	20,126	0	0	-	-
	BLACKHAWK STATION #4			0.00	42,014	0	0	-	-
	BLACKHAWK STATION #3 & #4			0.00	53,738	0	0	-	-
	COLUMBIA #1	55-R1 *	(18)	3,648,544.58	2,339,882	1,965,401	92,558	2.54	21.2
	COLUMBIA #2	55-R1 *	(18)	5,650,698.10	3,645,145	3,022,679	127,990	2.27	23.6
	EDGEWATER STATION #3	55-R1 *	(12)	2,182,591.61	700,251	1,744,252	145,354 **	6.66	12.0
	EDGEWATER STATION #4	55-R1 *	(13)	2,196,602.27	1,372,467	1,109,694	65,451	2.98	17.0
	EDGEWATER STATION #5	55-R1 *	(13)	18,920,892.03	11,999,832	9,380,776	338,665	1.79	27.7
	NELSON DEWEY STATION #1	55-R1 *	(13)	1,834,729.15	1,067,384	1,005,860	83,822 **	4.57	12.0
	NELSON DEWEY STATION #2	55-R1 *	(12)	1,403,202.28	796,312	775,275	64,606 **	4.60	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	55-R1 *	(12)	1,658,765.44	1,678,795	179,022	14,919 **	0.90	12.0
	ROCK RIVER UNIT #1			0.00	217,853	0	0	-	-
	ROCK RIVER UNIT #2			0.00	216,189	0	0	-	-
	ROCK RIVER UNIT #1 & #2 - COMMON			0.00	312,306	0	0	-	-
	COLUMBIA #1 & #2 - COMMON	55-R1 *	(18)	2,516,955.28	1,956,822	1,013,185	44,402	1.76	22.8
	TOTAL ACCOUNT 315 - ACCESSORY ELECTRIC EQUIPMENT			40,012,980.74	26,419,116	20,196,144	977,767	2.44	

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	Depreciable Group	Survivor Curve		Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount		Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)		(3)	(4)	(5)	(6)	(7)		(8)=(7)/(4)	(9)=(6)/(7)
315.10	ACCESSORY ELECTRIC EQUIPMENT- COMBUSTION INITIATIVE										
	COLUMBIA #1	10-SQ		0	2,563,609.56	156,921	2,406,689	425,210		16.59	5.7
	COLUMBIA #2	10-SQ		0	4,365,860.13	1,149,438	3,216,422	677,606		15.52	4.7
	EDGEWATER STATION #5	10-SQ		0	717,013.16	279,709	437,304	67,278		9.38	6.5
	TOTAL ACCOUNT 315.10 - ACCESS. ELEC. EQUIP. - COMBUSTION INITIATIVE				7,646,482.85	1,586,068	6,060,415	1,170,094		15.30	
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT										
	BLACKHAWK STATION #3				0.00	18,160	0	0		-	-
	BLACKHAWK STATION #4				0.00	19,160	0	0		-	-
	BLACKHAWK STATION #3 & #4	43-S0.5	*	(30)	21,669.36	47,653	(19,483)	0		-	-
	COLUMBIA #1	43-S0.5	*	(18)	869,277.73	518,378	507,370	25,626		2.95	19.8
	COLUMBIA #2	43-S0.5	*	(18)	709,495.74	365,645	471,560	20,963		2.95	22.5
	EDGEWATER STATION #3	43-S0.5	*	(12)	1,456,820.59	965,465	666,174	55,515	**	3.81	12.0
	EDGEWATER STATION #4	43-S0.5	*	(13)	1,393,182.99	551,931	1,022,366	59,691		4.28	17.1
	EDGEWATER STATION #5	43-S0.5	*	(13)	10,738,442.25	5,861,648	6,272,792	249,861		2.33	25.1
	NELSON DEWEY STATION #1	43-S0.5	*	(13)	1,176,369.92	440,533	888,765	74,064	**	6.30	12.0
	NELSON DEWEY STATION #2	43-S0.5	*	(12)	1,046,722.92	250,239	922,091	76,841	**	7.34	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	43-S0.5	*	(12)	1,542,539.27	1,178,284	549,360	45,780	**	2.97	12.0
	ROCK RIVER UNIT #1	43-S0.5	*	(25)	162,612.02	185,244	18,021	18,021		11.08	1.0
	ROCK RIVER UNIT #2	43-S0.5	*	(25)	162,611.94	185,182	18,083	18,083		11.12	1.0
	ROCK RIVER UNIT #1 & #2 - COMMON	43-S0.5	*	(25)	23,798.60	29,748	0	0		-	-
	GENCO EAST	43-S0.5	*	0	67,541.22	16,821	50,720	1,779		2.63	28.5
	COLUMBIA #1 & #2 - COMMON	43-S0.5	*	(18)	973,281.40	715,851	432,621	21,415		2.20	20.2
	TOTAL ACCOUNT 316 - MISCELLANEOUS POWER PLANT EQUIPMENT				20,344,365.95	11,349,942	11,800,440	667,638		3.28	
316.10	MISCELLANEOUS POWER PLANT EQUIPMENT- AIR MONITORING EQUIPMENT										
	COLUMBIA #1	10-S0.5		0	650,856.58	66,869	583,988	74,649		11.47	7.8
	COLUMBIA #2	10-S0.5		0	590,788.37	60,692	530,096	67,758		11.47	7.8
	EDGEWATER STATION #3	10-S0.5		0	451,240.87	32,814	418,427	34,869	**	7.73	12.0
	EDGEWATER STATION #4	10-S0.5		0	375,464.33	30,743	344,721	42,416		11.30	8.1
	EDGEWATER STATION #5	10-S0.5		0	208,330.85	167,542	40,789	5,993		2.88	6.8
	NELSON DEWEY STATION #1	10-S0.5		0	474,069.62	44,294	429,776	35,815	**	7.55	12.0
	NELSON DEWEY STATION #2	10-S0.5		0	474,069.90	44,294	429,776	35,815	**	7.55	12.0
	TOTAL ACCOUNT 316.10 - MISC. POWER PLANT EQUIP.- AIR MONITORING EQUIPMENT				3,224,820.52	447,248	2,777,573	297,314		9.22	

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	Depreciable Group (1)	Survivor Curve (2)	Net Salvage (3)	Original Cost as of December 31, 2010 (4)	Book Reserve (5)	Future Book Accruals (6)	Calculated Annual Accrual Amount (7)		Calculated Annual Accrual Rate (8)=(7)/(4)	Composite Remaining Life (9)=(6)/(7)
316.20	MISCELLANEOUS POWER PLANT EQUIPMENT- POWER OPERATED									
	COLUMBIA #1	20-L2.5	0	624,181.03	138,362	485,819	28,930		4.63	16.8
	COLUMBIA #2	20-L2.5	0	624,181.02	138,373	485,808	28,930		4.63	16.8
	EDGEWATER STATION #3	20-L2.5	0	12,892.86	629	12,264	1,022	**	7.93	12.0
	EDGEWATER STATION #4	20-L2.5	0	58,372.03	1,319	57,053	3,506		6.01	16.3
	EDGEWATER STATION #5	20-L2.5	0	93,524.33	8,078	85,446	5,250		5.61	16.3
	NELSON DEWEY STATION #1	20-L2.5	0	43,714.46	7,166	36,548	3,046	**	6.97	12.0
	NELSON DEWEY STATION #2	20-L2.5	0	43,714.45	12,732	30,982	2,582	**	5.91	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	20-L2.5	0	50,918.73	12,547	38,372	3,198	**	6.28	12.0
	COLUMBIA #1 & #2 - COMMON	20-L2.5	0	86,603.08	25,472	61,131	7,661		8.85	8.0
	TOTAL ACCOUNT 316.20 - MISC. POWER PLANT EQUIPMENT - POWER OPERATED			1,638,101.99	344,678	1,293,423	84,124		5.14	
316.30	MISCELLANEOUS POWER PLANT EQUIPMENT - CARS AND TRUCKS									
	COLUMBIA #1	10-L3	0	131,489.72	72,274	59,216	11,551		8.78	5.1
	COLUMBIA #2	10-L3	0	131,489.57	72,274	59,216	11,551		8.78	5.1
	EDGEWATER STATION #3	10-L3	0	105,766.89	96,247	9,520	793	**	0.75	12.0
	EDGEWATER STATION #4	10-L3	0	93,584.93	85,448	8,137	1,788		1.91	4.6
	EDGEWATER STATION #5	10-L3	0	159,460.75	143,374	16,087	3,760		2.36	4.3
	NELSON DEWEY STATION #1	10-L3	0	14,498.08	9,413	5,085	424	**	2.92	12.0
	NELSON DEWEY STATION #2	10-L3	0	14,498.07	9,413	5,085	424	**	2.92	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	10-L3	0	35,207.24	23,090	12,117	1,010	**	2.87	12.0
	ROCK RIVER UNIT #1	10-L3	0	17,508.93	10,306	7,203	958		5.47	7.5
	ROCK RIVER UNIT #2	10-L3	0	17,508.91	10,297	7,212	959		5.48	7.5
	ROCK RIVER UNIT #1 & #2 - COMMON	10-L3	0	248,378.10	234,854	13,524	5,382		2.17	2.5
	TOTAL ACCOUNT 316.30 - MISCELLANEOUS POWER PLANT EQUIPMENT - CARS			969,391.19	766,990	202,402	38,600		3.98	
316.40	MISCELLANEOUS POWER PLANT EQUIPMENT - MISCELLANEOUS TOOLS									
	COLUMBIA #1	25-SQ	0	287,369.62	43,839	243,531	11,881		4.13	20.5
	COLUMBIA #2	25-SQ	0	287,369.66	43,839	243,531	11,881		4.13	20.5
	EDGEWATER STATION #3	25-SQ	0	153,479.16	63,972	89,507	7,459	**	4.86	12.0
	EDGEWATER STATION #4	25-SQ	0	339,055.78	49,582	289,474	13,920		4.11	20.8
	EDGEWATER STATION #5	25-SQ	0	548,788.17	81,975	466,813	22,497		4.10	20.8
	NELSON DEWEY STATION #1	25-SQ	0	236,177.80	24,582	211,596	17,633	**	7.47	12.0
	NELSON DEWEY STATION #2	25-SQ	0	236,177.73	36,024	200,154	16,680	**	7.06	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	25-SQ	0	136,938.89	92,845	44,094	3,675	**	2.68	12.0
	ROCK RIVER UNIT #1	25-SQ	0	16,081.26	4,846	11,235	533		3.31	21.1
	ROCK RIVER UNIT #2	25-SQ	0	16,081.26	4,442	11,639	552		3.43	21.1
	GENCO EAST	25-SQ	0	98,083.40	27,929	70,154	3,743		3.82	18.7
	COLUMBIA #1 & #2 - COMMON	25-SQ	0	119,824.69	76,459	43,366	3,957		3.30	11.0
	TOTAL ACCOUNT 316.40 - MISCELLANEOUS POWER PLANT EQUIPMENT - MISC.			2,475,427.42	550,334	1,925,094	114,410		4.62	

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	Depreciable Group (1)	Survivor Curve (2)	Net Salvage (3)	Original Cost as of December 31, 2010 (4)	Book Reserve (5)	Future Book Accruals (6)	Calculated Annual Accrual Amount (7)	Calculated Annual Accrual Rate (8)=(7)/(4)	Composite Remaining Life (9)=(6)/(7)
316.50	MISCELLANEOUS POWER PLANT EQUIPMENT - DP EQUIPMENT								
	COLUMBIA #1	7-SQ	0	67,997.60	40,374	27,624	10,376	15.26	2.7
	COLUMBIA #2	7-SQ	0	68,045.54	40,426	27,620	10,373	15.24	2.7
	EDGEWATER STATION #3	7-SQ	0	198,331.11	120,717	77,614	6,468 **	3.26	12.0
	EDGEWATER STATION #4	7-SQ	0	88,086.23	86,632	1,454	224	0.25	6.5
	EDGEWATER STATION #5	7-SQ	0	145,227.47	139,920	5,307	868	0.60	6.1
	NELSON DEWEY STATION #1	7-SQ	0	180,125.18	177,547	2,578	215 **	0.12	12.0
	NELSON DEWEY STATION #2	7-SQ	0	180,125.19	180,125	0	0	-	-
	NELSON DEWEY STATION #1 & #2 - COMMON	7-SQ	0	125,378.64	125,379	0	0	-	-
	GENCO EAST	7-SQ	0	1,056,490.83	1,054,892	1,599	246	0.02	6.5
	COLUMBIA #1 & #2 - COMMON	7-SQ	0	97,825.69	97,826	0	0	-	-
	TOTAL ACCOUNT 316.50 - MISC. POWER PLANT EQUIPMENT - DP EQUIPMENT			2,207,633.48	2,063,838	143,796	28,770	1.30	
316.60	MISCELLANEOUS POWER PLANT EQUIPMENT - FURNITURE								
	COLUMBIA #1	20-SQ	0	35,309.88	7,457	27,853	1,699	4.81	16.4
	COLUMBIA #2	20-SQ	0	34,027.04	7,880	26,147	1,568	4.61	16.7
	EDGEWATER STATION #3	20-SQ	0	9,066.73	3,192	5,875	490 **	5.40	12.0
	EDGEWATER STATION #4	20-SQ	0	36,022.03	9,621	26,401	1,822	5.06	14.5
	EDGEWATER STATION #5	20-SQ	0	57,714.95	15,361	42,354	2,924	5.07	14.5
	NELSON DEWEY STATION #1	20-SQ	0	12,481.93	1,275	11,207	934 **	7.48	12.0
	NELSON DEWEY STATION #2	20-SQ	0	12,481.84	1,382	11,100	925 **	7.41	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	20-SQ	0	12,177.88	6,166	6,012	501 **	4.11	12.0
	COLUMBIA #1 & #2 - COMMON	20-SQ	0	3,983.37	3,859	124	19	0.48	6.5
	TOTAL ACCOUNT 316.60 - MISCELLANEOUS POWER PLANT EQUIPMENT - FURNITURE			213,265.65	56,193	157,073	10,882	5.10	
316.70	MISCELLANEOUS POWER PLANT EQUIPMENT - COMMUNICATION EQUIPMENT								
	COLUMBIA #1	15-SQ	0	26,468.79	3,232	23,237	2,164	8.18	10.7
	COLUMBIA #2	15-SQ	0	26,468.62	3,232	23,237	2,164	8.18	10.7
	EDGEWATER STATION #3	15-SQ	0	9,432.82	5,580	3,853	321 **	3.40	12.0
	EDGEWATER STATION #4	15-SQ	0	30,997.31	14,456	16,541	2,978	9.61	5.6
	EDGEWATER STATION #5	15-SQ	0	52,902.87	28,133	24,770	4,325	8.18	5.7
	NELSON DEWEY STATION #1	15-SQ	0	8,870.86	2,012	6,859	572 **	6.44	12.0
	NELSON DEWEY STATION #2	15-SQ	0	8,870.78	30	8,841	737 **	8.31	12.0
	NELSON DEWEY STATION #1 & #2 - COMMON	15-SQ	0	163,683.42	81,612	82,071	6,839 **	4.18	12.0
	COLUMBIA #1 & #2 - COMMON	15-SQ	0	91,478.76	86,089	5,390	3,593	3.93	1.5
	TOTAL ACCOUNT 316.70 - MISC. POWER PLANT EQUIP. - COMMUNICATION EQUIP.			419,174.23	224,376	194,799	23,693	5.65	

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	Depreciable Group	Survivor Curve		Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount		Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)		(3)	(4)	(5)	(6)	(7)		(8)=(7)/(4)	(9)=(6)/(7)
316.80	MISCELLANEOUS POWER PLANT EQUIPMENT- COMBUSTION INITIATIVE										
	COLUMBIA #1	10-SQ		0	73,880.73	29,112	44,769	17,560		23.77	2.5
	COLUMBIA #2	10-SQ		0	73,880.90	29,112	44,769	17,560		23.77	2.5
	EDGEWATER STATION #3	10-SQ		0	216,875.11	194,740	22,135	1,845	**	0.85	12.0
	EDGEWATER STATION #4	10-SQ		0	106,249.24	90,602	15,647	10,431		9.82	1.5
	EDGEWATER STATION #5	10-SQ		0	1,099,736.27	921,364	178,372	122,914		11.18	1.5
	NELSON DEWEY STATION #1 & #2 - COMMON	10-SQ		0	60,124.35	55,999	4,125	344	**	0.57	12.0
	GENCO EAST	10-SQ		0	507,883.56	432,781	75,103	16,690		3.29	4.5
	TOTAL ACCOUNT 316.80 - MISC. POWER PLANT EQUIP. - COMBUSTION INITIATIVE				2,138,630.16	1,753,710	384,920	187,343		8.76	
	TOTAL STEAM PRODUCTION PLANT				**830,017,073.73**	**502,934,598**	**427,837,039**	**27,223,077**		**3.28**	
	HYDROELECTRIC PRODUCTION PLANT										
331.00	STRUCTURES AND IMPROVEMENTS										
	KILBOURN	80-S1	*	(5)	808,677.65	126,085	723,027	30,486		3.77	23.7
	PRAIRE DU SAC	80-S1	*	(5)	951,189.13	500,324	498,425	24,375		2.56	20.4
	TOTAL ACCOUNT 331 - STRUCTURES AND IMPROVEMENTS				1,759,866.78	626,409	1,221,452	54,861		3.12	
332.00	RESERVOIRS, DAMS AND WATERWAYS										
	KILBOURN	100-S1.5	*	(25)	1,920,307.94	1,098,561	1,301,824	52,596		2.74	24.8
	PRAIRE DU SAC	100-S1.5	*	(25)	13,258,410.96	3,697,818	12,875,196	609,560		4.60	21.1
	TOTAL ACCOUNT 332 - RESERVOIRS, DAMS AND WATERWAYS				15,178,718.90	4,796,379	14,177,020	662,156		4.36	
333.00	WATER WHEELS, TURBINES AND GENERATOR										
	KILBOURN	70-R1.5	*	(15)	1,144,395.96	714,166	601,889	25,365		2.22	23.7
	PRAIRE DU SAC	70-R1.5	*	(15)	1,274,647.32	1,208,389	257,455	12,526		0.98	20.6
	TOTAL ACCOUNT 333 - WATER WHEELS, TURBINES AND GENERATORS				2,419,043.28	1,922,555	859,344	37,891		1.57	
334.00	ACCESSORY ELECTRIC EQUIPMENT										
	KILBOURN	40-R0.5	*	(5)	1,260,933.77	924,476	399,504	20,677		1.64	19.3
	PRAIRE DU SAC	40-R0.5	*	(5)	1,502,397.54	784,545	792,972	43,852		2.92	18.1
	TOTAL ACCOUNT 334 - ACCESSORY ELECTRIC EQUIPMENT				2,763,331.31	1,709,021	1,192,476	64,529		2.34	
335.00	MISCELLANEOUS POWER PLANT EQUIPMENT										
	KILBOURN	50-R2.5	*	0	304,367.24	147,004	157,363	6,808		2.24	23.1
	PRAIRE DU SAC	50-R2.5	*	0	1,027,411.10	552,758	474,653	23,288		2.27	20.4
	TOTAL ACCOUNT 335 - MISCELLANEOUS POWER PLANT EQUIPMENT				1,331,778.34	699,762	632,016	30,096		2.26	
	TOTAL HYDROELECTRIC PRODUCTION PLANT				**23,452,738.61**	**9,754,126**	**18,082,308**	**849,533**		**3.62**	

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	Depreciable Group	Survivor Curve	Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	OTHER PRODUCTION PLANT								
340.10	LAND RIGHTS								
	CEDAR RIDGE WIND FARM	SQUARE *	0	4,779,593.96	324,952	4,454,642	161,987	3.39	27.5
	BENT TREE WIND FARM	SQUARE *	0	13,380,559.25	0	13,380,559	438,707	3.28	30.5
	TOTAL ACCOUNT 340.1 - LAND RIGHTS			18,160,153.21	324,952	17,835,201	600,694	3.31	
341.00	STRUCTURES AND IMPROVEMENTS								
	ROCK RIVER CT #3	65-R3 *	(20)	126,263.88	124,293	27,224	5,021	3.98	5.4
	ROCK RIVER CT #4	65-R3 *	(19)	110,066.94	94,516	36,464	4,317	3.92	8.4
	ROCK RIVER CT #5	65-R3 *	(21)	22,017.40	8,484	18,157	1,585	7.20	11.5
	ROCK RIVER CT #6	65-R3 *	(21)	22,017.34	8,484	18,157	1,585	7.20	11.5
	ROCK RIVER CT #5 & #6 - COMMON	65-R3 *	(12)	81,059.85	79,329	11,458	1,045	1.29	11.0
	FOND DU LAC CT #2	65-R3 *	(9)	47,761.39	17,592	34,468	1,491	3.12	23.1
	FOND DU LAC CT #3	65-R3 *	(9)	44,644.17	15,073	33,589	1,451	3.25	23.1
	FOND DU LAC CT #2 & #3 - COMMON	65-R3 *	(9)	1,404,064.59	1,206,357	324,073	14,300	1.02	22.7
	SHEBOYGAN FALLS CAPITAL LEASE	65-R3 *	0	11,977,722.81	3,329,670	8,648,053	599,726	5.01	14.4
	SHEEPSKIN CT	65-R3 *	(2)	124,577.50	123,311	3,758	685	0.55	5.5
	CEDAR RIDGE WIND FARM	65-R3 *	(9)	12,021,148.69	587,577	12,515,475	461,654	3.84	27.1
	NEENAH	65-R3 *	(6)	5,257,813.54	1,292,492	4,280,790	130,392	2.48	32.8
	BENT TREE WIND FARM	65-R3 *	(5)	2,306,605.79	0	2,421,936	80,597	3.49	30.0
	CAPSTONE - GLACIER RIDGE	65-R3 *	(1)	52,014.79	18,544	33,991	9,712	18.67	3.5
	TOTAL ACCOUNT 341 - STRUCTURES AND IMPROVEMENTS			33,597,778.68	6,905,722	28,407,593	1,313,561	3.91	
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES								
	ROCK RIVER CT #3	50-S3 *	(20)	106,800.84	105,793	22,368	4,285	4.01	5.2
	ROCK RIVER CT #4	50-S3 *	(19)	297,839.17	289,875	64,554	8,267	2.78	7.8
	ROCK RIVER CT #5	50-S3 *	(21)	358,752.12	130,169	303,921	26,487	7.38	11.5
	ROCK RIVER CT #6	50-S3 *	(21)	280,954.52	75,897	264,058	23,046	8.20	11.5
	ROCK RIVER CT #5 & #6 - COMMON	50-S3 *	(12)	231,462.66	227,572	31,666	2,945	1.27	10.8
	FOND DU LAC CT #2	50-S3 *	(9)	380,105.75	173,173	241,142	10,873	2.86	22.2
	FOND DU LAC CT #3	50-S3 *	(9)	377,637.17	172,231	239,394	10,794	2.86	22.2
	FOND DU LAC CT #2 & #3 - COMMON	50-S3 *	(9)	2,539,823.50	1,358,721	1,409,687	64,393	2.54	21.9
	SHEBOYGAN FALLS CAPITAL LEASE	50-S3 *	0	1,183,433.04	326,385	857,048	59,148	5.00	14.5
	SHEEPSKIN CT	50-S3 *	(2)	99,957.76	74,428	27,529	5,467	5.47	5.0
	NEENAH	50-S3 *	(6)	7,045,268.98	1,635,162	5,832,823	177,369	2.52	32.9
	TOTAL ACCOUNT 342 - FUEL HOLDERS, PRODUCERS AND ACCESSORIES			12,902,035.51	4,569,406	9,294,190	393,074	3.05	
343.00	PRIME MOVERS								
	ROCK RIVER CT #3	60-R3 *	(20)	2,339,998.76	2,357,953	450,046	84,494	3.61	5.3
	ROCK RIVER CT #4	60-R3 *	(19)	1,296,798.34	1,291,902	251,288	30,350	2.34	8.3
	ROCK RIVER CT #5	60-R3 *	(21)	3,971,559.16	3,628,685	1,176,902	104,574	2.63	11.3
	ROCK RIVER CT #6	60-R3 *	(21)	3,580,775.72	3,470,097	862,642	77,739	2.17	11.1
	ROCK RIVER CT #5 & #6 - COMMON	60-R3 *	(12)	417,989.82	382,757	85,392	7,495	1.79	11.4
	FOND DU LAC CT #2	60-R3 *	(9)	18,541,523.07	8,604,618	11,605,642	511,664	2.76	22.7
	FOND DU LAC CT #3	60-R3 *	(9)	23,310,268.28	9,781,242	15,626,950	686,349	2.94	22.8

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	Depreciable Group	Survivor Curve	Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
343.00	PRIME MOVERS, cont.								
	FOND DU LAC CT #2 & #3 - COMMON	60-R3 *	(9)	199,857.09	116,389	101,455	4,521	2.26	22.4
	SHEBOYGAN FALLS CAPITAL LEASE	60-R3 *	0	63,592,926.76	17,666,693	45,926,234	3,189,322	5.02	14.4
	SHEEPSKIN CT	60-R3 *	(2)	3,336,448.18	3,265,793	137,384	25,025	0.75	5.5
	NEENAH	60-R3 *	(6)	7,241,854.10	1,766,552	5,909,813	180,839	2.50	32.7
	CAPSTONE - SAUK COUNTY LANDFILL	60-R3 *	(1)	608,475.90	307,504	307,057	122,823	20.19	2.5
	TOTAL ACCOUNT 343 - PRIME MOVERS			128,438,475.18	52,640,185	82,440,805	5,025,195	3.91	
344.00	GENERATORS								
	ROCK RIVER CT #3	25-S0.5 *	(20)	496,560.88	501,526	94,347	41,461	8.35	2.3
	ROCK RIVER CT #4	25-S0.5 *	(19)	485,717.46	471,738	106,266	27,142	5.59	3.9
	ROCK RIVER CT #5	25-S0.5 *	(21)	693,852.77	166,780	672,782	64,542	9.30	10.4
	ROCK RIVER CT #6	25-S0.5 *	(21)	730,401.83	192,952	690,834	66,340	9.08	10.4
	ROCK RIVER CT #5 & #6 - COMMON	25-S0.5 *	(12)	1,013,043.77	922,450	212,159	49,803	4.92	4.3
	FOND DU LAC CT #2	25-S0.5 *	(9)	3,752,327.01	1,069,409	3,020,627	239,232	6.38	12.6
	FOND DU LAC CT #3	25-S0.5 *	(9)	3,717,045.06	1,064,093	2,987,486	236,758	6.37	12.6
	FOND DU LAC CT #2 & #3 - COMMON	25-S0.5 *	(9)	82,168.35	34,017	55,547	4,273	5.20	13.0
	SHEBOYGAN FALLS CAPITAL LEASE	25-S0.5 *	0	36,401,407.94	8,903,882	27,497,526	2,194,535	6.03	12.5
	SHEEPSKIN CT	25-S0.5 *	(2)	2,297,001.71	1,017,684	1,325,258	266,707	11.61	5.0
	CAPSTONE - GENERATION	25-S0.5 *	(1)	152,590.31	107,185	46,931	4,951	3.24	9.5
	CEDAR RIDGE WIND FARM	35-R2.5 *	(9)	127,153,015.34	10,709,798	127,886,989	5,127,786	4.03	24.9
	NEENAH	25-S0.5 *	(6)	78,673,109.87	17,075,435	66,318,061	2,944,852	3.74	22.5
	BENT TREE WIND FARM	35-R2.5 *	(5)	415,842,274.93	1,021,925	435,612,464	15,823,192	3.81	27.5
	BERLIN			0.00	116,512	0	0	-	-
	DEERE RIDGE	25-S0.5 *	25	259,751.04	140,231	54,582	54,582	21.01	1.0
	CAPSTONE - GLACIER RIDGE	25-S0.5 *	(1)	457,569.49	130,728	331,417	96,171	21.02	3.4
	CAPSTONE - SAUK COUNTY LANDFILL	25-S0.5 *	(1)	1,580,049.89	789,906	805,944	327,146	20.70	2.5
	CAPSTONE - SHEBOYGAN WWTP	25-S0.5 *	(1)	1,067,096.28	482,652	595,115	398,772	37.37	1.5
	TOTAL ACCOUNT 344 - GENERATORS			674,854,983.93	44,918,903	668,314,335	27,968,245	4.14	
345.00	ACCESSORY ELECTRIC EQUIPMENT								
	ROCK RIVER CT #3	45-R4 *	(20)	279,319.59	243,099	92,085	18,062	6.47	5.1
	ROCK RIVER CT #4	45-R4 *	(19)	226,013.75	195,063	73,893	9,669	4.28	7.6
	ROCK RIVER CT #5	45-R4 *	(21)	655,553.87	235,991	557,229	49,628	7.57	11.2
	ROCK RIVER CT #6	45-R4 *	(21)	613,341.01	233,748	508,395	45,286	7.38	11.2
	ROCK RIVER CT #5 & #6 - COMMON	45-R4 *	(12)	325,295.25	325,483	38,848	4,300	1.32	9.0
	FOND DU LAC CT #2	45-R4 *	(9)	3,262,004.77	1,191,896	2,363,689	108,403	3.32	21.8
	FOND DU LAC CT #3	45-R4 *	(9)	3,246,039.96	1,160,406	2,377,778	109,081	3.36	21.8
	FOND DU LAC CT #2 & #3 - COMMON	45-R4 *	(9)	1,372,159.80	498,660	996,994	46,393	3.38	21.5
	SHEBOYGAN FALLS CAPITAL LEASE	45-R4 *	0	10,564,153.07	2,940,819	7,623,334	527,566	4.99	14.5
	SHEEPSKIN CT	45-R4 *	(2)	621,722.69	481,536	152,621	27,770	4.47	5.5
	CEDAR RIDGE WIND FARM	45-R4 *	(9)	12,222,571.50	709,198	12,613,405	465,439	3.81	27.1
	NEENAH	45-R4 *	(6)	10,906,668.21	2,836,418	8,724,650	267,792	2.46	32.6
	BENT TREE WIND FARM	45-R4 *	(5)	12,107,498.30	72,444	12,640,429	420,927	3.48	30.0
	TOTAL ACCOUNT 345 - ACCESSORY ELECTRIC EQUIPMENT			56,402,341.77	11,124,761	48,763,350	2,100,316	3.72	

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	Depreciable Group	Survivor Curve		Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT									
	ROCK RIVER CT #3	60-R3	*	(20)	91,274.95	24,871	84,659	15,548	17.03	5.4
	ROCK RIVER CT #4	60-R3	*	(19)	722.56	646	214	26	3.60	8.2
	ROCK RIVER CT #5	60-R3	*	(21)	13,052.80	850	14,944	1,304	9.99	11.5
	ROCK RIVER CT #6	60-R3	*	(21)	23,483.66	8,399	20,016	1,757	7.48	11.4
	ROCK RIVER CT #5 & #6 - COMMON	60-R3	*	(12)	3,093.61	3,094	371	35	1.13	10.6
	FOND DU LAC CT #2	60-R3	*	(9)	140,648.96	13,306	140,001	6,053	4.30	23.1
	FOND DU LAC CT #3	60-R3	*	(9)	134,330.14	11,442	134,978	5,829	4.34	23.2
	FOND DU LAC CT #2 & #3 - COMMON	60-R3	*	(9)	608,101.75	198,610	464,221	20,597	3.39	22.5
	SHEBOYGAN FALLS CAPITAL LEASE	60-R3	*	0	59,304.01	23,786	35,518	2,467	4.16	14.4
	SHEEPSKIN CT	60-R3	*	(2)	73,621.63	21,074	54,020	9,856	13.39	5.5
	CEDAR RIDGE WIND FARM	60-R3	*	(9)	628,395.56	75,344	609,607	22,519	3.58	27.1
	NEENAH	60-R3	*	(6)	1,966,855.63	482,861	1,602,006	49,021	2.49	32.7
	BENT TREE WIND FARM	60-R3	*	(5)	223,192.26	18,699	215,653	7,217	3.23	29.9
	SHEB FALLS WPL	60-R3	*	(1)	162,173.83	6,434	157,362	10,900	6.72	14.4
	TOTAL ACCOUNT 346 - MISCELLANEOUS POWER PLANT EQUIPMENT				4,128,251.35	889,416	3,533,570	153,129	3.71	
346.10	MISCELLANEOUS POWER PLANT EQUIPMENT - A/V									
	CEDAR RIDGE WIND FARM	20-SQ		0	16,377.10	5,511	10,866	587	3.58	18.5
	TOTAL OTHER PRODUCTION PLANT				**928,500,396.73**	**121,378,856**	**858,599,910**	**37,554,801**	**4.04**	
	DISTRIBUTION PLANT									
361.00	STRUCTURES AND IMPROVEMENTS	56-R2.5		(10)	14,488,194.63	4,455,001	11,482,013	248,816	1.72	46.1
362.00	STATION EQUIPMENT	46-S0		(5)	176,482,097.28	55,279,150	130,027,052	3,299,260	1.87	39.4
362.30	STATION EQUIPMENT - COMMUNICATION EQUIPMENT	15-SQ		(5)	8,085,161.67	5,009,335	3,480,085	269,865	3.34	12.9
364.00	POLES, TOWERS AND FIXTURES	52-R2		(40)	268,616,628.29	115,489,245	260,574,035	6,285,235	2.34	41.5
365.00	OVERHEAD CONDUCTORS AND DEVICES	50-R2		(35)	343,806,508.61	93,516,360	370,622,427	9,211,917	2.68	40.2
366.00	UNDERGROUND CONDUIT	50-R2		(5)	29,529,982.45	5,129,448	25,877,034	598,704	2.03	43.2
367.00	UNDERGROUND CONDUCTORS AND DEVICES	40-R1.5		(10)	308,235,275.56	57,091,068	281,967,735	8,607,493	2.79	32.8
368.00	LINE TRANSFORMERS	40-R1		(5)	247,091,753.28	81,554,892	177,891,449	5,473,597	2.22	32.5
369.00	SERVICES	51-R1.5		(70)	17,479,776.45	12,836,188	16,879,432	407,309	2.33	41.4
369.20	SERVICES - UNDERGROUND	51-R1.5		(20)	94,493,930.95	29,670,821	83,721,896	2,030,023	2.15	41.2
370.10	METERS	15-L0	***	(10)	9,103,785.79	(7,721,763)	17,735,927	3,227,945	35.46	5.5
370.20	METERS - SPECIAL METER INSTALLATION	17-R0.5		(10)	185,578.72	(14,141)	218,278	17,789	9.59	12.3
370.30	METERS - METERING DEVICES	38-R1		(10)	9,976,363.34	7,915,436	3,058,564	98,332	0.99	31.1
370.40	METERS - AMI METERS	15-S2.5		(10)	62,769,953.93	6,068,300	62,978,649	4,758,828	7.58	13.2
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	25-R3		0	4,322,094.18	2,580,372	1,741,722	194,631	4.50	8.9
373.00	STREET LIGHTING AND SIGNAL SYSTEMS	40-R2.5		(10)	15,284,753.28	9,713,669	7,099,560	225,128	1.47	31.5
	TOTAL DISTRIBUTION PLANT				**1,609,951,838.41**	**478,573,381**	**1,455,355,858**	**44,954,872**	**2.79**	

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	GENERAL PLANT								
390.00	STRUCTURES AND IMPROVEMENTS	40-R0.5	(5)	2,758,101.63	386,400	2,509,607	76,858	2.79	32.7
390.10	STRUCTURES AND IMPROVEMENTS - SMALL	40-R0.5	(5)	1,290.44	1,264	91	2	0.15	45.5
391.10	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	44,185.69	23,370	20,816	2,036	4.61	10.2
391.20	OFFICE FURNITURE AND EQUIP - LARGE COMPUTER EQUIPMENT								
	FULLY ACCRUED	Fully Accrued		1,275,329.35	1,275,329	0	0	-	-
	AMORTIZED	5-SQ	0	1,997,294.81	1,363,121	634,174	288,154	14.43	2.2
	TOTAL ACCOUNT 391.2 - LARGE COMPUTER EQUIPMENT			3,272,624.16	2,638,450	634,174	288,154	8.80	2.2
391.30	OFFICE FURNITURE AND EQUIP - LARGE COMPUTER SOFTWARE								
	FULLY ACCRUED	Fully Accrued		6,200,760.22	6,200,760	0	0	-	-
	AMORTIZED	5-SQ	0	445,474.95	209,182	236,293	61,514	13.81	3.8
	TOTAL ACCOUNT 391.3 - LARGE COMPUTER SOFTWARE			6,646,235.17	6,409,942	236,293	61,514	0.93	3.8
392.00	TRANSPORTATION EQUIPMENT	12-R1.5	15	30,549,176.14	8,432,558	17,534,242	2,362,213	7.73	7.4
393.00	STORES EQUIPMENT	20-SQ	0	430,545.56	20,974	409,572	23,593	5.48	17.4
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	7,751,860.56	2,479,415	5,272,446	275,472	3.55	19.1
395.00	LABORATORY EQUIPMENT	15-SQ	0	622,202.77	430,023	192,180	46,329	7.45	4.1
396.00	POWER OPERATED EQUIPMENT	14-L1.5	20	1,888,246.37	302,997	1,207,600	142,305	7.54	8.5
397.00	COMMUNICATION EQUIPMENT	15-SQ	0	437,711.35	175,702	262,009	28,682	6.55	9.1
	TOTAL GENERAL PLANT			**54,402,179.84**	**21,301,095**	**28,279,030**	**3,307,158**	**6.08**	
	TOTAL ELECTRIC PLANT			**3,446,324,227.32**	**1,133,942,056**	**2,788,154,145**	**113,889,441**		
	GAS PLANT								
	PRODUCTION PLANT								
305.00	STRUCTURES AND IMPROVEMENTS	50-R3	0	7,306.94	65,347	(58,040)	0	-	-
	TOTAL PRODUCTION PLANT			**7,306.94**	**65,347**	**(58,040)**	**0**	**0.00**	

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	DISTRIBUTION PLANT								
375.00	STRUCTURES AND IMPROVEMENTS	55-R3	(5)	1,440,573.94	761,471	751,132	18,269	1.27	41.1
376.00	MAINS	54-R2	(15)	61,719.12	21,427	49,550	1,028	1.67	48.2
376.10	MAINS - STEEL	54-R2	(15)	79,302,229.05	45,376,909	45,820,654	1,079,297	1.36	42.5
376.20	MAINS - PLASTIC	45-S2	(15)	112,015,813.47	35,076,882	93,741,303	2,763,463	2.47	33.9
378.00	MEASURING AND REGULATING EQUIPMENT - GENERAL	40-R1	(20)	6,169,314.34	2,629,267	4,773,910	143,612	2.33	33.2
379.00	MEASURING AND REGULATING EQUIPMENT - CITY GATE	45-R2.5	(20)	7,223,435.04	3,193,833	5,474,289	153,313	2.12	35.7
380.10	SERVICES - STEEL	39-R1.5	(45)	18,129,186.38	18,203,325	8,083,995	250,076	1.38	32.3
380.20	SERVICES - PLASTIC	38-R4	(20)	117,969,152.75	63,193,232	78,369,751	3,067,654	2.60	25.5
381.00	METERS	35-S0	(10)	32,278,095.77	16,767,888	18,747,917	671,440	2.08	27.9
381.10	METER MODULES	15-R3	(5)	19,861,907.40	1,773,860	19,081,143	1,421,384	7.16	13.4
383.00	HOUSE REGULATORS	35-S0.5	(10)	9,318,037.94	2,893,209	7,356,633	289,661	3.11	25.4
	TOTAL DISTRIBUTION PLANT			**403,769,465.20**	**189,891,303**	**282,250,277**	**9,859,197**	**2.44**	
	GENERAL PLANT								
391.10	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	92,994.16	30,755	62,239	4,015	4.32	15.5
391.20	OFFICE FURNITURE AND EQUIP - LARGE COMPUTER EQUIPMENT								
	FULLY ACCRUED	Fully Accrued		462,727.33	462,727	0	0	-	-
	AMORTIZED	5-SQ	0	867.87	356	512	512	59.00	1.0
	TOTAL ACCOUNT 391.2 - LARGE COMPUTER EQUIPMENT			463,595.20	463,083	512	512	0.11	1.0
391.30	OFFICE FURNITURE AND EQUIP - LARGE COMPUTER SOFTWARE								
	FULLY ACCRUED	Fully Accrued		1,518,756.20	1,518,756	0	0	-	-
	AMORTIZED	5-SQ	0	503,244.69	425,444	77,801	77,801	15.46	1.0
	TOTAL ACCOUNT 391.3 - LARGE COMPUTER SOFTWARE			2,022,000.89	1,944,200	77,801	77,801	3.85	1.0
392.00	TRANSPORTATION EQUIPMENT	12-R1.5	15	886,231.15	366,485	386,811	42,762	4.83	9.0
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	2,427,810.87	802,794	1,625,017	83,692	3.45	19.4
395.00	LABORATORY EQUIPMENT	15-SQ	0	205,917.16	163,397	42,520	14,979	7.27	2.8
396.00	POWER OPERATED EQUIPMENT	14-L1.5	20	242,203.10	83,444	110,318	17,372	7.17	6.4
397.00	COMMUNICATION EQUIPMENT	15-SQ	0	114,390.87	84,034	30,357	8,543	7.47	3.6
397.10	COMMUNICATION EQUIPMENT - SCADA								
	FULLY ACCRUED	Fully Accrued		134,604.47	134,604	0	0	-	-
	AMORTIZED	10-SQ	0	688,892.42	520,104	168,788	43,640	6.33	3.9
	TOTAL ACCOUNT 397.1 - COMMUNICATION EQUIP. - SCADA			823,496.89	654,708	168,788	43,640	5.30	3.9
	TOTAL GENERAL PLANT			**7,278,640.29**	**4,592,900**	**2,504,363**	**293,316**	**4.03**	
	TOTAL GAS PLANT			**411,055,412.43**	**194,549,550**	**284,696,600**	**10,152,513**		

WISCONSIN POWER AND LIGHT COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC, GAS AND COMMON PLANT AS OF DECEMBER 31, 2010

	Depreciable Group	Survivor Curve	Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	COMMON PLANT								
390.00	STRUCTURES AND IMPROVEMENTS	28-L1	0	61,934,106.19	32,535,571	29,398,535	1,309,976	2.12	22.4
390.10	LEASEHOLD IMPROVEMENTS	20-SQ	0	4,884,666.38	1,190,417	3,694,249	247,831	5.07	14.9
391.10	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	9,694,917.57	4,270,831	5,424,087	485,898	5.01	11.2
391.20	OFFICE FURNITURE AND EQUIP - LARGE COMPUTER EQUIPMENT								
	FULLY ACCRUED	Fully Accrued		7,831,697.99	7,831,698	0	0	-	-
	AMORTIZED	5-SQ	0	18,357,973.36	8,339,506	10,018,467	3,001,317	16.35	3.3
	TOTAL ACCOUNT 391.2 - LARGE COMPUTER EQUIPMENT			26,189,671.35	16,171,204	10,018,467	3,001,317	11.46	3.3
391.30	OFFICE FURNITURE AND EQUIP - LARGE COMPUTER SOFTWARE								
	FULLY ACCRUED	Fully Accrued		41,892,644.14	41,892,644	0	0	-	-
	AMORTIZED	5-SQ	0	14,843,867.42	5,940,176	8,903,691	2,818,523	18.99	3.2
	TOTAL ACCOUNT 391.3 - LARGE COMPUTER SOFTWARE			56,736,511.56	47,832,820	8,903,691	2,818,523	4.97	3.2
392.00	TRANSPORTATION EQUIPMENT	12-R1.5	15	21,151,500.89	11,223,588	6,755,188	1,079,798	5.11	6.3
393.00	STORES EQUIPMENT	20-SQ	0	557,150.28	129,131	428,019	29,193	5.24	14.7
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	3,728,849.16	1,253,574	2,475,275	143,451	3.85	17.3
395.00	LABORATORY EQUIPMENT	15-SQ	0	3,970.94	3,101	870	580	14.61	1.5
396.00	POWER OPERATED EQUIPMENT	14-L1.5	20	2,491,505.36	554,544	1,438,660	195,326	7.84	7.4
397.00	COMMUNICATION EQUIPMENT - TELEPHONE								
	FULLY ACCRUED	Fully Accrued		1,213,489.70	1,213,490	0	0	-	-
	AMORTIZED	6-SQ	0	3,352,491.06	1,610,705	1,741,786	328,192	9.79	5.3
	TOTAL ACCOUNT 397 - COMMUNICATION EQUIP. - TELEPHONE			4,565,980.76	2,824,195	1,741,786	328,192	7.19	5.3
397.40	COMMUNICATION EQUIPMENT - RADIO AND TOWERS	15-SQ	0	23,504,754.86	8,242,639	15,262,116	1,348,837	5.74	11.3
	TOTAL COMMON PLANT			**215,443,585.30**	**126,231,615**	**85,540,943**	**10,988,922**	**5.10**	

WISCONSIN POWER AND LIGHT COMPANY

ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND
CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC, GAS AND COMMON PLANT AS OF DECEMBER 31, 2010

	Depreciable Group	Survivor Curve	Net Salvage	Original Cost as of December 31, 2010	Book Reserve	Future Book Accruals	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	Composite Remaining Life
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	NONDEPRECIABLE PLANT								
	ELECTRIC PLANT								
301.00	ORGANIZATION			51,050.00					
302.00	FRANCHISES AND CONSENTS			2,845,924.57	719,113				
303.60	INTANGIBLE PLANT			4,474,686.62	10,358				
310.00	LAND AND LAND RIGHTS			4,163,688.16	(75,535)				
330.00	LAND AND LAND RIGHTS			1,218,073.00					
340.00	LAND AND LAND RIGHTS			1,785,763.64	787				
360.00	LAND AND LAND RIGHTS			10,108,491.64	124,099				
389.00	LAND AND LAND RIGHTS			141,530.15	1,567				
	TOTAL ELECTRIC PLANT			**24,789,207.78**	**780,389**				
	GAS PLANT								
301.00	ORGANIZATION			9,841.00					
304.00	LAND			21,803.36					
374.00	LAND AND LAND RIGHTS			179,759.10	5,795				
389.00	LAND AND LAND RIGHTS			(965.15)					
	TOTAL GAS PLANT			**210,438.31**	**5,795**				
	COMMON PLANT								
301.00	ORGANIZATION			1,281.00					
389.00	LAND AND LAND RIGHTS			2,554,373.75	(403,384)				
	TOTAL COMMON PLANT			**2,555,654.75**	**(403,384)**				
	TOTAL NONDEPRECIABLE PLANT			**27,555,300.84**	**382,800**				
	TOTAL ELECTRIC, GAS & COMMON PLANT			**4,100,378,525.89**	**1,455,106,021**	**3,158,391,688**	**135,030,876**		

* LIFE SPAN PROCEDURE IS USED. CURVE SHOWN IS INTERIM SURVIVOR CURVE
** ANNUAL DEPRECIATION EXPENSE REPRESENTS A 10 YEAR RECOVERY PATTERN FROM 1/1/2013 TO MITIGATE EFFECT OF EARLY UNIT RETIREMENT
*** REMAINING INVESTMENT IS DEPRECIATED THROUGH 2018 BASED ON RECENT ORDER.

LG&E - KU

Analysis of Paddy's Run and Canal Dismantlement Costs

	Given Demolition Costs[1]	Canal Dismantlement Costs		Paddy's Run Dismantlement Costs	
		Nominal	Inflation Adjusted at Final Retirement	Nominal	Inflation Adjusted at Final Retirement
2012	$ 4.0 M [2]	$ 1.0 M	$ .2 M	$ 3.0 M	$ 1.3 M
2013	$ 5.0 M	$ 5.0 M	$ 1.0 M		
2014	$ 5.0 M	$ 5.0 M	$ .9 M		
2015	$ 3.8 M	$ 3.8 M	$ .7 M		
2016	$ 1.3 M			$ 1.3 M	$ .5 M
2017	$ 3.7 M [3]			$ 3.7 M	$ 1.3 M
2018	$ 3.7 M [3]			$ 3.7 M	$ 1.2 M
2019	$ 3.7 M [3]			$ 3.7 M	$ 1.2 M
Total	$ 30.1 M	$ 14.8 M	$ 2.7 M	$ 15.3 M	$ 5.3 M

	Canal	Paddy's Run
Year of Retirement	1974 [4]	1984 [4]
MW	50	195.8
$ / kW	$ 296.00	$ 78.14

Balance at Retirement	$ 28.7 M [5]	
Dismantlement	$ 15.3 M	$ 5.3 M
Pct (Demolition / Balance)	53.34%	18.65%

[1] Source: LG&E - KU Power Generation 2012-2016 MTP, Major Assumptions
[2] $4 M combined in 2012 for Engineering (both sites) and Paddy's Run Stacks. Allocated $1 M each for engineering.
[3] $11 M for 2017-2019 Allocated evenly
[4] Source: Platts. Paddy's Units 1-2 retired in 1979 and Units 5-6 Retired in 1984
[5] Source: Estimated from Service Life and Net Salvage Data. For the period 1982-1985 the Net Salvage data has $28.7 M more in retirements than the Service Life data. This balance is estimated to be Paddy's Run, which is not included in the Service Life data.

Louisville Gas and Electric

Analysis of Net Salvage Data for Paddy's Run and Cane Run Final Retirement Years

Year		Retirement	Cost of Removal	Reuse Salvage	Final Salvage	Net Salvage	Net Salvage Percent Total	Net Salvage Percent 3-Year Avg
	1981	(10,667,254)	132,201	-	(8,761)	(123,440)	1.16%	
	1982	(1,308,313)	37,530	-	(999)	(36,531)	2.79%	
	1983	(6,168,002)	35,207	-	(11,234)	(23,973)	0.39%	1.01%
	1984	(31,773,360)	1,548,478	-	(25,077)	(1,523,401)	4.79%	4.04%
	1985	(20,230,825)	1,929,690	-	(24,844)	(1,904,846)	9.42%	5.93%
	1986	(4,706,609)	2,072,550	-	(34,239)	(2,038,311)	43.31%	9.64%
Total 1981 - 1986		*(74,854,363)*	*5,755,656*	-	*(105,154)*	*(5,650,502)*	*7.55%*	
	1995	(14,154,124)	1,163,105	234	(69,951)	(1,093,388)	7.72%	
	1996	(4,228,526)	1,496,516	4,089	(197,808)	(1,302,797)	30.81%	
	1997	(3,342,425)	403,004	-	(408,750)	5,746	-0.17%	11.00%
Total 1995 - 1997		*(21,725,075)*	*3,062,625*	*4,323*	*(676,509)*	*(2,390,439)*	*11.00%*	
Total 1981 - 1986, 1995 - 1997		**(96,579,438)**	**8,818,281**	**4,323**	**(781,663)**	**(8,040,941)**	**8.33%**	
Cane Run Scrap Recorded in 2009 (copper bus in basement)					(403,042)	403,042		
Total 1995 - 1997		(21,725,075)			(1,079,551)	(1,987,397)	9.15%	
Total 1981 - 1986, 1995 - 1997		(96,579,438)			(1,184,705)	(7,637,899)	7.91%	

Notes:

1. Data shown here includes both terminal and interim retirements. Terminal retirements can be separated for Cane Run 1-3 only. Cane Run removal cost and salvage, and Paddy's Run retirements, removal and salvage are not separated.
2. Paddy's Run retirements occurred in 1979 and 1984 per Platts. These retirements appear to have been recorded to 108 in the 1981-1986 timeframe
3. Cane Run 1-2 Retirements occurred on 1985, and were recorded for $18.7 M in the service life database.
4. Cane Run 3 retirement occurred in 1995 and was recorded for $10.1 M in the service life database.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-45

Responding Witness: John J. Spanos

Q1-45. Refer to page II-29 of the depreciation study and the life spans of the other production plant generating units.

a. Please explain the shorter life spans for the newer generating units and provide all evidence relied on that the units will be shorter-lived than the older units.

b. Please provide a copy of all independent analyses performed by Mr. Spanos to assess the reasonableness of the 30 year life spans for the new generating units, including, but not limited to, the actual lives of other combined cycle or CT generating units. If none, then please so state.

A1-45. a The newer and older generating units in the other production function represent different types of power plants. The Haefling units, constructed in 1970, are small secondary CTs that are run infrequently, and are primarily for peaking and/or black start purposes. As a result, these units experience minimal wear and tear and require less major maintenance and capital investment for continued operation. The additional other production units, Paddy's Run Unit 13, Brown 5-11 and Trimble County 5-10, are larger CTs that are run more frequently, often serving as intermediate units. Due to the higher operating hours, these units exhibit more wear and tear, have higher levels of maintenance and will require more frequent overhauls. As a result, due to the different operating characteristics, the smaller secondary CTs are expected to have longer lives than new CTs.

b. Given the operating characteristics of these units and his experience performing depreciation studies for other utilities, Mr. Spanos found the life spans for the Paddy's Run, Brown and Trimble County CTs to be reasonable. Absent any major capital investment, the range of lives for larger CTs is generally in the 30 to 40 year range. Please see the attachment for a sample listing of the life spans of combined cycle and simple cycle power plants used for depreciation studies in which Mr. Spanos' firm, Gannett Fleming, has been involved.

KENTUCKY UTILITIES/LOUISVILLE GAS & ELECTRIC

Life Spans of Representative Combined Cycle and Simple Cycle Gas Power Plants

YEAR OF STUDY	UTILITY	UNIT	LOCATION	LIFE SPAN
Combined Cycle Production				
2006	Dominion Resources, Inc.	Bellemeade	Virginia	36
2006	Dominion Resources, Inc.	Rosemary	North Carolina	36
2006	Dominion Resources, Inc.	Gordonsville	Virginia	34
2006	Dominion Resources, Inc.	Chesterfield 7	Virginia	36
2006	Dominion Resources, Inc.	Chesterfield 8	Virginia	36
2006	Dominion Resources, Inc.	Possum Point	Virginia	33
2008	Kansas City Power and Light	Hawthorn 6	Missouri	33
2010	Midamerican Energy Co.	GDMEC	Iowa	28
2008	Chugach Electric Assoc.	Beluga 6	Alaska	40
2008	Chugach Electric Assoc.	Beluga 7	Alaska	40
2009	Alliant Energy - Iowa	Emery	Iowa	27
2008	Entergy Arkansas, Inc.	Ouachita Unit 1	Louisiana	30
2008	Entergy Arkansas, Inc.	Ouachita Unit 2	Louisiana	30
2008	Entergy Arkansas, Inc.	Ouachita Unit 3	Louisiana	30
2009	Duke Energy Indiana	Noblesville Units 1 & 2	Indiana	35
2009	Duke Energy Indiana	Noblesville Units 3	Indiana	35
2009	Duke Energy Indiana	Noblesville Units 4	Indiana	35
2009	Duke Energy Indiana	Noblesville Units 5	Indiana	35
2009	Duke Energy Indiana	Cayuga CT Unit 4	Indiana	40
2008	Duke Energy Carolinas	Dan River	North Carolina	40
2009	Oklahoma Gas & Electric Co.	Redbud	Oklahoma	31
2009	Oklahoma Gas & Electric Co.	McClain Gas 1	Oklahoma	31
2009	Oklahoma Gas & Electric Co.	McClain Gas 2	Oklahoma	31
2009	Oklahoma Gas & Electric Co.	McClain Steam 1	Oklahoma	31
2006	Puget Sound Energy	Encogen	Washington	35
2006	Puget Sound Energy	Frederickson 1	Washington	35
2008	South Carolina Electric & Gas Co.	Urquhart 5 & 6	South Carolina	35
2008	South Carolina Electric & Gas Co.	Jasper	South Carolina	35
2011	Pacific Gas & Electric Company	Gateway Generating Station	California	30
2011	Pacific Gas & Electric Company	Colusa Generating Station	California	30
2007	Florida Power and Light Company	Lauderdale Unit 4	Florida	30
2007	Florida Power and Light Company	Lauderdale Unit 5	Florida	30
2007	Florida Power and Light Company	Ft. Meyers Unit 2	Florida	31
2007	Florida Power and Light Company	Manatee Unit 3	Florida	30
2007	Florida Power and Light Company	Martin Unit 3	Florida	30
2007	Florida Power and Light Company	Martin Unit 4	Florida	30
2007	Florida Power and Light Company	Martin Unit 8	Florida	30
2007	Florida Power and Light Company	Putnam Unit 1	Florida	42
2007	Florida Power and Light Company	Putnam Unit 2	Florida	43
2007	Florida Power and Light Company	Sanford Unit 4	Florida	30
2007	Florida Power and Light Company	Sanford Unit 5	Florida	30
2007	Florida Power and Light Company	Turkey Point Unit 5	Florida	30

KENTUCKY UTILITIES/LOUISVILLE GAS & ELECTRIC

Life Spans of Representative Combined Cycle and Simple Cycle Gas Power Plants

YEAR OF STUDY	UTILITY	UNIT	LOCATION	LIFE SPAN
2007	Florida Power and Light Company	West County Unit 1	Florida	30
2007	Florida Power and Light Company	West County Unit 2	Florida	30
2007	Florida Power and Light Company	West County Unit 3	Florida	30
2011	Black Hills Corporation	Pueblo Area	Colorado	35
2012	Chugach Electric Assoc.	South Central Project	Alaska	35
2011	Idaho Power	Danskin	Idaho	35
2011	Idaho Power	Bennett Mountain	Idaho	35
2009	Sierra Pacific Power Company	Tracy 8, 9, 10	Nevada	35
2010	Nevada Power Company	Harry Allen	Nevada	35
2010	Nevada Power Company	Higgins	Nevada	35
2010	Nevada Power Company	Lenzie CC 1	Nevada	35
2010	Nevada Power Company	Lenzie CC 2	Nevada	35
2010	Nevada Power Company	Silverhawk	Nevada	35
Simple Cycle Production				
2006	Dominion Resources, Inc.	Darbytown	Virginia	36
2006	Dominion Resources, Inc.	Remington	Virginia	36
2006	Dominion Resources, Inc.	Ladysmith	Virginia	36
2006	Dominion Resources, Inc.	Elizabeth River	Virginia	36
2008	Kansas City Power and Light	West Gardner	Kansas	35
2008	Kansas City Power and Light	Hawthorn 7	Missouri	35
2008	Kansas City Power and Light	Hawthorn 8	Missouri	35
2008	Kansas City Power and Light	Miami County	Kansas	35
2010	Midamerican Energy Co.	Pleasant Hill	Iowa	40
2009	Alliant Energy - Iowa	Lime Creek	Iowa	40
2009	Alliant Energy - Iowa	Burlington Terra Comfort	Iowa	28
2010	Greater Missouri Operations	South Harbor Unit 1	Missouri	35
2010	Greater Missouri Operations	South Harbor Unit 2	Missouri	35
2010	Greater Missouri Operations	South Harbor Unit 3	Missouri	35
2010	Greater Missouri Operations	Crossroads Unit 1	Mississippi	35
2010	Greater Missouri Operations	Crossroads Unit 2	Mississippi	35
2010	Greater Missouri Operations	Crossroads Unit 3	Mississippi	35
2010	Greater Missouri Operations	Crossroads Unit 4	Mississippi	35
2008	Entergy Mississippi, Inc.	Attala Unit 1	Mississippi	30
2009	Duke Energy Indiana	Cayuga CT Unit 4	Indiana	40
2009	Duke Energy Indiana	Madison	Ohio	40
2009	Duke Energy Indiana	Wheatland Unit 1	Indiana	35
2009	Duke Energy Indiana	Wheatland Unit 2	Indiana	35
2009	Duke Energy Indiana	Wheatland Unit 3	Indiana	35
2009	Duke Energy Indiana	Wheatland Unit 4	Indiana	35
2008	Duke Energy Carolinas	Lincoln	North Carolina	31
2008	Duke Energy Carolinas	Mill Creek	South Carolina	30
2009	Oklahoma Gas & Electric Co.	Horseshoe Lake 9 & 10	Oklahoma	35
2006	Omaha Public Power District	Cass County Unit 1	Nebraska	40

KENTUCKY UTILITIES/LOUISVILLE GAS & ELECTRIC

Life Spans of Representative Combined Cycle and Simple Cycle Gas Power Plants

YEAR OF STUDY	UTILITY	UNIT	LOCATION	LIFE SPAN
2006	Omaha Public Power District	Cass County Unit 2	Nebraska	40
2006	Omaha Public Power District	Sarpy County Unit 3	Nebraska	40
2006	Omaha Public Power District	Sarpy County Units 4 & 5	Nebraska	40
2008	South Carolina Electric & Gas Co.	Hagood Unit 4	South Carolina	34
2008	South Carolina Electric & Gas Co.	Urquhart 4	South Carolina	26
2010	Wisconsin Power and Light Co.	Fond Du Lac #2	Wisconsin	41
2010	Wisconsin Power and Light Co.	Fond Du Lac #3	Wisconsin	41
2010	Wisconsin Power and Light Co.	Neenah	Wisconsin	35
2008	Wisconsin Public Service Company	DePere	Wisconsin	35
2008	Wisconsin Public Service Company	Pulliam Unit 31	Wisconsin	34
2008	Wisconsin Public Service Company	West Marinette Unit 33	Wisconsin	45
2008	Wisconsin Public Service Company	West Marinette Unit 34	Wisconsin	36
2007	Florida Power and Light Company	Fort Myers Unit 3	Florida	30
2011	Pacific Gas & Electric Company	Humboldt Bay CTs	California	30
2009	Sierra Pacific Power Company	Clark Mountain 3	Nevada	30
2009	Sierra Pacific Power Company	Clark Mountain 4	Nevada	30
2009	Sierra Pacific Power Company	Tracy 8, 9, 10	Nevada	30
2010	Nevada Power Company	Harry Allen 3	Nevada	30
2010	Nevada Power Company	Harry Allen 4	Nevada	30
2007	Florida Power and Light Company	Fort Myers Unit 3	Florida	30
2011	Pacific Gas & Electric Company	Humboldt Bay CTs	California	30

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-46

Responding Witness: John J. Spanos

Q1-46. Refer to pages III-4 through III-8 of the depreciation study performed by Mr. Spanos for the Company.

a. Please provide a copy of this schedule in electronic spreadsheet format with all formulas intact.

b. Please disaggregate the net salvage percent in column 3 into interim and final salvage percents.

c. Please provide the depreciation rates for production plant with no "dismantlement" salvage component.

A1-46. a. See attached.

b. Please refer to pages III-210 through III-212 of the depreciation study for the development of the net salvage estimates for production plant, including the forecast interim and terminal net salvage.

c. This analysis was not performed for the depreciation study.

The attachment is being provided in a separate file in Excel format.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-47

Responding Witness: Lonnie E. Bellar / Counsel

Q1-47. Referring to the proposed Curtailable Service Riders CSR10 and CSR30:

a. Please provide in native format all workpapers, studies, analyses, and documents (all Excel worksheets with working formulas and intact links) supporting and/or underlying the development of the proposed riders.

b. Provide all studies and/or analyses that KU conducted concerning expected customer acceptance of and willingness to receive service under the proposed riders.

c. Identify and provide all documents provided to and correspondence with existing and potential interruptible customers related to the development, implementation, and operation of the proposed CSR riders.

d. Identify and provide all alternative rate credits for the CSR riders that KU considered but rejected, and describe in detail the reasons for rejecting the considered alternative(s).

A1-47. a. See Attachment 1, which describes load management in PJM; and Attachment 2, which details combustion turbine availability and utilization. Pricing of the Bluegrass Combustion turbines can be found in Case No. 2011-00375.

b. KU did not perform the requested analysis.

c. KU did not correspond with existing or potential interruptible customers when developing the proposed CSR riders. See also the response to KPSC 2-72(a).

d. Objection. All decisions regarding which rates, rate design and rate credits to include in the application in this proceeding were made in consultation with legal counsel. Any response to this question necessarily requires the Company to reveal the contents of communications with counsel and the mental impressions of counsel, which information is protected from disclosure by the attorney-client privilege and the work product doctrine. The Commission determined in its July 30, 2010 Order in Case No. 2009-00548 that such information is not discoverable. See pages 6-10 and ordering paragraph 5 of the Commission's Final Order in Case No. 2009-00548 dated July 30, 2010.

Load Management in PJM

Introduction

Load management is a broad term to describe load that responds to PJM emergencies. There are three primary types of load management recognized by PJM:

1. Direct Load Control (DLC)
   a. Programs such as water heater or AC control
2. Firm Service Level (FSL)
   a. Curtailment down to predetermined firm service level
3. Guaranteed Load Drop (GLD)
   a. Curtailment of set amount of load

Demand Resources (DR) is the term PJM uses for load management that participates in the PJM Capacity Market which is called RPM (Reliability Pricing Model). While Demand resources can participate in several PJM markets the bulk of their annual revenues (~95%) are derived from capacity payments in the RPM capacity market. See section below.

Three categories of DR are allowed to be offered in the RPM auctions based on the limitations of curtailment.

Name	# of Activations	Period	Max hours	Hours
Limited	10	Jun-Sep	6	Noon-8pm
Ext Summer	Unlimited	May-Oct	10	10A-10P
Annual DR	Unlimited	All Months	10	10A-10P (sum) 6A-9p (win)

The base RPM auction is conducted annually for a Delivery Year (DY) three years in the future. For example, in the spring of 2012, the auction will be run for the 2015/16 Delivery Year which runs from June 1, 2015 to May 31, 2016. Incremental auctions are conducted during the year leading up to the Delivery Year.

General Requirements

Load management resources must register with PJM via a Curtailment Service Provider (CSP). Financial settlements are between PJM and the CSPs. Settlement between the CSP and the retail customer is a private agreement between them. CSPs must be able to provide customer specific compliance and verification with 45 days of event. Interval metering at the customer site is required for verification. CSP must be able to receive and acknowledge communications with PJM's "ALL CALL" system, which is used to implement "Load Management Event".

DR Revenues in 2011

Following is the revenues received by PJM Demand Resources in 2011.

Capacity	$487,104,180	94.9%
Real-Time Economic	$2,045,338	0.4%
Day-Ahead Economic	$7,658	0.0%
Synchronized Reserves	$9,399,509	1.8%
Emergency Energy	$14,833,294	2.9%
Total	**$513,389,979**	

There was approximately 11,821MW of Demand Resources in 2011, so the average revenue was approximately $43,430/MW-Yr.

RPM Auction Clearing Prices History

The following table shows the RPM auction clearing price for the Base Residual Auction (BRA) for each of the Delivery Years for the PJM "RTO" only. It is worth noting, that there was significant price variances for zones within the PJM market for some years.

Delivery Year	RTO Clearing Price in the initial BRA ($/MW-day)
2007/08	$40.80
2008/09	$111.92
2009/10	$102.04
2010/11	$174.29
2011/12	$110.00
2012/13	$16.46
2013/14	$27.73
2014/15	$125.99

RPM Auction 2014/15 DY

The spring of 2011 auction for the 2014/15 DY was the first RPM auction to include the three types of DR products (Limited, Extended, Annual). However, the clearing prices for the three products ended up being virtually identical. The capacity market clearing price for the 2014/15 auction conducted in spring 2011 was $125.99/MW-day or ~$46,000/MW-Yr. The Limited product cleared slightly lower at $125.47/MW-day. There was 14,118MW of DR that cleared the 2014/15 DY capacity auction.

History of "Load Management Events" in PJM

Loads cleared in the PJM capacity market are required to curtail load when called upon by PJM in a Load Management Event. These events can be PJM wide or in specific zones within PJM. Historically, PJM has called relatively few events as shown in the table below.

Delivery Year	# of Events
2002/03	3
2003/04	0
2004/05	0
2005/06	2
2006/07	2
2007/08	1
2008/09	0
2009/10	1
2010/11	7
20011/12	1

Penalties for Non-Performance

Load reductions during the PJM Load Management Events are mandatory and as such, penalties are assessed for non-performance. PJM manuals contain fairly specific calculations are how performance is measured for each type of DR, but appears to be somewhat in state of flux due to recent FERC orders on the topic. The financial penalty is based on the MW of shortfall during the event and the following equation:

Compliance Penalty = Lesser of [1/# of events OR 50%) X weighted Annual Revenue Rate

Where Weighted Revenue Rate = Resource Capacity Payment X 365 days

For example, in the 2014/15 timeframe where the capacity payment is $126/MW-day, the penalty would be $23,000 per MW shortfall if there are only one or two events during the Delivery Year.

Comparison to CSR10

The CSR10 retail tariff of LGE/KU provides a payment of $5.40/kw-mo for customer on the curtailable tariff. The following tables shows the PJM capacity payments from the previous 8 RPM auction converted to $/kw-mo:

Delivery Year	RTO Clearing Price in the initial BRA ($/MW-day)	CSR10 Comparable ($/kw-mo)
2007/08	$40.80	$1.24
2008/09	$111.92	$3.40
2009/10	$102.04	$3.10
2010/11	$174.29	$5.30
2011/12	$110.00	$3.35
2012/13	$16.46	$0.50
2013/14	$27.73	$0.84
2014/15	$125.99	$3.83

Daryn Barker
Market Compliance
February 28, 2012

COMBUSTION TURBINE
GENERATION SUMMARY
(August 2010 - March 2012)

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
BR 5	12,870	8,853	29	28	96.55	168.49	1,899.47	0.67	0.47	58.29	40.58	6.02
BR 6	65,663	60,986	94	94	100.00	787.52	592.15	2.73	2.56	51.79	48.44	8.38
BR 7	65,726	61,232	93	93	100.00	656.95	838.24	2.74	2.57	62.67	58.69	7.06
BR 8	9,663	6,530	30	29	96.67	134.17	161.06	0.53	0.36	58.35	39.75	4.63
BR 9	12,077	8,448	46	42	91.30	175.65	142.42	0.65	0.46	56.58	39.91	4.18
BR 10	7,248	4,131	35	32	91.43	111.72	162.16	0.39	0.22	53.72	30.87	3.49
BR 11	12,075	8,782	39	36	92.31	164.16	749.22	0.66	0.48	61.64	45.21	4.56
BR CT(s)	**185,322**	**158,962**	**366**	**354**	**96.72**	**2,198.66**	**4,544.72**	**1.32**	**1.14**	**57.07**	**49.30**	**6.21**
CR 11	252	252	36	10	27.78	23.08	2,751.56	0.12	0.12	77.99	77.99	2.31
HF 1	447	231	26	25	96.15	34.72	1,709.35	0.23	0.12	101.74	52.58	1.39
HF 2	408	191	24	24	100.00	37.40	683.01	0.21	0.10	87.99	41.19	1.56
HF 3	370	147	25	25	100.00	34.02	1,820.36	0.19	0.08	83.16	33.04	1.36
PR 11	310	227	66	20	30.30	28.99	2,510.01	0.17	0.12	86.05	63.01	1.45
PR 12	116	(302)	50	15	30.00	16.36	5,184.75	0.03	-	28.64	-	1.09
PR 13	**37,795**	**37,430**	**67**	**57**	**85.07**	**307.01**	**5,982.72**	**1.53**	**1.52**	**77.34**	**77.08**	**5.39**
TC 5	115,733	113,124	148	136	91.89	1,047.52	2,462.80	4.60	4.52	66.72	65.30	7.70
TC 6	134,889	132,097	164	152	92.68	1,117.83	2,495.13	5.37	5.28	72.94	71.73	7.35
TC 7	156,565	154,001	181	173	95.58	1,387.78	252.58	6.23	6.15	67.79	66.86	8.02
TC 8	115,620	113,446	217	135	62.21	1,001.39	1,495.72	4.60	4.53	68.91	67.77	7.42
TC 9	145,626	142,702	170	165	97.06	1,311.55	271.16	5.79	5.70	66.80	65.60	7.95
TC 10	101,813	99,902	209	130	62.20	915.85	291.20	4.05	3.99	67.43	66.27	7.05
TC CT(s)	**770,246**	**755,272**	**1,089**	**891**	**81.82**	**6,781.92**	**7,268.59**	**5.11**	**5.03**	**68.40**	**67.23**	**7.61**
ZN 1	179	11	71	10	14.08	15.86	2,690.15	0.08	-	73.56	4.52	1.59
All CT(s)	**995,445**	**952,422**	**1,820**	**1,431**	**78.63**	**9,478.02**	**35,145.22**	**3.00**	**2.89**	**66.26**	**63.62**	**6.62**

TC,BR 6/7, PR13	126	948	7.4
BR 5, 8-10	33	151	5
Other (except ZN)	20	29	2

Micro *GADS* Gold

Version:	Reporting Period:	User:	Current Date:
1.3.38.462	April 2012	Bud Carter	4/18/2012 12:16

GENERATION SUMMARY
SUMMARY OF ALL CT UNITS
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	161,664	160,439	217	191	88.00	1,493.55	411.72	10.48	10.44	70.32	69.84	8.00
September 2010	62,610	61,710	106	88	83.00	588.49	1,385.07	4.19	4.15	70.15	69.21	7.00
October 2010	4,364	3,383	22	13	59.00	46.35	3,133.32	0.24	0.19	60.63	47.19	4.00
November 2010	7,065	5,987	68	38	56.00	90.21	3,249.66	0.41	0.35	52.00	44.24	2.00
December 2010	121,299	119,678	159	126	79.00	1,220.19	1,577.15	6.74	6.68	58.32	57.74	10.00
January 2011	18,409	16,235	44	38	86.00	170.07	975.47	1.02	0.91	61.15	54.06	4.00
February 2011	13,719	10,278	50	34	68.00	146.68	876.23	0.84	0.64	57.40	43.19	4.00
March 2011	24,101	19,452	71	54	76.00	244.82	1,094.45	1.34	1.09	58.58	47.48	5.00
April 2011	45,225	43,365	88	75	85.00	489.80	1,449.84	3.03	2.92	58.51	56.12	7.00
May 2011	51,460	48,897	95	84	88.00	530.65	1,256.39	3.33	3.18	62.34	59.29	6.00
June 2011	70,290	67,749	112	96	86.00	667.84	130.91	4.71	4.55	67.46	65.10	7.00
July 2011	140,495	137,425	244	187	77.00	1,387.29	822.57	9.10	8.94	66.94	65.55	7.00
August 2011	104,041	101,246	154	140	91.00	1,008.29	2,342.50	6.74	6.59	68.71	66.93	7.00
September 2011	33,451	31,280	61	50	82.00	311.12	2,472.48	2.24	2.10	70.21	65.71	6.00
October 2011	4,030	2,293	14	11	79.00	131.83	4,367.61	0.22	0.13	17.89	10.36	12.00
November 2011	9,999	8,089	86	52	60.00	121.84	5,061.67	0.57	0.47	50.76	41.12	2.00
December 2011	1,301	(622)	49	12	24.00	15.68	1,558.04	0.07	-	52.03	-	1.00
January 2012	11,219	9,036	65	37	57.00	92.18	816.03	0.63	0.52	77.25	63.13	2.00
February 2012	17,142	15,117	30	29	97.00	114.40	1,004.40	1.03	0.93	85.74	77.23	4.00
March 2012	93,561	91,385	85	76	89.00	606.74	1,159.71	5.28	5.23	87.33	87.06	8.00
TOTALS	**995,445**	**952,422**	**1,820**	**1,431**	**78.63**	**9,478.02**	**35,145.22**	**3.00**	**2.89**	**66.26**	**63.62**	**6.62**

Micro GADS Gold

Version:	Reporting Period:	User:	Current Date:
1.3.38.462	April 2012	Bud Carter	4/18/2012 12:16

GENERATION SUMMARY
Brown, BR5
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	2,156	2,017	3	3	100.00	22.37	155.00	2.41	2.32	80.32	77.06	7.00
September 2010	-	(25)	-	-	-	-	720.00	-	-	-	-	-
October 2010	490	397	1	1	100.00	6.14	648.73	0.46	0.37	55.81	45.22	6.00
November 2010	1,349	1,137	3	3	100.00	16.48	17.72	1.31	1.10	57.24	48.25	5.00
December 2010	2,096	1,840	4	4	100.00	36.42	-	1.97	1.73	40.25	35.33	9.00
January 2011	-	(212)	-	-	-	-	3.25	-	-	-	-	-
February 2011	1,230	825	1	1	100.00	15.36	5.72	1.28	0.86	56.00	37.56	15.00
March 2011	182	(322)	1	1	100.00	2.71	221.52	0.17	-	46.96	-	3.00
April 2011	313	165	1	1	100.00	4.18	3.00	0.36	0.20	62.40	33.74	4.00
May 2011	843	526	2	2	100.00	10.43	42.25	0.94	0.60	67.35	43.10	5.00
June 2011	910	707	3	3	100.00	14.73	-	1.05	0.84	51.48	41.02	5.00
July 2011	1,637	1,431	4	4	100.00	19.41	10.92	1.83	1.64	70.28	63.01	5.00
August 2011	1,181	1,003	2	2	100.00	14.75	-	1.32	1.15	66.72	58.12	7.00
September 2011	-	(122)	-	-	-	-	25.97	-	-	-	-	-
October 2011	-	(130)	-	-	-	-	-	-	-	-	-	-
November 2011	97	(66)	1	1	100.00	2.04	3.93	0.09	-	33.25	-	2.00
December 2011	-	(171)	-	-	-	-	-	-	-	-	-	-
January 2012	1	(187)	2	1	50.00	0.07	41.46	-	-	10.91	-	-
February 2012	385	171	1	1	100.00	3.40	-	0.42	0.19	86.44	38.69	3.00
March 2012	-	(131)	-	-	-	-	-	-	-	-	-	-
TOTAL	**12,870**	**8,853**	**29**	**28**	**96.55**	**168.49**	**1,899.47**	**0.67**	**0.47**	**58.29**	**40.58**	**6.02**

GENERATION SUMMARY
Brown, BR6
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	13,427	13,155	13	13	100.00	140.63	5.60	11.72	11.48	62.00	60.74	11.00
September 2010	5,744	5,561	6	6	100.00	56.33	2.80	5.18	5.02	66.21	64.11	9.00
October 2010	-	(134)	-	-	-	-	21.87	-	-	-	-	-
November 2010	927	745	2	2	100.00	8.63	4.17	0.75	0.62	62.82	51.38	4.00
December 2010	9,163	8,832	11	11	100.00	115.12	0.40	7.20	7.07	46.55	45.67	10.00
January 2011	-	(176)	-	-	-	-	8.28	-	-	-	-	-
February 2011	1,656	1,196	2	2	100.00	18.32	-	1.44	1.06	52.86	38.86	9.00
March 2011	1,750	1,051	3	3	100.00	16.54	27.66	1.38	0.84	61.87	37.82	6.00
April 2011	886	726	2	2	100.00	10.69	6.13	0.80	0.65	53.82	44.10	5.00
May 2011	3,900	3,727	9	9	100.00	41.11	226.24	3.40	3.25	61.60	58.87	5.00
June 2011	4,435	4,226	6	6	100.00	47.15	6.53	4.00	3.81	61.08	58.20	8.00
July 2011	8,932	8,676	15	15	100.00	97.87	15.08	7.80	7.57	59.26	57.56	7.00
August 2011	5,073	4,884	7	7	100.00	53.90	5.85	4.43	4.26	61.12	58.84	8.00
September 2011	1,624	1,474	2	2	100.00	17.45	-	1.46	1.33	60.43	54.85	9.00
October 2011	3,200	2,998	4	4	100.00	122.64	8.23	2.52	2.40	15.26	14.55	31.00
November 2011	45	(138)	6	6	100.00	2.65	23.67	0.04	-	9.93	-	-
December 2011	-	(163)	-	-	-	-	32.30	-	-	-	-	-
January 2012	648	432	1	1	100.00	4.86	1.57	0.51	0.34	77.52	51.98	5.00
February 2012	293	122	1	1	100.00	3.15	154.92	0.24	0.10	54.08	22.65	3.00
March 2012	3,960	3,792	4	4	100.00	30.48	40.85	3.09	2.98	75.54	72.75	8.00
TOTAL	**65,663**	**60,986**	**94**	**94**	**100.00**	**787.52**	**592.15**	**2.73**	**2.56**	**51.79**	**48.44**	**8.38**

GENERATION SUMMARY
Brown, BR7
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	10,864	10,648	12	12	100.00	114.05	9.02	9.48	9.29	61.85	60.63	10.00
September 2010	4,117	3,947	6	6	100.00	42.65	-	3.71	3.56	62.68	60.09	7.00
October 2010	113	(20)	3	3	100.00	2.02	225.75	0.09	-	32.71	-	1.00
November 2010	470	323	1	1	100.00	4.73	-	0.38	0.27	58.11	40.65	5.00
December 2010	7,373	7,061	11	11	100.00	104.54	95.78	5.80	5.65	41.24	40.20	10.00
January 2011	2,322	2,099	2	2	100.00	21.08	37.67	1.83	1.68	64.42	59.27	11.00
February 2011	468	28	1	1	100.00	4.65	8.73	0.41	0.02	58.86	3.58	5.00
March 2011	3,078	2,401	2	2	100.00	24.28	22.27	2.42	1.92	74.14	58.86	12.00
April 2011	1,117	926	3	3	100.00	11.41	6.92	1.01	0.84	63.57	52.70	4.00
May 2011	3,851	3,685	8	8	100.00	37.93	8.22	3.36	3.22	65.93	63.09	5.00
June 2011	4,769	4,574	6	6	100.00	45.88	38.20	4.30	4.13	67.50	64.74	8.00
July 2011	12,632	12,369	16	16	100.00	120.80	46.50	11.02	10.80	67.90	66.49	8.00
August 2011	6,161	5,964	10	10	100.00	54.42	7.38	5.38	5.21	73.51	71.16	5.00
September 2011	1,463	1,300	2	2	100.00	14.13	8.67	1.32	1.17	67.23	59.74	7.00
October 2011	567	429	1	1	100.00	5.67	91.00	0.45	0.34	58.48	45.04	6.00
November 2011	347	208	2	2	100.00	4.22	230.05	0.28	0.17	48.09	29.34	2.00
December 2011	73	(91)	1	1	100.00	0.98	-	0.06	-	43.31	-	1.00
January 2012	2,083	1,860	3	3	100.00	16.93	-	1.63	1.46	71.53	64.25	6.00
February 2012	-	(182)	-	-	-	-	2.08	-	-	-	-	-
March 2012	3,858	3,703	3	3	100.00	26.58	-	3.01	2.91	84.39	81.47	9.00
TOTAL	**65,726**	**61,232**	**93**	**93**	**100.00**	**656.95**	**838.24**	**2.74**	**2.57**	**62.67**	**58.69**	**7.06**

GENERATION SUMMARY
Brown, BR8
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	1,108	979	3	3	100.00	17.43	0.72	1.39	1.24	59.41	52.99	6.00
September 2010	342	225	3	3	100.00	6.75	1.10	0.44	0.29	47.35	31.45	2.00
October 2010	-	(107)	-	-	-	-	-	-	-	-	-	-
November 2010	211	74	1	1	100.00	3.28	1.32	0.21	0.07	45.62	16.11	3.00
December 2010	261	121	3	2	67.00	5.01	6.52	0.25	0.12	36.95	17.25	3.00
January 2011	68	-	1	1	100.00	1.15	55.80	0.06	-	41.94	-	1.00
February 2011	1,798	1,407	4	4	100.00	19.82	80.63	1.90	1.50	64.34	50.71	5.00
March 2011	1,896	1,395	4	4	100.00	24.90	-	1.81	1.34	54.00	40.02	6.00
April 2011	90	(10)	1	1	100.00	1.78	-	0.12	-	47.25	-	2.00
May 2011	-	(121)	-	-	-	-	-	-	-	-	-	-
June 2011	504	355	1	1	100.00	6.12	-	0.65	0.47	76.97	54.72	6.00
July 2011	920	761	3	3	100.00	15.90	-	1.16	0.96	54.08	45.15	5.00
August 2011	1,090	926	2	2	100.00	16.70	-	1.37	1.17	61.00	52.31	8.00
September 2011	-	(107)	-	-	-	-	1.50	-	-	-	-	-
October 2011	-	(108)	1	1	100.00	0.03	3.30	-	-	2.36	-	-
November 2011	106	(27)	1	1	100.00	2.15	-	0.10	-	34.97	-	2.00
December 2011	-	(131)	-	-	-	-	-	-	-	-	-	-
January 2012	503	363	1	1	100.00	4.92	-	0.52	0.38	79.25	57.64	5.00
February 2012	-	(109)	-	-	-	-	10.17	-	-	-	-	-
March 2012	766	644	1	1	100.00	8.23	-	0.80	0.68	72.15	61.13	8.00
TOTAL	**9,663**	**6,530**	**30**	**29**	**96.67**	**134.17**	**161.06**	**0.53**	**0.36**	**58.35**	**39.75**	**4.63**

GENERATION SUMMARY
Brown, BR9
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	1,015	889	4	4	100.00	17.45	2.70	1.27	1.13	54.36	48.06	4.00
September 2010	1,042	923	5	5	100.00	19.11	2.42	1.35	1.21	50.96	45.57	4.00
October 2010	-	(107)	-	-	-	-	-	-	-	-	-	-
November 2010	510	369	2	2	100.00	7.45	1.33	0.50	0.37	48.55	35.38	4.00
December 2010	619	471	5	4	80.00	11.10	5.45	0.59	0.45	39.55	30.31	3.00
January 2011	82	(65)	1	1	100.00	1.47	-	0.08	-	39.56	-	1.00
February 2011	1,317	1,023	2	2	100.00	14.97	76.60	1.39	1.09	62.39	48.81	7.00
March 2011	1,622	1,138	3	3	100.00	20.10	1.83	1.55	1.09	57.23	40.44	7.00
April 2011	-	(94)	-	-	-	-	-	-	-	-	-	-
May 2011	429	207	2	2	100.00	7.88	39.30	0.54	0.26	50.88	24.78	4.00
June 2011	683	515	3	3	100.00	8.46	0.02	0.89	0.67	75.45	57.43	3.00
July 2011	1,939	1,729	5	5	100.00	30.65	-	2.44	2.19	59.12	53.22	6.00
August 2011	885	729	2	2	100.00	13.18	-	1.11	0.92	62.75	52.18	7.00
September 2011	150	(242)	2	2	100.00	2.83	-	0.19	-	49.54	-	1.00
October 2011	52	(95)	1	1	100.00	1.08	-	0.05	-	34.15	-	1.00
November 2011	140	7	3	2	67.00	1.98	0.45	0.14	0.01	50.15	2.53	1.00
December 2011	-	(134)	-	-	-	-	-	-	-	-	-	-
January 2012	586	438	3	2	67.00	7.21	2.42	0.57	0.43	58.47	44.02	4.00
February 2012	-	(109)	1	-	-	-	9.90	-	-	-	-	-
March 2012	1,006	856	2	2	100.00	10.73	-	0.97	0.83	67.45	57.81	5.00
TOTAL	**12,077**	**8,448**	**46**	**42**	**91.30**	**175.65**	**142.42**	**0.65**	**0.46**	**56.58**	**39.91**	**4.18**

GENERATION SUMMARY
Brown, BR10
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	935	808	3	3	100.00	16.71	0.42	1.17	1.02	52.29	45.62	6.00
September 2010	427	307	2	2	100.00	8.06	1.37	0.55	0.40	49.51	35.93	4.00
October 2010	53	(58)	1	1	100.00	1.08	-	0.05	-	34.80	-	1.00
November 2010	203	62	1	1	100.00	2.97	39.65	0.20	0.06	48.48	14.91	3.00
December 2010	1,350	1,181	9	8	89.00	24.77	44.85	1.29	1.13	38.65	34.06	3.00
January 2011	540	369	2	2	100.00	5.58	-	0.51	0.35	68.63	47.24	3.00
February 2011	-	(264)	1	-	-	-	10.32	-	-	-	-	-
March 2011	566	158	1	1	100.00	4.87	4.13	0.54	0.15	82.43	23.17	5.00
April 2011	-	(94)	1	1	100.00	0.05	-	-	-	1.87	-	-
May 2011	475	256	2	2	100.00	9.10	-	0.60	0.32	48.78	26.54	5.00
June 2011	508	351	2	2	100.00	6.65	-	0.66	0.46	71.39	49.79	3.00
July 2011	693	549	2	2	100.00	11.73	-	0.87	0.70	55.21	44.15	6.00
August 2011	915	769	2	2	100.00	13.92	-	1.15	0.98	61.43	52.12	7.00
September 2011	-	(112)	-	-	-	-	-	-	-	-	-	-
October 2011	-	(104)	1	1	100.00	0.03	16.00	-	-	2.36	-	-
November 2011	124	(6)	3	2	67.00	2.02	17.83	0.12	-	43.54	-	1.00
December 2011	-	(131)	-	-	-	-	-	-	-	-	-	-
January 2012	423	283	1	1	100.00	3.45	-	0.41	0.28	88.21	59.44	3.00
February 2012	36	(90)	1	1	100.00	0.73	1.17	0.04	-	35.48	-	1.00
March 2012	-	(103)	-	-	-	-	26.42	-	-	-	-	-
TOTAL	**7,248**	**4,131**	**35**	**32**	**91.43**	**111.72**	**162.16**	**0.39**	**0.22**	**53.72**	**30.87**	**3.49**

GENERATION SUMMARY
Brown, BR11
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	1,694	1,554	6	6	100.00	26.22	9.43	2.13	1.97	60.38	55.91	4.00
September 2010	1,418	1,287	6	5	83.00	26.88	8.50	1.84	1.69	49.30	45.17	5.00
October 2010	2,511	2,235	3	3	100.00	22.00	69.95	2.39	2.15	80.95	72.56	7.00
November 2010	-	(69)	-	-	-	-	559.10	-	-	-	-	-
December 2010	1,503	1,331	3	3	100.00	18.32	43.40	1.43	1.28	58.19	51.89	6.00
January 2011	-	(156)	-	-	-	-	3.48	-	-	-	-	-
February 2011	49	(217)	1	1	100.00	0.76	3.37	0.05	-	45.73	-	1.00
March 2011	321	(73)	3	3	100.00	5.83	3.25	0.31	-	39.05	-	2.00
April 2011	1	(93)	1	1	100.00	0.05	-	-	-	18.69	-	-
May 2011	702	427	3	3	100.00	9.17	2.98	0.88	0.54	71.55	43.93	3.00
June 2011	-	(111)	-	-	-	-	0.12	-	-	-	-	-
July 2011	1,240	1,068	4	4	100.00	20.88	-	1.56	1.35	55.50	48.25	5.00
August 2011	1,049	894	3	3	100.00	14.96	7.07	1.32	1.13	65.53	56.38	5.00
September 2011	-	(100)	-	-	-	-	-	-	-	-	-	-
October 2011	-	(113)	1	1	100.00	0.05	-	-	-	1.42	-	-
November 2011	34	(89)	2	1	50.00	0.68	0.55	0.03	-	35.46	-	1.00
December 2011	-	(136)	-	-	-	-	-	-	-	-	-	-
January 2012	764	606	2	1	50.00	9.90	6.73	0.80	0.64	59.82	47.82	10.00
February 2012	-	(122)	-	-	-	-	4.87	-	-	-	-	-
March 2012	789	659	1	1	100.00	8.46	26.42	0.82	0.69	72.30	60.86	8.00
TOTAL	**12,075**	**8,782**	**39**	**36**	**92.31**	**164.16**	**749.22**	**0.66**	**0.48**	**61.64**	**45.21**	**4.56**

GENERATION SUMMARY
Cane Run, CR11
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	-	-	4	-	-	-	15.35	-	-	-	-	-
September 2010	14	14	11	1	9.00	1.13	-	0.14	0.14	88.50	88.50	1.00
October 2010	-	-	-	-	-	-	-	-	-	-	-	-
November 2010	-	-	4	-	-	-	-	-	-	-	-	-
December 2010	40	40	3	3	100.00	4.32	2.72	0.38	0.38	66.14	66.14	1.00
January 2011	-	-	-	-	-	-	-	-	-	-	-	-
February 2011	-	-	-	-	-	-	-	-	-	-	-	-
March 2011	-	-	-	-	-	-	-	-	-	-	-	-
April 2011	-	-	-	-	-	-	-	-	-	-	-	-
May 2011	-	-	1	1	100.00	0.35	7.55	-	-	-	-	-
June 2011	-	-	-	-	-	-	-	-	-	-	-	-
July 2011	94	94	4	3	75.00	8.63	1.27	0.90	0.90	77.80	77.80	3.00
August 2011	104	104	2	2	100.00	8.65	704.37	1.00	1.00	85.88	85.88	4.00
September 2011	-	-	-	-	-	-	720.00	-	-	-	-	-
October 2011	-	-	-	-	-	-	744.00	-	-	-	-	-
November 2011	-	-	7	-	-	-	511.33	-	-	-	-	-
December 2011	-	-	-	-	-	-	22.35	-	-	-	-	-
January 2012	-	-	-	-	-	-	22.62	-	-	-	-	-
February 2012	-	-	-	-	-	-	-	-	-	-	-	-
March 2012	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**252**	**252**	**36**	**10**	**27.78**	**23.08**	**2,751.56**	**0.12**	**0.12**	**77.99**	**77.99**	**2.31**

GENERATION SUMMARY
Haefling, HA1
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	14	2	1	1	100.00	1.17	18.88	0.16	0.02	99.72	14.25	1.00
September 2010	24	17	1	1	100.00	1.95	96.80	0.28	0.20	102.56	72.65	2.00
October 2010	-	(7)	-	-	-	-	324.00	-	-	-	-	-
November 2010	16	8	1	1	100.00	1.07	-	0.16	0.08	106.81	53.40	1.00
December 2010	80	59	1	1	100.00	4.50	5.10	0.77	0.57	126.98	93.65	5.00
January 2011	-	(10)	-	-	-	-	-	-	-	-	-	-
February 2011	13	(5)	1	1	100.00	0.82	-	0.14	-	113.24	-	1.00
March 2011	8	(2)	1	1	100.00	0.53	4.42	0.08	-	107.82	-	1.00
April 2011	7	(14)	2	2	100.00	1.00	-	0.08	-	58.33	-	1.00
May 2011	-	(10)	-	-	-	-	-	-	-	-	-	-
June 2011	8	-	1	1	100.00	0.65	-	0.09	-	102.56	-	1.00
July 2011	80	71	2	2	100.00	6.43	45.25	0.90	0.80	103.68	92.02	3.00
August 2011	111	99	2	2	100.00	8.62	3.15	1.24	1.11	107.31	95.71	4.00
September 2011	45	36	1	1	100.00	3.55	-	0.52	0.42	105.63	84.51	4.00
October 2011	-	(2)	-	-	-	-	529.08	-	-	-	-	-
November 2011	14	(17)	7	7	100.00	1.92	511.33	0.14	-	52.08	-	-
December 2011	2	(3)	2	1	50.00	0.41	49.77	0.02	-	34.84	-	-
January 2012	3	(3)	1	1	100.00	0.55	121.57	0.03	-	38.96	-	1.00
February 2012	12	6	1	1	100.00	0.92	-	0.12	0.06	93.17	46.58	1.00
March 2012	10	6	1	1	100.00	0.63	-	0.10	0.06	113.38	68.03	1.00
TOTAL	**447**	**231**	**26**	**25**	**96.15**	**34.72**	**1,709.35**	**0.23**	**0.12**	**101.74**	**52.58**	**1.39**

GENERATION SUMMARY
Haefling, HA2
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	36	22	1	1	100.00	3.45	-	0.40	0.25	86.96	53.14	3.00
September 2010	22	16	1	1	100.00	2.06	8.32	0.25	0.19	89.00	64.72	2.00
October 2010	-	(6)	-	-	-	-	-	-	-	-	-	-
November 2010	20	12	1	1	100.00	1.67	-	0.20	0.12	85.54	51.33	2.00
December 2010	-	(21)	-	-	-	-	107.10	-	-	-	-	-
January 2011	-	(10)	-	-	-	-	-	-	-	-	-	-
February 2011	10	(7)	2	2	100.00	0.70	0.08	0.11	-	102.04	-	-
March 2011	8	(3)	1	1	100.00	0.61	4.42	0.08	-	93.68	-	1.00
April 2011	7	(15)	2	2	100.00	1.22	1.68	0.08	-	47.81	-	1.00
May 2011	-	(10)	-	-	-	-	-	-	-	-	-	-
June 2011	9	1	1	1	100.00	0.72	-	0.10	0.01	104.17	11.57	1.00
July 2011	111	100	3	3	100.00	10.39	21.03	1.24	1.12	89.03	80.21	3.00
August 2011	98	89	2	2	100.00	8.67	3.15	1.10	1.00	94.19	85.54	4.00
September 2011	36	28	2	2	100.00	3.45	0.17	0.42	0.32	86.96	67.63	2.00
October 2011	-	-	-	-	-	-	-	-	-	-	-	-
November 2011	26	(6)	3	3	100.00	2.32	510.93	0.26	-	80.05	-	1.00
December 2011	5	-	1	1	100.00	0.45	-	0.05	-	79.37	-	-
January 2012	8	(3)	2	2	100.00	0.54	26.13	0.08	-	105.82	-	-
February 2012	7	2	1	1	100.00	0.60	-	0.07	0.02	83.33	23.81	1.00
March 2012	5	2	1	1	100.00	0.55	-	0.05	0.02	64.94	25.97	1.00
TOTAL	**408**	**191**	**24**	**24**	**100.00**	**37.40**	**683.01**	**0.21**	**0.10**	**87.99**	**41.19**	**1.56**

GENERATION SUMMARY
Haefling, HA3
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	31	18	1	1	100.00	3.10	-	0.35	0.20	83.33	48.39	3.00
September 2010	21	15	1	1	100.00	2.03	8.32	0.24	0.17	86.21	61.58	2.00
October 2010	-	(7)	-	-	-	-	-	-	-	-	-	-
November 2010	-	(8)	-	-	-	-	2.23	-	-	-	-	-
December 2010	131	110	2	2	100.00	8.45	5.10	1.26	1.06	110.74	92.98	4.00
January 2011	-	(12)	-	-	-	-	-	-	-	-	-	-
February 2011	7	(9)	1	1	100.00	0.52	-	0.07	-	96.15	-	1.00
March 2011	8	(2)	1	1	100.00	0.56	4.42	0.08	-	102.04	-	1.00
April 2011	7	(14)	4	4	100.00	2.28	-	0.08	-	25.58	-	1.00
May 2011	-	(10)	-	-	-	-	-	-	-	-	-	-
June 2011	7	(1)	1	1	100.00	0.70	-	0.08	-	83.33	-	1.00
July 2011	59	53	1	1	100.00	3.96	344.02	0.66	0.59	124.16	111.53	4.00
August 2011	-	(7)	-	-	-	-	88.82	-	-	-	-	-
September 2011	20	15	1	1	100.00	3.62	90.00	0.23	0.17	46.04	34.53	4.00
October 2011	-	(3)	-	-	-	-	744.00	-	-	-	-	-
November 2011	44	10	7	7	100.00	6.18	507.07	0.44	0.10	50.86	11.56	1.00
December 2011	6	(7)	1	1	100.00	0.47	-	0.06	-	91.19	-	-
January 2012	8	(4)	2	2	100.00	0.64	26.38	0.08	-	89.29	-	-
February 2012	9	3	1	1	100.00	0.68	-	0.09	0.03	94.54	31.51	1.00
March 2012	12	7	1	1	100.00	0.83	-	0.12	0.07	103.27	60.24	1.00
TOTAL	**370**	**147**	**25**	**25**	**100.00**	**34.02**	**1,820.36**	**0.19**	**0.08**	**83.16**	**33.04**	**1.36**

GENERATION SUMMARY
Paddy's Run, PR11
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	41	37	1	1	100.00	3.58	13.37	0.46	0.41	95.44	86.13	4.00
September 2010	-	-	4	-	-	-	19.17	-	-	-	-	-
October 2010	-	-	-	-	-	-	8.58	-	-	-	-	-
November 2010	19	13	1	1	100.00	1.12	-	0.20	0.14	130.49	89.29	1.00
December 2010	102	96	3	2	67.00	8.51	10.92	1.05	0.99	92.20	86.78	4.00
January 2011	-	(8)	-	-	-	-	5.00	-	-	-	-	-
February 2011	-	(6)	-	-	-	-	-	-	-	-	-	-
March 2011	-	(5)	-	-	-	-	-	-	-	-	-	-
April 2011	-	(4)	-	-	-	-	-	-	-	-	-	-
May 2011	-	(4)	-	-	-	-	-	-	-	-	-	-
June 2011	6	2	4	2	50.00	0.25	-	0.07	0.02	200.00	66.67	-
July 2011	47	42	6	2	33.00	3.60	116.63	0.53	0.47	108.80	97.22	2.00
August 2011	80	74	2	2	100.00	7.95	-	0.90	0.83	83.86	77.57	4.00
September 2011	13	9	3	1	33.00	1.22	0.55	0.15	0.10	88.80	61.48	1.00
October 2011	-	(3)	-	-	-	-	-	-	-	-	-	-
November 2011	-	(2)	-	-	-	-	657.08	-	-	-	-	-
December 2011	-	-	30	1	3.00	0.43	743.57	-	-	-	-	-
January 2012	2	(2)	12	8	67.00	2.33	371.17	0.02	-	6.60	-	-
February 2012	-	(7)	-	-	-	-	284.05	-	-	-	-	-
March 2012	-	(5)	-	-	-	-	279.92	-	-	-	-	-
TOTAL	**310**	**227**	**66**	**20**	**30.30**	**28.99**	**2,510.01**	**0.17**	**0.12**	**86.05**	**63.01**	**1.45**

GENERATION SUMMARY
Paddy's Run, PR12
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	90	76	7	3	43.00	4.18	16.45	0.53	0.44	93.61	79.05	1.00
September 2010	-	-	1	-	-	-	11.48	-	-	-	-	-
October 2010	-	-	-	-	-	-	384.00	-	-	-	-	-
November 2010	4	-	21	5	24.00	2.50	677.50	0.02	-	5.71	-	1.00
December 2010	8	-	8	-	-	2.95	45.07	0.04	-	9.69	-	3.00
January 2011	-	(40)	-	-	-	-	1.00	-	-	-	-	-
February 2011	-	(48)	-	-	-	-	-	-	-	-	-	-
March 2011	-	(17)	-	-	-	-	28.50	-	-	-	-	-
April 2011	-	(12)	-	-	-	-	4.47	-	-	-	-	-
May 2011	-	(11)	-	-	-	-	25.10	-	-	-	-	-
June 2011	-	(15)	-	-	-	-	-	-	-	-	-	-
July 2011	5	(13)	7	4	57.00	2.68	56.58	0.03	-	8.11	-	1.00
August 2011	8	(20)	3	1	33.00	3.76	708.92	0.05	-	9.25	-	4.00
September 2011	-	(25)	-	-	-	-	720.00	-	-	-	-	-
October 2011	-	(30)	-	-	-	-	744.00	-	-	-	-	-
November 2011	-	(16)	-	-	-	-	720.00	-	-	-	-	-
December 2011	-	(25)	2	1	50.00	0.14	477.71	-	-	-	-	-
January 2012	1	(35)	1	1	100.00	0.15	-	-	-	23.81	-	-
February 2012	-	(47)	-	-	-	-	284.05	-	-	-	-	-
March 2012	-	(24)	-	-	-	-	279.92	-	-	-	-	-
TOTAL	**116**	**(302)**	**50**	**15**	**30.00**	**16.36**	**5,184.75**	**0.03**	**-**	**28.64**	**-**	**1.09**

GENERATION SUMMARY
Paddy's Run, PR13
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	1,317	1,305	3	3	100.00	10.23	74.75	1.11	1.11	80.97	80.74	3.00
September 2010	4,449	4,434	6	4	67.00	30.03	3.02	3.89	3.90	93.18	93.45	8.00
October 2010	-	-	-	-	-	-	554.00	-	-	-	-	-
November 2010	-	-	-	-	-	-	720.00	-	-	-	-	-
December 2010	-	-	-	-	-	-	744.00	-	-	-	-	-
January 2011	-	(9)	-	-	-	-	744.00	-	-	-	-	-
February 2011	-	(7)	-	-	-	-	672.00	-	-	-	-	-
March 2011	-	(6)	-	-	-	-	744.00	-	-	-	-	-
April 2011	776	767	9	6	67.00	7.80	712.20	0.68	0.67	62.57	62.24	1.00
May 2011	3,276	3,261	8	6	75.00	25.03	131.35	2.77	2.77	82.32	82.46	4.00
June 2011	6,794	6,772	10	9	90.00	49.58	18.62	5.93	5.95	86.18	86.45	6.00
July 2011	10,166	10,139	13	12	92.00	95.57	11.35	8.59	8.63	66.90	67.15	8.00
August 2011	6,024	5,995	5	5	100.00	45.90	-	5.09	5.10	82.54	82.66	9.00
September 2011	4,544	4,524	12	11	92.00	39.82	10.07	3.97	3.98	71.77	71.91	4.00
October 2011	-	(9)	-	-	-	-	-	-	-	-	-	-
November 2011	-	(6)	-	-	-	-	342.50	-	-	-	-	-
December 2011	-	(10)	-	-	-	-	-	-	-	-	-	-
January 2012	-	(9)	-	-	-	-	39.87	-	-	-	-	-
February 2012	449	363	1	1	100.00	3.05	181.07	0.37	0.30	83.64	68.01	3.00
March 2012	-	(74)	-	-	-	-	279.92	-	-	-	-	-
TOTAL	**37,795**	**37,430**	**67**	**57**	**85.07**	**307.01**	**5,982.72**	**1.53**	**1.52**	**77.34**	**77.08**	**5.39**

GENERATION SUMMARY
Trimble County, TC5
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	19,083	19,083	20	19	95.00	167.22	55.23	16.03	16.03	71.32	71.32	9.00
September 2010	9,101	9,101	11	11	100.00	78.82	17.13	7.90	7.90	72.17	72.16	7.00
October 2010	-	-	-	-	-	-	34.50	-	-	-	-	-
November 2010	64	64	3	3	100.00	1.09	458.98	0.05	0.05	32.62	32.52	-
December 2010	18,977	18,977	14	12	86.00	164.70	17.58	14.17	14.17	64.01	64.01	14.00
January 2011	1,382	1,211	4	4	100.00	11.07	36.45	1.03	0.90	69.36	60.77	3.00
February 2011	1,150	973	2	2	100.00	11.42	-	0.95	0.80	55.94	47.34	6.00
March 2011	1,819	1,704	3	3	100.00	15.78	8.35	1.36	1.27	64.04	60.01	5.00
April 2011	-	-	-	-	-	-	694.80	-	-	-	-	-
May 2011	-	-	-	-	-	-	744.00	-	-	-	-	-
June 2011	9,583	9,314	15	13	87.00	94.83	37.40	8.32	8.09	63.16	61.39	7.00
July 2011	21,826	21,534	25	19	76.00	205.59	11.13	18.34	18.09	66.35	65.46	11.00
August 2011	15,956	15,658	23	23	100.00	150.34	52.83	13.40	13.15	66.33	65.09	7.00
September 2011	6,079	5,844	8	8	100.00	57.77	-	5.28	5.07	65.77	63.23	7.00
October 2011	-	(158)	-	-	-	-	-	-	-	-	-	-
November 2011	3,151	2,885	7	7	100.00	35.92	32.78	2.43	2.23	48.73	44.62	5.00
December 2011	689	390	2	2	100.00	6.95	58.03	0.51	0.30	55.08	31.88	3.00
January 2012	636	464	3	2	67.00	4.08	31.43	0.47	0.35	86.60	64.64	2.00
February 2012	2,131	2,027	3	3	100.00	13.82	9.75	1.70	1.65	85.66	83.34	5.00
March 2012	4,106	4,053	5	5	100.00	28.12	162.43	3.07	3.10	81.12	81.90	6.00
TOTAL	**115,733**	**113,124**	**148**	**136**	**91.89**	**1,047.52**	**2,462.80**	**4.60**	**4.52**	**66.72**	**65.30**	**7.70**

GENERATION SUMMARY
Trimble County, TC6
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	24,824	24,824	30	29	97.00	212.60	0.93	20.85	20.85	72.98	72.98	7.00
September 2010	2,489	2,489	3	3	100.00	20.91	479.47	2.16	2.16	74.40	74.39	7.00
October 2010	-	-	-	-	-	-	744.00	-	-	-	-	-
November 2010	-	-	-	-	-	-	720.00	-	-	-	-	-
December 2010	7,344	7,344	12	9	75.00	54.02	286.60	5.48	5.48	75.53	75.53	6.00
January 2011	1,317	1,154	7	4	57.00	10.43	25.30	0.98	0.86	70.15	61.47	3.00
February 2011	750	635	5	5	100.00	8.50	16.58	0.62	0.53	49.02	41.51	2.00
March 2011	3,356	3,145	5	5	100.00	31.03	2.62	2.51	2.35	60.09	56.30	6.00
April 2011	8,678	8,429	12	10	83.00	88.28	1.65	7.53	7.32	61.44	59.68	9.00
May 2011	7,201	6,917	10	10	100.00	70.45	6.20	6.05	5.81	63.88	61.36	7.00
June 2011	7,482	7,272	9	9	100.00	68.13	12.30	6.49	6.31	68.64	66.71	8.00
July 2011	22,429	22,128	26	24	92.00	205.08	13.42	18.84	18.59	68.35	67.44	9.00
August 2011	13,667	13,411	16	16	100.00	120.95	7.78	11.48	11.27	70.62	69.30	8.00
September 2011	3,294	3,167	3	3	100.00	27.43	-	2.86	2.75	75.05	72.16	9.00
October 2011	-	(158)	-	-	-	-	-	-	-	-	-	-
November 2011	352	322	1	1	100.00	4.15	33.85	0.27	0.25	47.12	43.14	4.00
December 2011	-	-	-	-	-	-	77.33	-	-	-	-	-
January 2012	530	387	1	1	100.00	3.10	40.55	0.40	0.30	94.98	70.90	3.00
February 2012	4,049	3,852	6	6	100.00	25.47	12.18	3.23	3.14	88.32	85.93	4.00
March 2012	27,127	26,779	18	17	94.00	167.30	14.37	20.26	20.45	90.08	90.95	10.00
TOTAL	**134,889**	**132,097**	**164**	**152**	**92.68**	**1,117.83**	**2,495.13**	**5.37**	**5.28**	**72.94**	**71.73**	**7.35**

GENERATION SUMMARY
Trimble County, TC7
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	22,112	22,112	27	25	93.00	189.61	12.57	18.58	18.58	72.89	72.89	8.00
September 2010	9,793	9,793	13	13	100.00	87.93	-	8.50	8.50	69.61	69.61	7.00
October 2010	663	663	4	4	100.00	8.33	31.43	0.50	0.49	44.22	44.20	2.00
November 2010	821	821	4	3	75.00	8.90	40.95	0.63	0.63	51.25	51.24	3.00
December 2010	23,563	23,563	14	13	93.00	205.28	8.23	17.59	17.59	63.77	63.77	16.00
January 2011	2,819	2,695	3	3	100.00	25.27	-	2.10	2.01	61.98	59.25	8.00
February 2011	681	602	2	2	100.00	7.32	2.20	0.56	0.50	51.68	45.66	4.00
March 2011	2,921	2,765	10	9	90.00	28.98	3.43	2.18	2.06	56.00	53.00	3.00
April 2011	16,267	16,018	18	18	100.00	178.92	-	14.12	13.90	56.82	55.95	10.00
May 2011	11,715	11,463	16	16	100.00	126.72	-	9.84	9.63	57.78	56.54	8.00
June 2011	9,613	9,393	10	10	100.00	91.05	8.75	8.34	8.15	65.99	64.48	9.00
July 2011	13,281	13,025	15	14	93.00	118.92	19.82	11.16	10.94	69.80	68.46	8.00
August 2011	13,543	13,285	17	16	94.00	121.20	-	11.38	11.16	69.84	68.51	8.00
September 2011	3,549	3,416	3	3	100.00	28.27	-	3.08	2.97	78.46	75.52	9.00
October 2011	-	(80)	-	-	-	-	-	-	-	-	-	-
November 2011	362	338	1	1	100.00	3.78	21.97	0.28	0.26	53.20	49.71	4.00
December 2011	213	5	1	1	100.00	2.20	-	0.16	-	53.79	1.39	2.00
January 2012	508	407	2	1	50.00	3.07	48.33	0.38	0.31	91.93	75.32	3.00
February 2012	2,440	2,253	5	5	100.00	16.73	32.57	1.95	1.84	81.03	76.50	3.00
March 2012	21,701	21,465	16	16	100.00	135.30	22.33	16.20	16.39	89.11	90.14	8.00
TOTAL	**156,565**	**154,001**	**181**	**173**	**95.58**	**1,387.78**	**252.58**	**6.23**	**6.15**	**67.79**	**66.86**	**8.02**

GENERATION SUMMARY
Trimble County, TC8
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	18,828	18,828	24	18	75.00	157.22	6.20	15.82	15.82	74.85	74.85	9.00
September 2010	6,334	6,334	6	6	100.00	53.13	5.17	5.50	5.50	74.51	74.51	9.00
October 2010	-	-	-	-	-	-	19.37	-	-	-	-	-
November 2010	626	626	8	4	50.00	7.80	2.25	0.48	0.48	44.59	44.58	2.00
December 2010	18,719	18,719	22	15	68.00	168.18	31.20	13.98	13.98	61.84	61.83	11.00
January 2011	3,773	3,607	10	10	100.00	38.17	9.27	2.82	2.69	54.92	52.50	4.00
February 2011	1,448	1,279	11	2	18.00	12.75	-	1.20	1.06	63.09	55.74	6.00
March 2011	2,838	2,686	19	9	47.00	29.97	7.50	2.12	2.01	52.61	49.79	3.00
April 2011	6,031	5,939	12	8	67.00	62.23	-	5.24	5.16	60.57	59.65	8.00
May 2011	5,293	5,179	11	6	55.00	52.56	2.27	4.45	4.35	62.94	61.59	9.00
June 2011	7,643	7,468	14	9	64.00	68.26	2.67	6.63	6.48	69.98	68.38	8.00
July 2011	11,640	11,416	17	13	76.00	103.97	0.75	9.78	9.59	69.97	68.62	8.00
August 2011	10,871	10,664	15	11	73.00	93.35	-	9.13	8.96	72.78	71.39	8.00
September 2011	3,751	3,610	7	4	57.00	32.73	175.55	3.26	3.13	71.63	68.94	8.00
October 2011	-	(80)	-	-	-	-	744.00	-	-	-	-	-
November 2011	2,944	2,751	5	4	80.00	25.20	442.77	2.27	2.12	64.90	60.64	6.00
December 2011	63	2	3	1	33.00	0.78	-	0.05	-	44.87	1.17	1.00
January 2012	920	737	13	3	23.00	7.44	20.58	0.69	0.56	68.70	56.29	2.00
February 2012	983	907	2	2	100.00	7.02	17.62	0.78	0.74	77.79	73.45	4.00
March 2012	12,915	12,775	18	10	56.00	80.63	8.55	9.64	9.76	88.99	90.02	8.00
TOTAL	**115,620**	**113,446**	**217**	**135**	**62.21**	**1,001.39**	**1,495.72**	**4.60**	**4.53**	**68.91**	**67.77**	**7.42**

GENERATION SUMMARY
Trimble County, TC9
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	20,118	20,118	22	21	95.00	176.43	7.82	16.90	16.90	71.27	71.27	8.00
September 2010	8,945	8,945	11	11	100.00	75.75	-	7.76	7.76	73.80	73.80	7.00
October 2010	534	534	1	1	100.00	6.78	32.67	0.40	0.40	43.76	43.74	7.00
November 2010	822	822	4	4	100.00	9.85	2.23	0.63	0.63	46.36	46.36	2.00
December 2010	19,616	19,616	17	17	100.00	178.82	53.03	14.65	14.65	60.94	60.94	11.00
January 2011	5,132	4,887	10	9	90.00	48.83	-	3.83	3.65	58.39	55.61	5.00
February 2011	1,535	1,411	3	3	100.00	15.82	-	1.27	1.17	53.91	49.56	5.00
March 2011	1,884	1,746	4	3	75.00	20.13	6.13	1.41	1.30	52.00	48.17	7.00
April 2011	7,274	7,080	12	11	92.00	78.65	2.77	6.31	6.15	57.80	56.26	7.00
May 2011	8,062	7,854	11	11	100.00	83.32	10.70	6.77	6.60	60.47	58.92	8.00
June 2011	9,599	9,376	11	11	100.00	91.90	3.63	8.33	8.14	65.28	63.76	8.00
July 2011	19,968	19,661	21	21	100.00	181.75	3.15	16.77	16.52	68.67	67.61	9.00
August 2011	17,125	16,816	21	20	95.00	167.39	5.33	14.39	14.13	63.94	62.79	8.00
September 2011	5,424	5,233	6	6	100.00	48.75	-	4.71	4.54	69.54	67.09	8.00
October 2011	-	-	-	-	-	-	-	-	-	-	-	-
November 2011	1,230	1,087	1	1	100.00	14.08	98.35	0.95	0.84	48.53	42.88	14.00
December 2011	205	(10)	1	1	100.00	2.23	33.65	0.15	-	51.07	-	2.00
January 2012	2,730	2,513	3	3	100.00	16.47	-	2.04	1.92	92.09	86.69	5.00
February 2012	5,472	5,244	5	5	100.00	33.00	-	4.37	4.28	92.12	90.30	7.00
March 2012	9,951	9,769	6	6	100.00	61.60	11.70	7.43	7.46	89.75	90.11	10.00
TOTAL	**145,626**	**142,702**	**170**	**165**	**97.06**	**1,311.55**	**271.16**	**5.79**	**5.70**	**66.80**	**65.60**	**7.95**

GENERATION SUMMARY
Trimble County, TC10
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	23,948	23,948	28	24	86.00	208.00	6.05	20.12	20.12	71.96	71.96	9.00
September 2010	8,328	8,328	9	9	100.00	74.97	-	7.23	7.23	69.43	69.43	8.00
October 2010	-	-	-	-	-	-	34.47	-	-	-	-	-
November 2010	983	983	9	4	44.00	10.45	2.23	0.76	0.76	52.26	52.25	3.00
December 2010	10,255	10,255	13	7	54.00	97.35	64.10	7.66	7.66	58.52	58.52	14.00
January 2011	974	928	4	2	50.00	7.02	45.97	0.73	0.69	77.08	73.41	4.00
February 2011	1,607	1,478	11	5	45.00	14.95	-	1.33	1.22	59.72	54.91	3.00
March 2011	1,844	1,708	10	5	50.00	18.00	-	1.38	1.28	56.91	52.73	4.00
April 2011	3,771	3,671	8	5	63.00	41.26	16.22	3.27	3.19	57.12	55.60	8.00
May 2011	5,713	5,566	12	8	67.00	56.60	10.23	4.80	4.68	63.09	61.46	7.00
June 2011	7,737	7,557	15	9	60.00	72.78	2.67	6.72	6.56	66.44	64.90	8.00
July 2011	12,765	12,568	26	16	62.00	120.17	3.35	10.72	10.56	66.39	65.37	8.00
August 2011	10,100	9,918	18	12	67.00	89.68	3.85	8.48	8.33	70.39	69.12	7.00
September 2011	3,459	3,337	9	4	44.00	30.10	-	3.00	2.90	71.82	69.29	8.00
October 2011	211	(59)	5	2	40.00	2.33	-	0.16	-	50.31	-	1.00
November 2011	977	863	9	5	56.00	11.95	20.95	0.75	0.67	45.42	40.13	2.00
December 2011	45	(2)	5	1	20.00	0.64	63.33	0.03	-	39.06	-	1.00
January 2012	865	796	9	3	33.00	6.47	10.90	0.65	0.61	74.27	69.92	2.00
February 2012	876	840	1	1	100.00	5.83	-	0.70	0.69	83.48	81.82	6.00
March 2012	7,355	7,221	8	8	100.00	47.30	6.88	5.49	5.51	86.39	86.74	6.00
TOTAL	**101,813**	**99,902**	**209**	**130**	**62.20**	**915.85**	**291.20**	**4.05**	**3.99**	**67.43**	**66.27**	**7.05**

GENERATION SUMMARY
Zorn, Z1
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	23	18	4	1	25.00	1.90	1.23	0.22	0.17	86.47	67.67	2.00
September 2010	-	-	-	-	-	-	-	-	-	-	-	-
October 2010	-	-	9	-	-	-	-	-	-	-	-	-
November 2010	20	6	2	2	100.00	2.22	-	0.17	0.05	56.31	16.89	1.00
December 2010	99	84	4	2	50.00	7.83	-	0.83	0.71	79.02	67.05	4.00
January 2011	-	(17)	-	-	-	-	-	-	-	-	-	-
February 2011	-	(16)	-	-	-	-	-	-	-	-	-	-
March 2011	-	(15)	-	-	-	-	-	-	-	-	-	-
April 2011	-	(6)	-	-	-	-	-	-	-	-	-	-
May 2011	-	(6)	-	-	-	-	-	-	-	-	-	-
June 2011	-	(7)	-	-	-	-	-	-	-	-	-	-
July 2011	31	24	29	4	14.00	3.31	102.32	0.30	0.23	66.90	51.79	1.00
August 2011	-	(8)	-	-	-	-	744.00	-	-	-	-	-
September 2011	-	(5)	-	-	-	-	720.00	-	-	-	-	-
October 2011	-	(4)	-	-	-	-	744.00	-	-	-	-	-
November 2011	6	(9)	20	1	5.00	0.60	374.28	0.05	-	62.50	-	1.00
December 2011	-	(5)	-	-	-	-	-	-	-	-	-	-
January 2012	-	(7)	3	-	-	-	4.32	-	-	-	-	-
February 2012	-	(7)	-	-	-	-	-	-	-	-	-	-
March 2012	-	(9)	-	-	-	-	-	-	-	-	-	-
TOTAL	**179**	**11**	**71**	**10**	**14.08**	**15.86**	**2,690.15**	**0.08**	**-**	**73.56**	**4.52**	**1.59**

GENERATION SUMMARY
SUMMARY OF ALL CT UNITS
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	161,664	160,439	217	191	88.00	1,493.55	411.72	10.48	10.44	70.32	69.84	8.00
September 2010	62,610	61,710	106	88	83.00	588.49	1,385.07	4.19	4.15	70.15	69.21	7.00
October 2010	4,364	3,383	22	13	59.00	46.35	3,133.32	0.24	0.19	60.63	47.19	4.00
November 2010	7,065	5,987	68	38	56.00	90.21	3,249.66	0.41	0.35	52.00	44.24	2.00
December 2010	121,299	119,678	159	126	79.00	1,220.19	1,577.15	6.74	6.68	58.32	57.74	10.00
January 2011	18,409	16,235	44	38	86.00	170.07	975.47	1.02	0.91	61.15	54.06	4.00
February 2011	13,719	10,278	50	34	68.00	146.68	876.23	0.84	0.64	57.40	43.19	4.00
March 2011	24,101	19,452	71	54	76.00	244.82	1,094.45	1.34	1.09	58.58	47.48	5.00
April 2011	45,225	43,365	88	75	85.00	489.80	1,449.84	3.03	2.92	58.51	56.12	7.00
May 2011	51,460	48,897	95	84	88.00	530.65	1,256.39	3.33	3.18	62.34	59.29	6.00
June 2011	70,290	67,749	112	96	86.00	667.84	130.91	4.71	4.55	67.46	65.10	7.00
July 2011	140,495	137,425	244	187	77.00	1,387.29	822.57	9.10	8.94	66.94	65.55	7.00
August 2011	104,041	101,246	154	140	91.00	1,008.29	2,342.50	6.74	6.59	68.71	66.93	7.00
September 2011	33,451	31,280	61	50	82.00	311.12	2,472.48	2.24	2.10	70.21	65.71	6.00
October 2011	4,030	2,293	14	11	79.00	131.83	4,367.61	0.22	0.13	17.89	10.36	12.00
November 2011	9,999	8,089	86	52	60.00	121.84	5,061.67	0.57	0.47	50.76	41.12	2.00
December 2011	1,301	(622)	49	12	24.00	15.68	1,558.04	0.07	-	52.03	-	1.00
January 2012	11,219	9,036	65	37	57.00	92.18	816.03	0.63	0.52	77.25	63.13	2.00
February 2012	17,142	15,117	30	29	97.00	114.40	1,004.40	1.03	0.93	85.74	77.23	4.00
March 2012	93,561	91,385	85	76	89.00	606.74	1,159.71	5.28	5.23	87.33	87.06	8.00
TOTALS	**995,445**	**952,422**	**1,820**	**1,431**	**78.63**	**9,478.02**	**35,145.22**	**3.00**	**2.89**	**66.26**	**63.62**	**6.62**

Micro *GADS* Gold

Version:	Reporting Period:	User:	Current Date:
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GENERATION SUMMARY
Brown, BR5
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	2,156	2,017	3	3	100.00	22.37	155.00	2.41	2.32	80.32	77.06	7.00
September 2010	-	(25)	-	-	-	-	720.00	-	-	-	-	-
October 2010	490	397	1	1	100.00	6.14	648.73	0.46	0.37	55.81	45.22	6.00
November 2010	1,349	1,137	3	3	100.00	16.48	17.72	1.31	1.10	57.24	48.25	5.00
December 2010	2,096	1,840	4	4	100.00	36.42	-	1.97	1.73	40.25	35.33	9.00
January 2011	-	(212)	-	-	-	-	3.25	-	-	-	-	-
February 2011	1,230	825	1	1	100.00	15.36	5.72	1.28	0.86	56.00	37.56	15.00
March 2011	182	(322)	1	1	100.00	2.71	221.52	0.17	-	46.96	-	3.00
April 2011	313	165	1	1	100.00	4.18	3.00	0.36	0.20	62.40	33.74	4.00
May 2011	843	526	2	2	100.00	10.43	42.25	0.94	0.60	67.35	43.10	5.00
June 2011	910	707	3	3	100.00	14.73	-	1.05	0.84	51.48	41.02	5.00
July 2011	1,637	1,431	4	4	100.00	19.41	10.92	1.83	1.64	70.28	63.01	5.00
August 2011	1,181	1,003	2	2	100.00	14.75	-	1.32	1.15	66.72	58.12	7.00
September 2011	-	(122)	-	-	-	-	25.97	-	-	-	-	-
October 2011	-	(130)	-	-	-	-	-	-	-	-	-	-
November 2011	97	(66)	1	1	100.00	2.04	3.93	0.09	-	33.25	-	2.00
December 2011	-	(171)	-	-	-	-	-	-	-	-	-	-
January 2012	1	(187)	2	1	50.00	0.07	41.46	-	-	10.91	-	-
February 2012	385	171	1	1	100.00	3.40	-	0.42	0.19	86.44	38.69	3.00
March 2012	-	(131)	-	-	-	-	-	-	-	-	-	-
TOTAL	**12,870**	**8,853**	**29**	**28**	**96.55**	**168.49**	**1,899.47**	**0.67**	**0.47**	**58.29**	**40.58**	**6.02**

GENERATION SUMMARY
Brown, BR6
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	13,427	13,155	13	13	100.00	140.63	5.60	11.72	11.48	62.00	60.74	11.00
September 2010	5,744	5,561	6	6	100.00	56.33	2.80	5.18	5.02	66.21	64.11	9.00
October 2010	-	(134)	-	-	-	-	21.87	-	-	-	-	-
November 2010	927	745	2	2	100.00	8.63	4.17	0.75	0.62	62.82	51.38	4.00
December 2010	9,163	8,832	11	11	100.00	115.12	0.40	7.20	7.07	46.55	45.67	10.00
January 2011	-	(176)	-	-	-	-	8.28	-	-	-	-	-
February 2011	1,656	1,196	2	2	100.00	18.32	-	1.44	1.06	52.86	38.86	9.00
March 2011	1,750	1,051	3	3	100.00	16.54	27.66	1.38	0.84	61.87	37.82	6.00
April 2011	886	726	2	2	100.00	10.69	6.13	0.80	0.65	53.82	44.10	5.00
May 2011	3,900	3,727	9	9	100.00	41.11	226.24	3.40	3.25	61.60	58.87	5.00
June 2011	4,435	4,226	6	6	100.00	47.15	6.53	4.00	3.81	61.08	58.20	8.00
July 2011	8,932	8,676	15	15	100.00	97.87	15.08	7.80	7.57	59.26	57.56	7.00
August 2011	5,073	4,884	7	7	100.00	53.90	5.85	4.43	4.26	61.12	58.84	8.00
September 2011	1,624	1,474	2	2	100.00	17.45	-	1.46	1.33	60.43	54.85	9.00
October 2011	3,200	2,998	4	4	100.00	122.64	8.23	2.52	2.40	15.26	14.55	31.00
November 2011	45	(138)	6	6	100.00	2.65	23.67	0.04	-	9.93	-	-
December 2011	-	(163)	-	-	-	-	32.30	-	-	-	-	-
January 2012	648	432	1	1	100.00	4.86	1.57	0.51	0.34	77.52	51.98	5.00
February 2012	293	122	1	1	100.00	3.15	154.92	0.24	0.10	54.08	22.65	3.00
March 2012	3,960	3,792	4	4	100.00	30.48	40.85	3.09	2.98	75.54	72.75	8.00
TOTAL	**65,663**	**60,986**	**94**	**94**	**100.00**	**787.52**	**592.15**	**2.73**	**2.56**	**51.79**	**48.44**	**8.38**

GENERATION SUMMARY
Brown, BR7
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	10,864	10,648	12	12	100.00	114.05	9.02	9.48	9.29	61.85	60.63	10.00
September 2010	4,117	3,947	6	6	100.00	42.65	-	3.71	3.56	62.68	60.09	7.00
October 2010	113	(20)	3	3	100.00	2.02	225.75	0.09	-	32.71	-	1.00
November 2010	470	323	1	1	100.00	4.73	-	0.38	0.27	58.11	40.65	5.00
December 2010	7,373	7,061	11	11	100.00	104.54	95.78	5.80	5.65	41.24	40.20	10.00
January 2011	2,322	2,099	2	2	100.00	21.08	37.67	1.83	1.68	64.42	59.27	11.00
February 2011	468	28	1	1	100.00	4.65	8.73	0.41	0.02	58.86	3.58	5.00
March 2011	3,078	2,401	2	2	100.00	24.28	22.27	2.42	1.92	74.14	58.86	12.00
April 2011	1,117	926	3	3	100.00	11.41	6.92	1.01	0.84	63.57	52.70	4.00
May 2011	3,851	3,685	8	8	100.00	37.93	8.22	3.36	3.22	65.93	63.09	5.00
June 2011	4,769	4,574	6	6	100.00	45.88	38.20	4.30	4.13	67.50	64.74	8.00
July 2011	12,632	12,369	16	16	100.00	120.80	46.50	11.02	10.80	67.90	66.49	8.00
August 2011	6,161	5,964	10	10	100.00	54.42	7.38	5.38	5.21	73.51	71.16	5.00
September 2011	1,463	1,300	2	2	100.00	14.13	8.67	1.32	1.17	67.23	59.74	7.00
October 2011	567	429	1	1	100.00	5.67	91.00	0.45	0.34	58.48	45.04	6.00
November 2011	347	208	2	2	100.00	4.22	230.05	0.28	0.17	48.09	29.34	2.00
December 2011	73	(91)	1	1	100.00	0.98	-	0.06	-	43.31	-	1.00
January 2012	2,083	1,860	3	3	100.00	16.93	-	1.63	1.46	71.53	64.25	6.00
February 2012	-	(182)	-	-	-	-	2.08	-	-	-	-	-
March 2012	3,858	3,703	3	3	100.00	26.58	-	3.01	2.91	84.39	81.47	9.00
TOTAL	**65,726**	**61,232**	**93**	**93**	**100.00**	**656.95**	**838.24**	**2.74**	**2.57**	**62.67**	**58.69**	**7.06**

GENERATION SUMMARY
Brown, BR8
August 2010 - March 2012

			Starting									
Month	**GAG**	**NAG**	**Att**	**Act**	**Rel.**	**SH**	**OH**	**GCF**	**NCF**	**GOF**	**NOF**	**SH/Start**
August 2010	1,108	979	3	3	100.00	17.43	0.72	1.39	1.24	59.41	52.99	6.00
September 2010	342	225	3	3	100.00	6.75	1.10	0.44	0.29	47.35	31.45	2.00
October 2010	-	(107)	-	-	-	-	-	-	-	-	-	-
November 2010	211	74	1	1	100.00	3.28	1.32	0.21	0.07	45.62	16.11	3.00
December 2010	261	121	3	2	67.00	5.01	6.52	0.25	0.12	36.95	17.25	3.00
January 2011	68	-	1	1	100.00	1.15	55.80	0.06	-	41.94	-	1.00
February 2011	1,798	1,407	4	4	100.00	19.82	80.63	1.90	1.50	64.34	50.71	5.00
March 2011	1,896	1,395	4	4	100.00	24.90	-	1.81	1.34	54.00	40.02	6.00
April 2011	90	(10)	1	1	100.00	1.78	-	0.12	-	47.25	-	2.00
May 2011	-	(121)	-	-	-	-	-	-	-	-	-	-
June 2011	504	355	1	1	100.00	6.12	-	0.65	0.47	76.97	54.72	6.00
July 2011	920	761	3	3	100.00	15.90	-	1.16	0.96	54.08	45.15	5.00
August 2011	1,090	926	2	2	100.00	16.70	-	1.37	1.17	61.00	52.31	8.00
September 2011	-	(107)	-	-	-	-	1.50	-	-	-	-	-
October 2011	-	(108)	1	1	100.00	0.03	3.30	-	-	2.36	-	-
November 2011	106	(27)	1	1	100.00	2.15	-	0.10	-	34.97	-	2.00
December 2011	-	(131)	-	-	-	-	-	-	-	-	-	-
January 2012	503	363	1	1	100.00	4.92	-	0.52	0.38	79.25	57.64	5.00
February 2012	-	(109)	-	-	-	-	10.17	-	-	-	-	-
March 2012	766	644	1	1	100.00	8.23	-	0.80	0.68	72.15	61.13	8.00
TOTAL	**9,663**	**6,530**	**30**	**29**	**96.67**	**134.17**	**161.06**	**0.53**	**0.36**	**58.35**	**39.75**	**4.63**

GENERATION SUMMARY
Brown, BR9
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	1,015	889	4	4	100.00	17.45	2.70	1.27	1.13	54.36	48.06	4.00
September 2010	1,042	923	5	5	100.00	19.11	2.42	1.35	1.21	50.96	45.57	4.00
October 2010	-	(107)	-	-	-	-	-	-	-	-	-	-
November 2010	510	369	2	2	100.00	7.45	1.33	0.50	0.37	48.55	35.38	4.00
December 2010	619	471	5	4	80.00	11.10	5.45	0.59	0.45	39.55	30.31	3.00
January 2011	82	(65)	1	1	100.00	1.47	-	0.08	-	39.56	-	1.00
February 2011	1,317	1,023	2	2	100.00	14.97	76.60	1.39	1.09	62.39	48.81	7.00
March 2011	1,622	1,138	3	3	100.00	20.10	1.83	1.55	1.09	57.23	40.44	7.00
April 2011	-	(94)	-	-	-	-	-	-	-	-	-	-
May 2011	429	207	2	2	100.00	7.88	39.30	0.54	0.26	50.88	24.78	4.00
June 2011	683	515	3	3	100.00	8.46	0.02	0.89	0.67	75.45	57.43	3.00
July 2011	1,939	1,729	5	5	100.00	30.65	-	2.44	2.19	59.12	53.22	6.00
August 2011	885	729	2	2	100.00	13.18	-	1.11	0.92	62.75	52.18	7.00
September 2011	150	(242)	2	2	100.00	2.83	-	0.19	-	49.54	-	1.00
October 2011	52	(95)	1	1	100.00	1.08	-	0.05	-	34.15	-	1.00
November 2011	140	7	3	2	67.00	1.98	0.45	0.14	0.01	50.15	2.53	1.00
December 2011	-	(134)	-	-	-	-	-	-	-	-	-	-
January 2012	586	438	3	2	67.00	7.21	2.42	0.57	0.43	58.47	44.02	4.00
February 2012	-	(109)	1	-	-	-	9.90	-	-	-	-	-
March 2012	1,006	856	2	2	100.00	10.73	-	0.97	0.83	67.45	57.81	5.00
TOTAL	**12,077**	**8,448**	**46**	**42**	**91.30**	**175.65**	**142.42**	**0.65**	**0.46**	**56.58**	**39.91**	**4.18**

GENERATION SUMMARY
Brown, BR10
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	935	808	3	3	100.00	16.71	0.42	1.17	1.02	52.29	45.62	6.00
September 2010	427	307	2	2	100.00	8.06	1.37	0.55	0.40	49.51	35.93	4.00
October 2010	53	(58)	1	1	100.00	1.08	-	0.05	-	34.80	-	1.00
November 2010	203	62	1	1	100.00	2.97	39.65	0.20	0.06	48.48	14.91	3.00
December 2010	1,350	1,181	9	8	89.00	24.77	44.85	1.29	1.13	38.65	34.06	3.00
January 2011	540	369	2	2	100.00	5.58	-	0.51	0.35	68.63	47.24	3.00
February 2011	-	(264)	1	-	-	-	10.32	-	-	-	-	-
March 2011	566	158	1	1	100.00	4.87	4.13	0.54	0.15	82.43	23.17	5.00
April 2011	-	(94)	1	1	100.00	0.05	-	-	-	1.87	-	-
May 2011	475	256	2	2	100.00	9.10	-	0.60	0.32	48.78	26.54	5.00
June 2011	508	351	2	2	100.00	6.65	-	0.66	0.46	71.39	49.79	3.00
July 2011	693	549	2	2	100.00	11.73	-	0.87	0.70	55.21	44.15	6.00
August 2011	915	769	2	2	100.00	13.92	-	1.15	0.98	61.43	52.12	7.00
September 2011	-	(112)	-	-	-	-	-	-	-	-	-	-
October 2011	-	(104)	1	1	100.00	0.03	16.00	-	-	2.36	-	-
November 2011	124	(6)	3	2	67.00	2.02	17.83	0.12	-	43.54	-	1.00
December 2011	-	(131)	-	-	-	-	-	-	-	-	-	-
January 2012	423	283	1	1	100.00	3.45	-	0.41	0.28	88.21	59.44	3.00
February 2012	36	(90)	1	1	100.00	0.73	1.17	0.04	-	35.48	-	1.00
March 2012	-	(103)	-	-	-	-	26.42	-	-	-	-	-
TOTAL	**7,248**	**4,131**	**35**	**32**	**91.43**	**111.72**	**162.16**	**0.39**	**0.22**	**53.72**	**30.87**	**3.49**

GENERATION SUMMARY
Brown, BR11
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	1,694	1,554	6	6	100.00	26.22	9.43	2.13	1.97	60.38	55.91	4.00
September 2010	1,418	1,287	6	5	83.00	26.88	8.50	1.84	1.69	49.30	45.17	5.00
October 2010	2,511	2,235	3	3	100.00	22.00	69.95	2.39	2.15	80.95	72.56	7.00
November 2010	-	(69)	-	-	-	-	559.10	-	-	-	-	-
December 2010	1,503	1,331	3	3	100.00	18.32	43.40	1.43	1.28	58.19	51.89	6.00
January 2011	-	(156)	-	-	-	-	3.48	-	-	-	-	-
February 2011	49	(217)	1	1	100.00	0.76	3.37	0.05	-	45.73	-	1.00
March 2011	321	(73)	3	3	100.00	5.83	3.25	0.31	-	39.05	-	2.00
April 2011	1	(93)	1	1	100.00	0.05	-	-	-	18.69	-	-
May 2011	702	427	3	3	100.00	9.17	2.98	0.88	0.54	71.55	43.93	3.00
June 2011	-	(111)	-	-	-	-	0.12	-	-	-	-	-
July 2011	1,240	1,068	4	4	100.00	20.88	-	1.56	1.35	55.50	48.25	5.00
August 2011	1,049	894	3	3	100.00	14.96	7.07	1.32	1.13	65.53	56.38	5.00
September 2011	-	(100)	-	-	-	-	-	-	-	-	-	-
October 2011	-	(113)	1	1	100.00	0.05	-	-	-	1.42	-	-
November 2011	34	(89)	2	1	50.00	0.68	0.55	0.03	-	35.46	-	1.00
December 2011	-	(136)	-	-	-	-	-	-	-	-	-	-
January 2012	764	606	2	1	50.00	9.90	6.73	0.80	0.64	59.82	47.82	10.00
February 2012	-	(122)	-	-	-	-	4.87	-	-	-	-	-
March 2012	789	659	1	1	100.00	8.46	26.42	0.82	0.69	72.30	60.86	8.00
TOTAL	**12,075**	**8,782**	**39**	**36**	**92.31**	**164.16**	**749.22**	**0.66**	**0.48**	**61.64**	**45.21**	**4.56**

GENERATION SUMMARY
SUMMARY OF ALL BR CT UNITS
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	31,199	30,050	44	44	100.00	354.86	182.89	4.90	4.76	62.11	60.00	8.00
September 2010	13,090	12,225	28	27	96.00	159.78	736.19	2.12	2.00	60.19	56.37	6.00
October 2010	3,167	2,206	8	8	100.00	31.24	966.30	0.41	0.29	70.73	49.59	4.00
November 2010	3,670	2,641	10	10	100.00	43.54	623.29	0.49	0.35	55.84	40.51	4.00
December 2010	22,365	20,837	46	43	93.00	315.28	196.40	2.87	2.70	43.75	41.34	7.00
January 2011	3,012	1,859	6	6	100.00	29.28	108.48	0.39	0.24	63.27	39.64	5.00
February 2011	6,518	3,998	12	11	92.00	73.88	185.37	0.92	0.57	58.53	36.24	7.00
March 2011	9,415	5,748	17	17	100.00	99.23	280.66	1.21	0.74	61.85	38.21	6.00
April 2011	2,407	1,526	9	9	100.00	28.16	16.05	0.39	0.25	58.62	37.29	3.00
May 2011	10,200	8,707	26	26	100.00	115.62	318.99	1.60	1.38	62.88	53.87	4.00
June 2011	11,809	10,617	21	21	100.00	128.99	44.87	1.92	1.74	64.30	58.02	6.00
July 2011	27,993	26,583	49	49	100.00	317.24	72.50	4.40	4.21	62.94	59.96	6.00
August 2011	16,354	15,169	28	28	100.00	181.83	20.30	2.57	2.40	66.11	61.57	6.00
September 2011	3,237	2,091	6	6	100.00	34.41	36.14	0.53	0.34	62.66	40.50	6.00
October 2011	3,819	2,877	9	9	100.00	129.50	118.53	0.49	0.37	17.27	13.24	14.00
November 2011	893	(111)	18	15	83.00	15.74	276.48	0.12	-	36.76	-	1.00
December 2011	73	(957)	1	1	100.00	0.98	32.30	0.01	-	43.31	-	1.00
January 2012	5,008	3,795	13	10	77.00	47.34	52.18	0.67	0.51	70.04	53.43	5.00
February 2012	714	(319)	4	3	75.00	7.28	183.11	0.10	-	65.58	-	2.00
March 2012	10,379	9,420	11	11	100.00	84.48	93.69	1.38	1.26	77.12	70.43	8.00
TOTALS	**185,322**	**158,962**	**366**	**354**	**96.72**	**2,198.66**	**4,544.72**	**1.32**	**1.14**	**57.07**	**49.30**	**6.21**

Micro *GADS* Gold

Version:	Reporting Period:	User:	Current Date:
1.3.38.462	April 2012	Bud Carter	4/18/2012 11:50

GENERATION SUMMARY
Trimble County, TC5
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	19,083	19,083	20	19	95.00	167.22	55.23	16.03	16.03	71.32	71.32	9.00
September 2010	9,101	9,101	11	11	100.00	78.82	17.13	7.90	7.90	72.17	72.16	7.00
October 2010	-	-	-	-	-	-	34.50	-	-	-	-	-
November 2010	64	64	3	3	100.00	1.09	458.98	0.05	0.05	32.62	32.52	-
December 2010	18,977	18,977	14	12	86.00	164.70	17.58	14.17	14.17	64.01	64.01	14.00
January 2011	1,382	1,211	4	4	100.00	11.07	36.45	1.03	0.90	69.36	60.77	3.00
February 2011	1,150	973	2	2	100.00	11.42	-	0.95	0.80	55.94	47.34	6.00
March 2011	1,819	1,704	3	3	100.00	15.78	8.35	1.36	1.27	64.04	60.01	5.00
April 2011	-	-	-	-	-	-	694.80	-	-	-	-	-
May 2011	-	-	-	-	-	-	744.00	-	-	-	-	-
June 2011	9,583	9,314	15	13	87.00	94.83	37.40	8.32	8.09	63.16	61.39	7.00
July 2011	21,826	21,534	25	19	76.00	205.59	11.13	18.34	18.09	66.35	65.46	11.00
August 2011	15,956	15,658	23	23	100.00	150.34	52.83	13.40	13.15	66.33	65.09	7.00
September 2011	6,079	5,844	8	8	100.00	57.77	-	5.28	5.07	65.77	63.23	7.00
October 2011	-	(158)	-	-	-	-	-	-	-	-	-	-
November 2011	3,151	2,885	7	7	100.00	35.92	32.78	2.43	2.23	48.73	44.62	5.00
December 2011	689	390	2	2	100.00	6.95	58.03	0.51	0.30	55.08	31.88	3.00
January 2012	636	464	3	2	67.00	4.08	31.43	0.47	0.35	86.60	64.64	2.00
February 2012	2,131	2,027	3	3	100.00	13.82	9.75	1.70	1.65	85.66	83.34	5.00
March 2012	4,106	4,053	5	5	100.00	28.12	162.43	3.07	3.10	81.12	81.90	6.00
TOTAL	**115,733**	**113,124**	**148**	**136**	**91.89**	**1,047.52**	**2,462.80**	**4.60**	**4.52**	**66.72**	**65.30**	**7.70**

GENERATION SUMMARY
Trimble County, TC6
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	24,824	24,824	30	29	97.00	212.60	0.93	20.85	20.85	72.98	72.98	7.00
September 2010	2,489	2,489	3	3	100.00	20.91	479.47	2.16	2.16	74.40	74.39	7.00
October 2010	-	-	-	-	-	-	744.00	-	-	-	-	-
November 2010	-	-	-	-	-	-	720.00	-	-	-	-	-
December 2010	7,344	7,344	12	9	75.00	54.02	286.60	5.48	5.48	75.53	75.53	6.00
January 2011	1,317	1,154	7	4	57.00	10.43	25.30	0.98	0.86	70.15	61.47	3.00
February 2011	750	635	5	5	100.00	8.50	16.58	0.62	0.53	49.02	41.51	2.00
March 2011	3,356	3,145	5	5	100.00	31.03	2.62	2.51	2.35	60.09	56.30	6.00
April 2011	8,678	8,429	12	10	83.00	88.28	1.65	7.53	7.32	61.44	59.68	9.00
May 2011	7,201	6,917	10	10	100.00	70.45	6.20	6.05	5.81	63.88	61.36	7.00
June 2011	7,482	7,272	9	9	100.00	68.13	12.30	6.49	6.31	68.64	66.71	8.00
July 2011	22,429	22,128	26	24	92.00	205.08	13.42	18.84	18.59	68.35	67.44	9.00
August 2011	13,667	13,411	16	16	100.00	120.95	7.78	11.48	11.27	70.62	69.30	8.00
September 2011	3,294	3,167	3	3	100.00	27.43	-	2.86	2.75	75.05	72.16	9.00
October 2011	-	(158)	-	-	-	-	-	-	-	-	-	-
November 2011	352	322	1	1	100.00	4.15	33.85	0.27	0.25	47.12	43.14	4.00
December 2011	-	-	-	-	-	-	77.33	-	-	-	-	-
January 2012	530	387	1	1	100.00	3.10	40.55	0.40	0.30	94.98	70.90	3.00
February 2012	4,049	3,852	6	6	100.00	25.47	12.18	3.23	3.14	88.32	85.93	4.00
March 2012	27,127	26,779	18	17	94.00	167.30	14.37	20.26	20.45	90.08	90.95	10.00
TOTAL	**134,889**	**132,097**	**164**	**152**	**92.68**	**1,117.83**	**2,495.13**	**5.37**	**5.28**	**72.94**	**71.73**	**7.35**

GENERATION SUMMARY
Trimble County, TC7
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	22,112	22,112	27	25	93.00	189.61	12.57	18.58	18.58	72.89	72.89	8.00
September 2010	9,793	9,793	13	13	100.00	87.93	-	8.50	8.50	69.61	69.61	7.00
October 2010	663	663	4	4	100.00	8.33	31.43	0.50	0.49	44.22	44.20	2.00
November 2010	821	821	4	3	75.00	8.90	40.95	0.63	0.63	51.25	51.24	3.00
December 2010	23,563	23,563	14	13	93.00	205.28	8.23	17.59	17.59	63.77	63.77	16.00
January 2011	2,819	2,695	3	3	100.00	25.27	-	2.10	2.01	61.98	59.25	8.00
February 2011	681	602	2	2	100.00	7.32	2.20	0.56	0.50	51.68	45.66	4.00
March 2011	2,921	2,765	10	9	90.00	28.98	3.43	2.18	2.06	56.00	53.00	3.00
April 2011	16,267	16,018	18	18	100.00	178.92	-	14.12	13.90	56.82	55.95	10.00
May 2011	11,715	11,463	16	16	100.00	126.72	-	9.84	9.63	57.78	56.54	8.00
June 2011	9,613	9,393	10	10	100.00	91.05	8.75	8.34	8.15	65.99	64.48	9.00
July 2011	13,281	13,025	15	14	93.00	118.92	19.82	11.16	10.94	69.80	68.46	8.00
August 2011	13,543	13,285	17	16	94.00	121.20	-	11.38	11.16	69.84	68.51	8.00
September 2011	3,549	3,416	3	3	100.00	28.27	-	3.08	2.97	78.46	75.52	9.00
October 2011	-	(80)	-	-	-	-	-	-	-	-	-	-
November 2011	362	338	1	1	100.00	3.78	21.97	0.28	0.26	53.20	49.71	4.00
December 2011	213	5	1	1	100.00	2.20	-	0.16	-	53.79	1.39	2.00
January 2012	508	407	2	1	50.00	3.07	48.33	0.38	0.31	91.93	75.32	3.00
February 2012	2,440	2,253	5	5	100.00	16.73	32.57	1.95	1.84	81.03	76.50	3.00
March 2012	21,701	21,465	16	16	100.00	135.30	22.33	16.20	16.39	89.11	90.14	8.00
TOTAL	**156,565**	**154,001**	**181**	**173**	**95.58**	**1,387.78**	**252.58**	**6.23**	**6.15**	**67.79**	**66.86**	**8.02**

GENERATION SUMMARY
Trimble County, TC8
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	18,828	18,828	24	18	75.00	157.22	6.20	15.82	15.82	74.85	74.85	9.00
September 2010	6,334	6,334	6	6	100.00	53.13	5.17	5.50	5.50	74.51	74.51	9.00
October 2010	-	-	-	-	-	-	19.37	-	-	-	-	-
November 2010	626	626	8	4	50.00	7.80	2.25	0.48	0.48	44.59	44.58	2.00
December 2010	18,719	18,719	22	15	68.00	168.18	31.20	13.98	13.98	61.84	61.83	11.00
January 2011	3,773	3,607	10	10	100.00	38.17	9.27	2.82	2.69	54.92	52.50	4.00
February 2011	1,448	1,279	11	2	18.00	12.75	-	1.20	1.06	63.09	55.74	6.00
March 2011	2,838	2,686	19	9	47.00	29.97	7.50	2.12	2.01	52.61	49.79	3.00
April 2011	6,031	5,939	12	8	67.00	62.23	-	5.24	5.16	60.57	59.65	8.00
May 2011	5,293	5,179	11	6	55.00	52.56	2.27	4.45	4.35	62.94	61.59	9.00
June 2011	7,643	7,468	14	9	64.00	68.26	2.67	6.63	6.48	69.98	68.38	8.00
July 2011	11,640	11,416	17	13	76.00	103.97	0.75	9.78	9.59	69.97	68.62	8.00
August 2011	10,871	10,664	15	11	73.00	93.35	-	9.13	8.96	72.78	71.39	8.00
September 2011	3,751	3,610	7	4	57.00	32.73	175.55	3.26	3.13	71.63	68.94	8.00
October 2011	-	(80)	-	-	-	-	744.00	-	-	-	-	-
November 2011	2,944	2,751	5	4	80.00	25.20	442.77	2.27	2.12	64.90	60.64	6.00
December 2011	63	2	3	1	33.00	0.78	-	0.05	-	44.87	1.17	1.00
January 2012	920	737	13	3	23.00	7.44	20.58	0.69	0.56	68.70	56.29	2.00
February 2012	983	907	2	2	100.00	7.02	17.62	0.78	0.74	77.79	73.45	4.00
March 2012	12,915	12,775	18	10	56.00	80.63	8.55	9.64	9.76	88.99	90.02	8.00
TOTAL	**115,620**	**113,446**	**217**	**135**	**62.21**	**1,001.39**	**1,495.72**	**4.60**	**4.53**	**68.91**	**67.77**	**7.42**

GENERATION SUMMARY
Trimble County, TC9
August 2010 - March 2012

Month	GAG	NAG	Starting Att	Starting Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	20,118	20,118	22	21	95.00	176.43	7.82	16.90	16.90	71.27	71.27	8.00
September 2010	8,945	8,945	11	11	100.00	75.75	-	7.76	7.76	73.80	73.80	7.00
October 2010	534	534	1	1	100.00	6.78	32.67	0.40	0.40	43.76	43.74	7.00
November 2010	822	822	4	4	100.00	9.85	2.23	0.63	0.63	46.36	46.36	2.00
December 2010	19,616	19,616	17	17	100.00	178.82	53.03	14.65	14.65	60.94	60.94	11.00
January 2011	5,132	4,887	10	9	90.00	48.83	-	3.83	3.65	58.39	55.61	5.00
February 2011	1,535	1,411	3	3	100.00	15.82	-	1.27	1.17	53.91	49.56	5.00
March 2011	1,884	1,746	4	3	75.00	20.13	6.13	1.41	1.30	52.00	48.17	7.00
April 2011	7,274	7,080	12	11	92.00	78.65	2.77	6.31	6.15	57.80	56.26	7.00
May 2011	8,062	7,854	11	11	100.00	83.32	10.70	6.77	6.60	60.47	58.92	8.00
June 2011	9,599	9,376	11	11	100.00	91.90	3.63	8.33	8.14	65.28	63.76	8.00
July 2011	19,968	19,661	21	21	100.00	181.75	3.15	16.77	16.52	68.67	67.61	9.00
August 2011	17,125	16,816	21	20	95.00	167.39	5.33	14.39	14.13	63.94	62.79	8.00
September 2011	5,424	5,233	6	6	100.00	48.75	-	4.71	4.54	69.54	67.09	8.00
October 2011	-	-	-	-	-	-	-	-	-	-	-	-
November 2011	1,230	1,087	1	1	100.00	14.08	98.35	0.95	0.84	48.53	42.88	14.00
December 2011	205	(10)	1	1	100.00	2.23	33.65	0.15	-	51.07	-	2.00
January 2012	2,730	2,513	3	3	100.00	16.47	-	2.04	1.92	92.09	86.69	5.00
February 2012	5,472	5,244	5	5	100.00	33.00	-	4.37	4.28	92.12	90.30	7.00
March 2012	9,951	9,769	6	6	100.00	61.60	11.70	7.43	7.46	89.75	90.11	10.00
TOTAL	**145,626**	**142,702**	**170**	**165**	**97.06**	**1,311.55**	**271.16**	**5.79**	**5.70**	**66.80**	**65.60**	**7.95**

GENERATION SUMMARY
Trimble County, TC10
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	23,948	23,948	28	24	86.00	208.00	6.05	20.12	20.12	71.96	71.96	9.00
September 2010	8,328	8,328	9	9	100.00	74.97	-	7.23	7.23	69.43	69.43	8.00
October 2010	-	-	-	-	-	-	34.47	-	-	-	-	-
November 2010	983	983	9	4	44.00	10.45	2.23	0.76	0.76	52.26	52.25	3.00
December 2010	10,255	10,255	13	7	54.00	97.35	64.10	7.66	7.66	58.52	58.52	14.00
January 2011	974	928	4	2	50.00	7.02	45.97	0.73	0.69	77.08	73.41	4.00
February 2011	1,607	1,478	11	5	45.00	14.95	-	1.33	1.22	59.72	54.91	3.00
March 2011	1,844	1,708	10	5	50.00	18.00	-	1.38	1.28	56.91	52.73	4.00
April 2011	3,771	3,671	8	5	63.00	41.26	16.22	3.27	3.19	57.12	55.60	8.00
May 2011	5,713	5,566	12	8	67.00	56.60	10.23	4.80	4.68	63.09	61.46	7.00
June 2011	7,737	7,557	15	9	60.00	72.78	2.67	6.72	6.56	66.44	64.90	8.00
July 2011	12,765	12,568	26	16	62.00	120.17	3.35	10.72	10.56	66.39	65.37	8.00
August 2011	10,100	9,918	18	12	67.00	89.68	3.85	8.48	8.33	70.39	69.12	7.00
September 2011	3,459	3,337	9	4	44.00	30.10	-	3.00	2.90	71.82	69.29	8.00
October 2011	211	(59)	5	2	40.00	2.33	-	0.16	-	50.31	-	1.00
November 2011	977	863	9	5	56.00	11.95	20.95	0.75	0.67	45.42	40.13	2.00
December 2011	45	(2)	5	1	20.00	0.64	63.33	0.03	-	39.06	-	1.00
January 2012	865	796	9	3	33.00	6.47	10.90	0.65	0.61	74.27	69.92	2.00
February 2012	876	840	1	1	100.00	5.83	-	0.70	0.69	83.48	81.82	6.00
March 2012	7,355	7,221	8	8	100.00	47.30	6.88	5.49	5.51	86.39	86.74	6.00
TOTAL	**101,813**	**99,902**	**209**	**130**	**62.20**	**915.85**	**291.20**	**4.05**	**3.99**	**67.43**	**66.27**	**7.05**

GENERATION SUMMARY
SUMMARY OF ALL TC CT UNITS
August 2010 - March 2012

			Starting									
Month	GAG	NAG	Att	Act	Rel.	SH	OH	GCF	NCF	GOF	NOF	SH/Start
August 2010	128,913	128,911	151	136	90.00	1,111.08	88.80	18.05	18.05	72.52	72.51	8.00
September 2010	44,990	44,989	53	53	100.00	391.51	501.77	6.51	6.51	71.82	71.82	7.00
October 2010	1,197	1,197	5	5	100.00	15.11	896.44	0.15	0.15	44.01	44.01	3.00
November 2010	3,316	3,315	28	18	64.00	38.09	1,226.64	0.43	0.43	48.36	48.35	2.00
December 2010	98,474	98,473	92	73	79.00	868.35	460.74	12.26	12.26	63.00	63.00	12.00
January 2011	15,397	14,482	38	32	84.00	140.79	116.99	1.92	1.80	60.76	57.15	4.00
February 2011	7,171	6,378	34	19	56.00	70.76	18.78	0.99	0.88	56.30	50.08	4.00
March 2011	14,662	13,754	51	34	67.00	143.89	28.03	1.82	1.71	56.61	53.10	4.00
April 2011	42,021	41,137	62	52	84.00	449.34	715.44	6.08	5.95	58.45	57.22	9.00
May 2011	37,984	36,979	60	51	85.00	389.65	773.40	5.32	5.18	60.93	59.31	8.00
June 2011	51,657	50,380	74	61	82.00	486.95	67.42	7.47	7.29	66.30	64.66	8.00
July 2011	101,909	100,332	130	107	82.00	935.48	51.62	14.27	14.05	68.09	67.03	9.00
August 2011	81,262	79,751	110	98	89.00	742.91	69.79	11.38	11.17	68.36	67.09	8.00
September 2011	25,556	24,607	36	28	78.00	225.05	175.55	3.70	3.56	70.97	68.34	8.00
October 2011	211	(533)	5	2	40.00	2.33	744.00	0.03	-	50.31	-	1.00
November 2011	9,016	8,246	24	19	79.00	95.08	650.67	1.16	1.06	52.68	48.18	5.00
December 2011	1,215	385	12	6	50.00	12.80	232.34	0.15	0.05	52.73	17.09	2.00
January 2012	6,189	5,304	31	13	42.00	40.63	151.79	0.77	0.68	84.63	74.17	3.00
February 2012	15,951	15,123	22	22	100.00	101.87	72.12	2.12	2.06	86.99	84.35	5.00
March 2012	83,155	82,062	71	62	87.00	520.25	226.26	10.35	10.44	88.80	89.62	8.00
TOTALS	**770,246**	**755,272**	**1,089**	**891**	**81.82**	**6,781.92**	**7,268.59**	**5.11**	**5.03**	**68.40**	**67.23**	**7.61**

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-48

Responding Witness: Lonnie E. Bellar

Q1-48. Referring to existing Riders CSR10 and CSR30:

a. For each customer (identified only by reference number) served under one of these riders, identify the applicable rider and the total MW of curtailable/interruptible load under contract.

b. State the number of months in which each customer in subpart (a) above has been continuously served under the existing rider or its predecessor(s).

c. For each customer identified in the subpart (a) above, provide the customer's firm contract demand if served under Option A.

d. For each customer identified in the subpart (a) above, provide the customer's Designated Curtailable Load if served under Option B.

A1-48. a.-d. See table below.

Customer	Rider	Contract Load	Months of Service	Firm Contract Demand
#1	CSR10	146 MW	more than 120	4.0 MW
#2	CSR10	2.3 MW	more than 120	0.2 MW
#3	CSR10	7.8 MW	15	3.5 MW

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-49

Responding Witness: Lonnie E. Bellar

Q1-49. Referring to existing Riders CSR10 and CSR30 and their predecessors:

a. For each customer (identified only by reference number) served under one of these riders, identify the date, time, and duration of each curtailment called by KU in the past 60 months?

b. For each curtailment referenced in the response to subpart (a) above, specify whether the curtailment was a system reliability event or a buy-through event, identify the MW of load curtailment requested, and identify the MW of load that failed to comply with the curtailment request.

c. For each buy-through curtailment identified in the response to subpart (b) above, specify whether the customer bought through the curtailment, the amount of buy-through energy purchased, the price paid for such buy-through energy, and the source (system supply or market) of the buy-through price.

A1-49. a-c. See attached.

Interruptions From 04/01/2007 To 03/31/2012

Company (1)	*Start Date/Time* (2)	*End Date/Time* (3)	*Offer Type* (4)	*Offer Price* (5)	*KW Hrs Taken* (6)	*Offer Accepted* (7)	*Hours* (8)
Customer #1	04/30/2007 15:40	04/30/2007 16:20	Physical Shutdown	0.00	0.00		0.67
Customer #1	07/03/2007 13:25	07/03/2007 18:00	Physical Shutdown	0.00	0.00		4.58
Customer #1	07/06/2007 12:40	07/06/2007 13:15	Physical Shutdown	0.00	0.00		0.58
Customer #1	07/09/2007 15:15	07/09/2007 18:00	Physical Shutdown	0.00	0.00		2.75
Customer #1	08/03/2007 20:10	08/03/2007 21:00	Physical Shutdown	0.00	0.00		0.83
Customer #1	08/15/2007 12:15	08/15/2007 18:35	Physical Shutdown	0.00	0.00		6.33
Customer #1	08/16/2007 17:32	08/16/2007 18:45	Physical Shutdown	0.00	0.00		1.22
Customer #1	10/11/2007 18:54	10/11/2007 20:34	Physical Shutdown	0.00	0.00		1.67
Customer #1	10/15/2007 18:20	10/15/2007 19:40	Physical Shutdown	0.00	0.00		1.33
Customer #1	10/19/2007 18:40	10/19/2007 19:45	Physical Shutdown	0.00	0.00		1.08
Customer #1	10/22/2007 11:30	10/22/2007 12:40	Physical Shutdown	0.00	0.00		1.17
Customer #1	10/24/2007 15:30	10/24/2007 16:55	Physical Shutdown	0.00	0.00		1.42
Customer #1	11/16/2007 19:15	11/16/2007 21:00	Physical Shutdown	0.00	0.00		1.75
Customer #1	11/21/2007 10:30	11/21/2007 11:30	Physical Shutdown	0.00	0.00		1.00
Customer #1	11/27/2007 18:10	11/27/2007 20:00	Physical Shutdown	0.00	0.00		1.83
Customer #1	11/28/2007 19:05	11/28/2007 19:45	Physical Shutdown	0.00	0.00		0.67
Customer #1	11/29/2007 18:50	11/29/2007 19:30	Physical Shutdown	0.00	0.00		0.67
Customer #1	12/11/2007 18:20	12/11/2007 19:00	Physical Shutdown	0.00	0.00		0.67
Customer #1	12/14/2007 17:45	12/14/2007 18:30	Physical Shutdown	0.00	0.00		0.75
Customer #1	01/10/2008 11:35	01/10/2008 13:15	Physical Shutdown	0.00	0.00		1.67
Customer #1	01/15/2008 18:20	01/15/2008 19:10	Physical Shutdown	0.00	0.00		0.83
Customer #1	01/23/2008 17:30	01/23/2008 18:30	Physical Shutdown	0.00	0.00		1.00
Customer #1	02/04/2008 10:52	02/04/2008 11:52	Physical Shutdown	0.00	0.00		1.00
Customer #1	02/06/2008 18:36	02/06/2008 19:10	Physical Shutdown	0.00	0.00		0.57
Customer #1	02/08/2008 14:40	02/08/2008 15:40	Physical Shutdown	0.00	0.00		1.00
Customer #1	02/27/2008 18:00	02/27/2008 20:00	Physical Shutdown	0.00	0.00		2.00
Customer #1	03/17/2008 19:15	03/17/2008 20:00	Physical Shutdown	0.00	0.00		0.75
Customer #1	03/19/2008 20:09	03/19/2008 21:40	Physical Shutdown	0.00	0.00		1.52
Customer #1	03/20/2008 19:48	03/20/2008 20:30	Physical Shutdown	0.00	0.00		0.70
Customer #1	03/26/2008 08:00	03/26/2008 12:30	Physical Shutdown	0.00	0.00		4.50
Customer #1	03/26/2008 14:10	03/26/2008 17:25	Physical Shutdown	0.00	0.00		3.25
Customer #1	03/28/2008 19:42	03/28/2008 21:12	Physical Shutdown	0.00	0.00		1.50
Customer #1	03/31/2008 19:00	03/31/2008 21:00	Physical Shutdown	0.00	0.00		2.00
Customer #1	04/04/2008 20:47	04/04/2008 21:25	Physical Shutdown	0.00	0.00		0.63
Customer #1	05/06/2008 20:20	05/06/2008 21:20	Physical Shutdown	0.00	0.00		1.00
Customer #1	06/11/2008 16:15	06/11/2008 17:45	Physical Shutdown	0.00	0.00		1.50
Customer #1	07/21/2008 11:30	07/21/2008 13:00	Physical Shutdown	0.00	0.00		1.50
Customer #1	07/22/2008 12:32	07/22/2008 14:02	Physical Shutdown	0.00	0.00		1.50
Customer #1	07/29/2008 11:10	07/29/2008 12:30	Physical Shutdown	0.00	0.00		1.33
Customer #1	08/06/2008 13:35	08/06/2008 14:20	Physical Shutdown	0.00	0.00		0.75
Customer #1	09/02/2008 14:50	09/02/2008 15:50	Physical Shutdown	0.00	0.00		1.00
Customer #1	09/03/2008 14:40	09/03/2008 15:40	Physical Shutdown	0.00	0.00		1.00
Customer #1	09/04/2008 19:17	09/04/2008 20:30	Physical Shutdown	0.00	0.00		1.22
Customer #1	09/11/2008 11:40	09/11/2008 12:50	Physical Shutdown	0.00	0.00		1.17
Customer #1	09/19/2008 12:45	09/19/2008 17:30	Physical Shutdown	0.00	0.00		4.75
Customer #1	09/23/2008 19:45	09/23/2008 20:50	Physical Shutdown	0.00	0.00		1.08
Customer #1	10/08/2008 09:25	10/08/2008 10:30	Physical Shutdown	0.00	0.00		1.08
Customer #1	10/10/2008 18:55	10/10/2008 19:55	Physical Shutdown	0.00	0.00		1.00
Customer #1	10/13/2008 18:55	10/13/2008 19:55	Physical Shutdown	0.00	0.00		1.00
Customer #1	10/15/2008 14:15	10/15/2008 16:00	Physical Shutdown	0.00	0.00		1.75

Interruptions From 04/01/2007 To 03/31/2012

Company (1)	*Start Date/Time* (2)	*End Date/Time* (3)	*Offer Type* (4)	*Offer Price* (5)	*KW Hrs Taken* (6)	*Offer Accepted* (7)	*Hours* (8)
Customer #1	11/19/2008 17:30	11/19/2008 21:30	Physical Shutdown	0.00	0.00		4.00
Customer #1	01/07/2009 17:42	01/07/2009 19:00	Physical Shutdown	0.00	0.00		1.30
Customer #1	01/08/2009 08:10	01/08/2009 09:50	Physical Shutdown	0.00	0.00		1.67
Customer #1	01/09/2009 08:00	01/09/2009 09:00	Physical Shutdown	0.00	0.00		1.00
Customer #1	01/12/2009 08:00	01/12/2009 08:36	Physical Shutdown	0.00	0.00		0.60
Customer #1	01/13/2009 17:40	01/13/2009 19:05	Physical Shutdown	0.00	0.00		1.42
Customer #1	01/15/2009 11:59	01/15/2009 14:30	Physical Shutdown	0.00	0.00		2.52
Customer #1	01/22/2009 08:10	01/22/2009 09:45	Physical Shutdown	0.00	0.00		1.58
Customer #1	01/23/2009 18:00	01/23/2009 19:15	Physical Shutdown	0.00	0.00		1.25
Customer #1	02/04/2009 18:00	02/04/2009 22:00	Physical Shutdown	0.00	0.00		4.00
Customer #1	02/16/2009 18:50	02/16/2009 19:50	Physical Shutdown	0.00	0.00		1.00
Customer #1	02/17/2009 08:00	02/17/2009 10:09	Physical Shutdown	0.00	0.00		2.15
Customer #1	03/02/2009 08:00	03/02/2009 13:50	Physical Shutdown	0.00	0.00		5.83
Customer #1	03/02/2009 17:30	03/02/2009 20:30		0.00	0.00		3.00
Customer #1	03/03/2009 08:00	03/03/2009 13:00	Physical Shutdown	0.00	0.00		5.00
Customer #1	03/11/2009 20:25	03/11/2009 21:35		0.00	0.00		1.17
Customer #1	03/12/2009 17:10	03/12/2009 20:15	Physical Shutdown	0.00	0.00		3.08
Customer #1	05/19/2009 16:41	05/19/2009 17:11	Physical Shutdown	0.00	0.00		0.50
Customer #1	06/02/2009 13:20	06/02/2009 15:02	Physical Shutdown	0.00	0.00		1.70
Customer #1	06/09/2009 13:40	06/09/2009 19:20		0.00	0.00		5.67
Customer #1	06/12/2009 14:15	06/12/2009 16:57	Physical Shutdown	0.00	0.00		2.70
Customer #1	06/15/2009 12:00	06/15/2009 17:52	Physical Shutdown	0.00	0.00		5.87
Customer #1	06/16/2009 12:35	06/16/2009 14:30	Physical Shutdown	0.00	0.00		1.92
Customer #1	06/30/2009 15:15	06/30/2009 18:00	Physical Shutdown	0.00	0.00		2.75
Customer #1	06/30/2009 19:00	06/30/2009 19:45	Physical Shutdown	0.00	0.00		0.75
Customer #1	07/08/2009 11:41	07/08/2009 14:00	Physical Shutdown	0.00	0.00		2.32
Customer #1	07/10/2009 15:30	07/10/2009 18:35	Physical Shutdown	0.00	0.00		3.08
Customer #1	07/16/2009 15:50	07/16/2009 18:30	Physical Shutdown	0.00	0.00		2.67
Customer #1	07/20/2009 18:15	07/20/2009 19:45	Physical Shutdown	0.00	0.00		1.50
Customer #1	07/23/2009 15:00	07/23/2009 18:00	Physical Shutdown	0.00	0.00		3.00
Customer #1	07/24/2009 14:00	07/24/2009 15:30	Physical Shutdown	0.00	0.00		1.50
Customer #1	08/05/2009 16:58	08/05/2009 18:35	Physical Shutdown	0.00	0.00		1.62
Customer #1	08/07/2009 13:35	08/07/2009 15:00	Physical Shutdown	0.00	0.00		1.42
Customer #1	08/10/2009 12:42	08/10/2009 14:20	Physical Shutdown	0.00	0.00		1.63
Customer #1	08/11/2009 12:45	08/11/2009 15:45	Physical Shutdown	0.00	0.00		3.00
Customer #1	08/11/2009 18:30	08/11/2009 21:00	Physical Shutdown	0.00	0.00		2.50
Customer #1	08/12/2009 14:02	08/12/2009 19:35	Physical Shutdown	0.00	0.00		5.55
Customer #1	08/13/2009 13:55	08/13/2009 19:30	Physical Shutdown	0.00	0.00		5.58
Customer #1	08/17/2009 15:20	08/17/2009 16:00	Physical Shutdown	0.00	0.00		0.67
Customer #1	08/18/2009 13:00	08/18/2009 15:00	Physical Shutdown	0.00	0.00		2.00
Customer #1	09/14/2009 15:10	09/14/2009 17:30	Physical Shutdown	0.00	0.00		2.33
Customer #1	11/05/2009 18:32	11/05/2009 19:12	Physical Shutdown	0.00	0.00		0.67
Customer #1	11/18/2009 20:35	11/18/2009 21:35	Physical Shutdown	0.00	0.00		1.00
Customer #1	12/10/2009 18:48	12/10/2009 21:13	Physical Shutdown	0.00	0.00		2.42
Customer #1	12/15/2009 19:00	12/15/2009 20:45	Physical Shutdown	0.00	0.00		1.75
Customer #1	12/17/2009 08:00	12/17/2009 08:50	Physical Shutdown	0.00	0.00		0.83
Customer #1	01/04/2010 18:15	01/04/2010 19:00	Physical Shutdown	0.00	0.00		0.75
Customer #1	01/06/2010 09:05	01/06/2010 10:05	Physical Shutdown	0.00	0.00		1.00
Customer #1	01/28/2010 18:45	01/28/2010 19:35	Physical Shutdown	0.00	0.00		0.83
Customer #1	02/15/2010 10:15	02/15/2010 12:15	Physical Shutdown	0.00	0.00		2.00

Interruptions From 04/01/2007 To 03/31/2012

Company (1)	*Start Date/Time* (2)	*End Date/Time* (3)	*Offer Type* (4)	*Offer Price* (5)	*KW Hrs Taken* (6)	*Offer Accepted* (7)	*Hours* (8)
Customer #1	02/16/2010 17:35	02/16/2010 21:30	Physical Shutdown	0.00	0.00		3.92
Customer #1	02/17/2010 18:50	02/17/2010 20:00	Physical Shutdown	0.00	0.00		1.17
Customer #1	02/18/2010 10:10	02/18/2010 11:35	Physical Shutdown	0.00	0.00		1.42
Customer #1	02/23/2010 10:20	02/23/2010 14:00	Physical Shutdown	0.00	0.00		3.67
Customer #1	03/02/2010 17:52	03/02/2010 20:50	Physical Shutdown	0.00	0.00		2.97
Customer #1	03/03/2010 18:45	03/03/2010 20:12	Physical Shutdown	0.00	0.00		1.45
Customer #1	03/15/2010 18:30	03/15/2010 20:58	Physical Shutdown	0.00	0.00		2.47
Customer #1	03/16/2010 19:20	03/16/2010 20:30	Physical Shutdown	0.00	0.00		1.17
Customer #1	03/23/2010 19:20	03/23/2010 21:00	Physical Shutdown	0.00	0.00		1.67
Customer #1	03/24/2010 19:20	03/24/2010 21:15	Physical Shutdown	0.00	0.00		1.92
Customer #1	03/25/2010 17:45	03/25/2010 20:45	Physical Shutdown	0.00	0.00		3.00
Customer #1	03/31/2010 19:00	03/31/2010 20:15	Physical Shutdown	0.00	0.00		1.25
Customer #1	06/22/2010 20:00	06/22/2010 21:30	Physical Shutdown	0.00	0.00		1.50
Customer #1	11/04/2010 06:07	11/04/2010 07:20	Physical Curtailment	0.00	0.00		1.22
Customer #1	12/14/2010 06:30	12/14/2010 08:05	Physical Curtailment	0.00	0.00		1.58
Customer #1	06/07/2011 13:00	06/07/2011 19:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #1	06/08/2011 11:00	06/08/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #1	06/09/2011 11:00	06/09/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #1	07/11/2011 12:00	07/11/2011 19:00	Buy Through Curtailment	0.00	0.00		7.00
Customer #1	07/12/2011 12:15	07/12/2011 16:00	Buy Through Curtailment	0.00	0.00		3.75
Customer #1	07/18/2011 13:00	07/18/2011 19:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #1	07/20/2011 11:00	07/20/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #1	07/21/2011 10:00	07/21/2011 13:15	Buy Through Curtailment	0.00	0.00		3.25
Customer #1	07/21/2011 13:15	07/21/2011 14:05	Physical Curtailment	0.00	0.00		0.83
Customer #1	07/21/2011 14:05	07/21/2011 20:05	Buy Through Curtailment	0.00	0.00		6.00
Customer #1	07/22/2011 11:00	07/22/2011 18:00	Buy Through Curtailment	0.00	0.00		7.00
Customer #1	07/27/2011 10:00	07/27/2011 12:00	Buy Through Curtailment	0.00	0.00		2.00
Customer #1	08/01/2011 11:00	08/01/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #1	08/02/2011 11:00	08/02/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #1	08/08/2011 12:00	08/08/2011 18:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #1	09/01/2011 12:00	09/01/2011 19:00	Buy Through Curtailment	0.00	0.00	YES	7.00
Customer #1	09/02/2011 12:00	09/02/2011 19:00	Buy Through Curtailment	0.00	0.00	YES	7.00
Customer #2	05/10/2007 13:00	05/10/2007 21:00	Block Offer	105.00	0.00	NO	8.00
Customer #2	07/09/2007 10:00	07/09/2007 15:00	Block Offer	140.00	0.00	NO	5.00
Customer #2	07/10/2007 10:00	07/10/2007 15:00	Block Offer	93.00	0.00	NO	5.00
Customer #2	07/19/2007 10:00	07/19/2007 15:00	Block Offer	95.00	0.00	NO	5.00
Customer #2	08/06/2007 12:00	08/06/2007 15:00	Block Offer	107.00	0.00	NO	3.00
Customer #2	08/07/2007 12:00	08/07/2007 15:00	Block Offer	142.00	0.00	NO	3.00
Customer #2	08/08/2007 12:00	08/08/2007 15:00	Block Offer	130.00	0.00	NO	3.00
Customer #2	08/09/2007 12:00	08/09/2007 15:00	Block Offer	163.00	0.00	NO	3.00
Customer #2	08/10/2007 12:00	08/10/2007 15:00	Block Offer	102.00	0.00	NO	3.00
Customer #2	08/13/2007 12:00	08/13/2007 15:00	Block Offer	115.00	0.00	NO	3.00
Customer #2	08/14/2007 11:00	08/14/2007 15:00	Block Offer	97.00	0.00	NO	4.00
Customer #2	08/15/2007 12:15	08/15/2007 15:00	Physical Shutdown	0.00	0.00		2.75
Customer #2	08/16/2007 12:00	08/16/2007 15:00	Block Offer	107.00	0.00	NO	3.00
Customer #2	08/23/2007 11:00	08/23/2007 20:00	Block Offer	130.00	0.00	NO	9.00
Customer #2	08/24/2007 12:00	08/24/2007 17:00	Block Offer	100.00	0.00	NO	5.00
Customer #2	06/09/2008 12:00	06/09/2008 18:00	Block Offer	160.00	0.00	NO	6.00
Customer #2	07/29/2008 12:00	07/29/2008 17:00	Block Offer	150.00	3000.00	YES	5.00
Customer #2	08/01/2008 11:00	08/01/2008 13:00	Block Offer	135.00	3000.00	YES	2.00

Interruptions From 04/01/2007 To 03/31/2012

Company (1)	*Start Date/Time* (2)	*End Date/Time* (3)	*Offer Type* (4)	*Offer Price* (5)	*KW Hrs Taken* (6)	*Offer Accepted* (7)	*Hours* (8)
Customer #2	08/01/2008 13:20	08/01/2008 18:00	Physical Shutdown	0.00	0.00		4.67
Customer #2	08/04/2008 12:00	08/04/2008 20:00	Block Offer	115.00	3000.00	YES	8.00
Customer #2	08/05/2008 11:00	08/05/2008 19:00	Block Offer	120.00	3000.00	YES	8.00
Customer #2	08/20/2008 12:00	08/20/2008 19:00	Block Offer	78.00	3000.00	YES	7.00
Customer #2	08/21/2008 11:00	08/21/2008 18:00	Block Offer	79.50	3000.00	YES	7.00
Customer #2	09/02/2008 12:00	09/02/2008 20:00	Block Offer	120.00	0.00	NO	8.00
Customer #2	09/03/2008 12:00	09/03/2008 20:00	Block Offer	92.00	0.00	NO	8.00
Customer #2	01/15/2009 07:00	01/15/2009 21:00	Block Offer	70.00	0.00	NO	14.00
Customer #2	01/16/2009 07:00	01/16/2009 21:00	Block Offer	70.00	0.00	NO	14.00
Customer #2	06/02/2009 13:00	06/02/2009 17:00	Block Offer	44.00	0.00	NO	4.00
Customer #2	06/17/2009 13:00	06/17/2009 17:00	Block Offer	0.00	0.00	NO	4.00
Customer #2	06/23/2009 13:00	06/23/2009 18:00	Block Offer	62.00	0.00	NO	5.00
Customer #2	06/24/2009 13:00	06/24/2009 18:00	Block Offer	68.00	0.00	NO	5.00
Customer #2	06/25/2009 13:00	06/25/2009 18:00	Block Offer	62.00	0.00	NO	5.00
Customer #2	08/17/2009 10:00	08/17/2009 18:00	Block Offer	53.00	0.00	NO	8.00
Customer #2	01/05/2010 08:00	01/05/2010 12:00	Block Offer	76.00	0.00	NO	4.00
Customer #2	01/06/2010 07:00	01/06/2010 12:00	Block Offer	78.00	0.00	NO	5.00
Customer #2	01/08/2010 06:00	01/08/2010 16:00	Block Offer	87.00	0.00	NO	10.00
Customer #2	01/11/2010 07:00	01/11/2010 16:00	Physical Shutdown	0.00	0.00		9.00
Customer #2	01/12/2010 08:00	01/12/2010 12:00	Block Offer	85.00	0.00	NO	4.00
Customer #2	01/13/2010 07:00	01/13/2010 11:00	Block Offer	70.00	0.00	NO	4.00
Customer #2	05/26/2010 14:45	05/26/2010 16:00	Physical Shutdown	0.00	0.00		1.25
Customer #2	06/14/2010 12:00	06/14/2010 15:00	Block Offer	82.00	0.00	NO	3.00
Customer #2	06/15/2010 13:30	06/15/2010 17:30	Physical Shutdown	0.00	0.00		4.00
Customer #2	12/14/2010 07:25	12/14/2010 08:10	Physical Curtailment	0.00	0.00		0.75
Customer #2	06/07/2011 13:00	06/07/2011 19:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #2	06/08/2011 11:00	06/08/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #2	06/09/2011 11:00	06/09/2011 15:00	Buy Through Curtailment	0.00	0.00		4.00
Customer #2	07/11/2011 12:00	07/11/2011 15:00	Buy Through Curtailment	0.00	0.00		3.00
Customer #2	07/12/2011 12:20	07/12/2011 15:00	Buy Through Curtailment	0.00	0.00		2.67
Customer #2	07/18/2011 13:00	07/18/2011 19:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #2	07/20/2011 11:00	07/20/2011 16:00	Buy Through Curtailment	0.00	0.00		5.00
Customer #2	07/21/2011 10:00	07/21/2011 16:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #2	07/22/2011 11:00	07/22/2011 16:00	Buy Through Curtailment	0.00	0.00		5.00
Customer #2	07/27/2011 10:00	07/27/2011 15:00	Buy Through Curtailment	0.00	0.00		5.00
Customer #2	07/28/2011 09:00	07/28/2011 15:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #2	07/29/2011 11:00	07/29/2011 15:00	Buy Through Curtailment	0.00	0.00		4.00
Customer #2	08/01/2011 11:00	08/01/2011 16:00	Buy Through Curtailment	0.00	0.00		5.00
Customer #2	08/02/2011 11:00	08/02/2011 16:00	Buy Through Curtailment	0.00	0.00		5.00
Customer #2	08/08/2011 12:00	08/08/2011 16:00	Buy Through Curtailment	0.00	0.00		4.00
Customer #2	09/01/2011 12:00	09/01/2011 19:00	Buy Through Curtailment	0.00	0.00	NO	7.00
Customer #3	06/07/2011 13:00	06/07/2011 19:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #3	06/08/2011 11:00	06/08/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #3	06/09/2011 11:00	06/09/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #3	07/11/2011 12:00	07/11/2011 19:00	Buy Through Curtailment	0.00	0.00		7.00
Customer #3	07/12/2011 12:07	07/12/2011 16:00	Buy Through Curtailment	0.00	0.00		3.88
Customer #3	07/18/2011 13:00	07/18/2011 19:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #3	07/20/2011 11:00	07/20/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #3	07/21/2011 10:00	07/21/2011 13:15	Buy Through Curtailment	0.00	0.00		3.25
Customer #3	07/21/2011 13:15	07/21/2011 14:05	Physical Curtailment	0.00	0.00		0.83

Interruptions From 04/01/2007 To 03/31/2012

Company (1)	*Start Date/Time* (2)	*End Date/Time* (3)	*Offer Type* (4)	*Offer Price* (5)	*KW Hrs Taken* (6)	*Offer Accepted* (7)	*Hours* (8)
Customer #3	07/21/2011 14:05	07/21/2011 20:10	Buy Through Curtailment	0.00	0.00		6.08
Customer #3	07/22/2011 11:00	07/22/2011 18:00	Buy Through Curtailment	0.00	0.00		7.00
Customer #3	07/27/2011 10:00	07/27/2011 19:00	Buy Through Curtailment	0.00	0.00		9.00
Customer #3	07/28/2011 10:00	07/28/2011 20:00	Buy Through Curtailment	0.00	0.00		10.00
Customer #3	07/29/2011 11:00	07/29/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #3	08/01/2011 11:00	08/01/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #3	08/02/2011 11:00	08/02/2011 19:00	Buy Through Curtailment	0.00	0.00		8.00
Customer #3	08/08/2011 12:00	08/08/2011 18:00	Buy Through Curtailment	0.00	0.00		6.00
Customer #3	09/01/2011 12:00	09/01/2011 19:00	Buy Through Curtailment	0.00	0.00	YES	7.00
Customer #3	09/02/2011 12:00	09/02/2011 19:00	Buy Through Curtailment	0.00	0.00	YES	7.00
							763.91

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-50

Responding Witness: Lonnie E. Bellar

Q1-50. Please provide a timeline for the last 10 years showing by year each curtailable/interruptible rate or rider offered by KU, the number of customers served under each rate/rider, and the total MW of interruptible or curtailable load served under each curtailable/interruptible rate/rider.

A1-50. See table below.

Start	End		No. Customers	Maximum Curtailable MW
3/1/2000	7/1/2004	CSR		
		75 or 100 hrs	0	0
		150 or 200 hrs	2	148.3
7/1/2004	2/6/2009	CSR1	1	2.3
		CSR2	0	
		CSR3	1	146.0
2/6/2009	8/1/2010	CSR1	1	2.3
		CSR2	0	0
		CSR3	1	146.0
8/1/2010	current	CSR10	3	156.1
		CSR30	0	0

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KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012**

Question No. 1-51

Responding Witness: Lonnie E. Bellar

Q1-51. Please identify all reports, studies, and/or analyses conducted by on behalf of KU or its parent company in the past 5 years related in total or in part to retail interruptible or curtailable electric service in Kentucky.

A1-51. There are no formal studies or analysis responsive to this request.

The Companies did perform some informal analysis that consisted of several computer simulations. This analysis, conducted in April 2012, is summarized below and the outputs of the computer simulations are provided in two attachments.

First, the Companies used the PROSYM production cost model to compare the impact of CSR customers on production costs to the impact (on production costs) of the same amount of CT capacity. The analysis assumed CSR customers could only be physically curtailed after all of the Companies' other resources had been exhausted (i.e., in the event of a 'system reliability event'). The results from this analysis are as follows:

1. For the 2012 calendar year, the modeled reduction in production costs by CSR customers was $57K.
2. When the CSR capacity is replaced by a like-amount of capacity equivalent to a Bluegrass CT (heat rate slightly worse than a Trimble CT; per the 2011 Resource Assessment, cost is $222/kW), modeled production costs are reduced by approximately $942K.
3. When the CSR capacity is replaced by a like-amount of capacity equivalent to a 'new' CT capacity (fully dispatchable; heat rate is better than a Trimble CT; per the 2011 IRP, cost is $798/kW), production costs are reduced by $1,443K.

Utilizing these results (and with a 10% fixed charge rate) show, CSR capacity ranges in value from approximately $0.11/kW-month to $0.26/kW-month (57/942

* $222/kW * 10% / 12 months = $0.11/kW-month; 57/1,443 * $798/kW * 10% / 12 months = $0.26/kW-month). Because of the limited ability to physically curtail the CSR customers, the impact of the CSR on production costs is small.

Second, based on the 2012 load forecast, reserve margin in 2012 is expected to be approximately 17.5% without the Bluegrass CTs and approximately 24.5% with the Bluegrass CTs. CSR capacity represents approximately 1.5% of reserve margin. Based on the results of the 2011 IRP Optimal Reserve Margin study, fully dispatchable CT capacity that would increase reserve margin from 17.5% to 19% would be valued between $4.00 and $6.00/kW-month (in the target range, 15-17%, the value would be that of a new CT – approximately $6.65/kW-year). To increase reserve margin from 24.5% to 26%, the value (for fully dispatchable CT capacity) would be $0.50 to $0.60/kW-month.

CSR Results (No OSS)

With Purchases Commit =5

	Prod. Costs ($000)	Delta to Base ($000)	Scen. 02 Base (Delta)			
01-w CSR	994,407	-	(118)			
02-w/o CSR	994,525	118	-			
03-TC CT	992,920	(1,487)	(1,606)	7.4%	58.78211	62.39154
04-BG CT	994,029	(378)	(497)	23.8%	52.87574	

No Purchases Case

	Prod. Costs ($000)	Delta to Base ($000)	Scen. 02 Base (Delta)			
05-w CSR	993,876	-	(57)			
06-w/o CSR	993,932	57	-			
07-TC CT	992,490	(1,386)	(1,442)	3.9%	31.30618	33.22849
08-BG CT	993,601	(275)	(331)	17.1%	37.91715	

No Purchases/No CT VO&M Case

	Prod. Costs ($000)	Delta to Base ($000)	Scen. 02 Base (Delta)			
09-w CSR	991,523	-	(57)			
10-w/o CSR	991,581	57	-			
11-TC CT	990,137	(1,386)	(1,443)	4.0%	31.56698	33.5053
12-BG CT	990,638	(885)	(942)	6.1%	13.45376	

No Purchases Case (including CT VOM in Prod Costs)

	Prod. Costs ($000)	Delta to Base ($000)	Scen. 02 Base (Delta)			
13-w CSR	1,005,116	-	(128)			
14-w/o CSR	1,005,244	128	-			
15-TC CT	1,001,735	(3,381)	(3,510)	3.7%	29.15167	30.94169
16-BG CT	1,003,228	(1,888)	(2,017)	6.4%	14.11446	

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,996	1,730	4,988	-	2,693	6	202	-	-	208	88,408
2012	2	72,523	1,527	4,780	-	2,519	5	168	-	-	173	81,350
2012	3	71,868	1,411	3,795	-	2,693	5	144	-	-	149	79,767
2012	4	64,231	1,285	3,443	-	2,606	4	137	-	-	141	71,566
2012	5	68,340	1,277	3,765	-	2,693	4	152	-	-	156	76,075
2012	6	78,814	1,969	4,789	-	2,606	6	189	-	-	195	88,178
2012	7	87,968	2,043	6,412	-	2,693	6	208	-	-	215	99,116
2012	8	89,481	2,204	6,689	-	2,693	7	213	-	-	220	101,066
2012	9	69,609	1,660	4,790	-	2,606	5	159	-	-	164	78,665
2012	10	65,258	1,591	4,416	-	2,693	5	156	-	-	161	73,957
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,389	1,729	5,739	-	2,693	6	192	-	-	199	92,550

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	282
2012	2	970
2012	3	485
2012	4	357
2012	5	356
2012	6	541
2012	7	1,520
2012	8	1,654
2012	9	472
2012	10	278
2012	11	-
2012	12	528

Year	Month	Starts	
2012	1	26	$ 162
2012	2	26	$ 164
2012	3	14	$ 87
2012	4	7	$ 44
2012	5	9	$ 58
2012	6	48	$ 302
2012	7	112	$ 700
2012	8	119	$ 747
2012	9	52	$ 325
2012	10	28	$ 175
2012	11	4	$ 23
2012	12	36	$ 224

$ 6,266.67

2012	1	87,964
2012	2	80,216
2012	3	79,194
2012	4	71,165
2012	5	75,661
2012	6	87,335
2012	7	96,896
2012	8	98,665
2012	9	77,869
2012	10	73,504
2012	11	74,141
2012	12	91,798
		994,407

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	79,010	1,730	4,966	-	2,693	6	202	-	-	208	88,399
2012	2	72,523	1,527	4,780	-	2,519	5	168	-	-	173	81,350
2012	3	71,868	1,411	3,795	-	2,693	5	144	-	-	149	79,767
2012	4	64,231	1,285	3,443	-	2,606	4	137	-	-	141	71,566
2012	5	68,340	1,277	3,765	-	2,693	4	152	-	-	156	76,075
2012	6	78,829	1,969	4,795	-	2,606	6	189	-	-	195	88,198
2012	7	88,012	2,045	6,406	-	2,693	6	208	-	-	214	99,156
2012	8	89,506	2,204	6,713	-	2,693	7	213	-	-	220	101,116
2012	9	69,609	1,660	4,790	-	2,606	5	159	-	-	164	78,665
2012	10	65,258	1,591	4,416	-	2,693	5	156	-	-	161	73,957
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,389	1,729	5,739	-	2,693	6	192	-	-	199	92,550

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	254
2012	2	970
2012	3	485
2012	4	357
2012	5	356
2012	6	546
2012	7	1,503
2012	8	1,677
2012	9	472
2012	10	278
2012	11	-
2012	12	528

Year	Month	Starts	
2012	1	26	$ 162
2012	2	26	$ 164
2012	3	14	$ 87
2012	4	7	$ 44
2012	5	9	$ 58
2012	6	48	$ 302
2012	7	112	$ 700
2012	8	119	$ 747
2012	9	52	$ 325
2012	10	28	$ 175
2012	11	4	$ 23
2012	12	36	$ 224
$ 6,266.67			

2012	1	87,983
2012	2	80,216
2012	3	79,194
2012	4	71,165
2012	5	75,661
2012	6	87,350
2012	7	96,953
2012	8	98,691
2012	9	77,869
2012	10	73,504
2012	11	74,141
2012	12	91,798
		994,525

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,867	1,720	4,943	-	2,693	6	201	-	-	208	88,224
2012	2	72,459	1,528	4,504	-	2,519	5	166	-	-	171	81,010
2012	3	71,879	1,429	3,501	-	2,693	4	143	-	-	148	79,502
2012	4	64,063	1,260	3,201	-	2,606	4	136	-	-	140	71,130
2012	5	68,225	1,457	3,516	-	2,693	4	149	-	-	153	75,892
2012	6	78,673	1,906	4,619	-	2,606	6	185	-	-	191	87,804
2012	7	87,851	2,101	6,059	-	2,693	6	206	-	-	212	98,705
2012	8	89,375	2,158	6,260	-	2,693	7	211	-	-	217	100,487
2012	9	69,561	1,623	4,625	-	2,606	5	158	-	-	164	78,416
2012	10	65,241	1,658	4,255	-	2,693	5	155	-	-	160	73,847
2012	11	65,703	1,438	4,406	-	2,606	5	148	-	-	153	74,153
2012	12	82,218	1,757	5,679	-	2,693	7	193	-	-	199	92,348

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	211
2012	2	717
2012	3	310
2012	4	228
2012	5	226
2012	6	444
2012	7	1,241
2012	8	1,271
2012	9	333
2012	10	139
2012	11	-
2012	12	442

Year	Month	Starts	
2012	1	26	$ 160
2012	2	27	$ 171
2012	3	15	$ 96
2012	4	8	$ 52
2012	5	10	$ 62
2012	6	54	$ 340
2012	7	108	$ 678
2012	8	113	$ 708
2012	9	53	$ 331
2012	10	27	$ 167
2012	11	3	$ 17
2012	12	40	$ 253
$ 6,266.67			

2012	1	87,853
2012	2	80,122
2012	3	79,095
2012	4	70,850
2012	5	75,603
2012	6	87,021
2012	7	96,785
2012	8	98,508
2012	9	77,751
2012	10	73,542
2012	11	74,136
2012	12	91,652
		992,920

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	79,011	1,730	4,930	-	2,693	6	202	-	-	209	88,364
2012	2	72,492	1,537	4,586	-	2,519	5	168	-	-	173	81,134
2012	3	71,933	1,414	3,582	-	2,693	5	145	-	-	149	79,623
2012	4	64,211	1,284	3,312	-	2,606	4	137	-	-	141	71,413
2012	5	68,336	1,276	3,653	-	2,693	4	152	-	-	156	75,959
2012	6	78,766	1,978	4,659	-	2,606	6	187	-	-	193	88,009
2012	7	87,935	2,053	6,180	-	2,693	6	208	-	-	214	98,861
2012	8	89,428	2,207	6,368	-	2,693	7	214	-	-	220	100,696
2012	9	69,563	1,677	4,667	-	2,606	5	159	-	-	164	78,514
2012	10	65,222	1,593	4,296	-	2,693	5	156	-	-	161	73,805
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,369	1,727	5,663	-	2,693	6	193	-	-	199	92,452

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	219
2012	2	790
2012	3	346
2012	4	240
2012	5	243
2012	6	451
2012	7	1,301
2012	8	1,329
2012	9	351
2012	10	154
2012	11	-
2012	12	458

Year	Month	Starts	
2012	1	26	$ 162
2012	2	28	$ 177
2012	3	14	$ 87
2012	4	7	$ 44
2012	5	9	$ 58
2012	6	53	$ 333
2012	7	114	$ 713
2012	8	120	$ 753
2012	9	53	$ 331
2012	10	29	$ 181
2012	11	4	$ 23
2012	12	35	$ 222
$ 6,266.67			

2012	1	87,983
2012	2	80,168
2012	3	79,189
2012	4	71,130
2012	5	75,658
2012	6	87,225
2012	7	96,847
2012	8	98,614
2012	9	77,833
2012	10	73,469
2012	11	74,141
2012	12	91,772
		994,029

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,996	1,730	4,988	-	2,693	6	202	-	-	208	88,408
2012	2	72,510	1,527	4,898	-	2,519	5	168	-	-	174	81,455
2012	3	71,841	1,411	3,848	-	2,693	5	145	-	-	149	79,793
2012	4	64,231	1,285	3,443	-	2,606	4	137	-	-	141	71,566
2012	5	68,340	1,277	3,765	-	2,693	4	152	-	-	156	76,075
2012	6	78,797	1,969	4,832	-	2,606	6	189	-	-	195	88,203
2012	7	87,785	2,043	6,543	-	2,693	6	208	-	-	215	99,065
2012	8	89,341	2,207	6,883	-	2,693	7	213	-	-	220	101,124
2012	9	69,606	1,660	4,842	-	2,606	5	159	-	-	164	78,714
2012	10	65,258	1,591	4,416	-	2,693	5	156	-	-	161	73,957
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,357	1,729	5,814	-	2,693	6	193	-	-	199	92,593

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	282
2012	2	1,103
2012	3	547
2012	4	357
2012	5	356
2012	6	591
2012	7	1,686
2012	8	1,883
2012	9	531
2012	10	278
2012	11	-
2012	12	616

Year	Month	Starts		
2012	1	26	$	162
2012	2	26	$	164
2012	3	14	$	87
2012	4	7	$	44
2012	5	9	$	58
2012	6	48	$	302
2012	7	112	$	700
2012	8	119	$	747
2012	9	52	$	325
2012	10	28	$	175
2012	11	4	$	23
2012	12	36	$	224
$ 6,266.67				

2012	1	87,964
2012	2	80,188
2012	3	79,159
2012	4	71,165
2012	5	75,661
2012	6	87,310
2012	7	96,679
2012	8	98,494
2012	9	77,858
2012	10	73,504
2012	11	74,141
2012	12	91,753
		993,876

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	79,007	1,730	5,005	-	2,693	6	202	-	-	209	88,435
2012	2	72,510	1,527	4,898	-	2,519	5	168	-	-	174	81,455
2012	3	71,841	1,411	3,848	-	2,693	5	145	-	-	149	79,793
2012	4	64,231	1,285	3,443	-	2,606	4	137	-	-	141	71,566
2012	5	68,340	1,277	3,765	-	2,693	4	152	-	-	156	76,075
2012	6	78,815	1,968	4,841	-	2,606	6	189	-	-	195	88,231
2012	7	87,804	2,043	6,576	-	2,693	6	208	-	-	215	99,116
2012	8	89,349	2,207	6,897	-	2,693	7	213	-	-	220	101,146
2012	9	69,606	1,660	4,842	-	2,606	5	159	-	-	164	78,714
2012	10	65,258	1,591	4,416	-	2,693	5	156	-	-	161	73,957
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,357	1,729	5,814	-	2,693	6	193	-	-	199	92,593

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	299
2012	2	1,103
2012	3	547
2012	4	357
2012	5	356
2012	6	599
2012	7	1,718
2012	8	1,897
2012	9	531
2012	10	278
2012	11	-
2012	12	616

Year	Month	Starts	
2012	1	26	$ 162
2012	2	26	$ 164
2012	3	14	$ 87
2012	4	7	$ 44
2012	5	9	$ 58
2012	6	48	$ 302
2012	7	112	$ 700
2012	8	119	$ 747
2012	9	52	$ 325
2012	10	28	$ 175
2012	11	4	$ 23
2012	12	36	$ 224
$ 6,266.67			

2012	1	87,974
2012	2	80,188
2012	3	79,159
2012	4	71,165
2012	5	75,661
2012	6	87,329
2012	7	96,697
2012	8	98,502
2012	9	77,858
2012	10	73,504
2012	11	74,141
2012	12	91,753
		993,932

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,864	1,720	4,982	-	2,693	6	201	-	-	208	88,260
2012	2	72,456	1,528	4,548	-	2,519	5	166	-	-	171	81,052
2012	3	71,857	1,429	3,557	-	2,693	4	144	-	-	148	79,536
2012	4	64,063	1,260	3,201	-	2,606	4	136	-	-	140	71,130
2012	5	68,225	1,457	3,516	-	2,693	4	149	-	-	153	75,892
2012	6	78,672	1,906	4,638	-	2,606	6	185	-	-	191	87,822
2012	7	87,690	2,102	6,187	-	2,693	6	206	-	-	212	98,672
2012	8	89,257	2,162	6,452	-	2,693	7	211	-	-	218	100,564
2012	9	69,561	1,623	4,652	-	2,606	5	159	-	-	164	78,443
2012	10	65,241	1,658	4,255	-	2,693	5	155	-	-	160	73,847
2012	11	65,703	1,438	4,406	-	2,606	5	148	-	-	153	74,153
2012	12	82,194	1,756	5,723	-	2,693	7	193	-	-	199	92,366

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	255
2012	2	767
2012	3	374
2012	4	228
2012	5	226
2012	6	465
2012	7	1,400
2012	8	1,494
2012	9	367
2012	10	139
2012	11	-
2012	12	496

Year	Month	Starts	
2012	1	26	$ 160
2012	2	27	$ 171
2012	3	15	$ 96
2012	4	8	$ 52
2012	5	10	$ 62
2012	6	54	$ 340
2012	7	108	$ 678
2012	8	113	$ 708
2012	9	53	$ 331
2012	10	27	$ 167
2012	11	3	$ 17
2012	12	40	$ 253
$ 6,266.67			

2012	1	87,844
2012	2	80,114
2012	3	79,065
2012	4	70,850
2012	5	75,603
2012	6	87,018
2012	7	96,594
2012	8	98,362
2012	9	77,746
2012	10	73,542
2012	11	74,136
2012	12	91,617
		992,490

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	79,008	1,730	4,969	-	2,693	6	202	-	-	209	88,399
2012	2	72,489	1,536	4,631	-	2,519	5	168	-	-	173	81,176
2012	3	71,914	1,414	3,635	-	2,693	5	145	-	-	149	79,656
2012	4	64,211	1,284	3,312	-	2,606	4	137	-	-	141	71,413
2012	5	68,336	1,276	3,653	-	2,693	4	152	-	-	156	75,959
2012	6	78,765	1,978	4,678	-	2,606	6	187	-	-	193	88,027
2012	7	87,773	2,053	6,309	-	2,693	6	208	-	-	215	98,828
2012	8	89,309	2,211	6,564	-	2,693	7	214	-	-	221	100,777
2012	9	69,563	1,677	4,699	-	2,606	5	159	-	-	164	78,546
2012	10	65,222	1,593	4,296	-	2,693	5	156	-	-	161	73,805
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,346	1,726	5,712	-	2,693	6	193	-	-	199	92,478

Year	Month	Wheeling Costs ($000)
2012	1	-
2012	2	-
2012	3	-
2012	4	-
2012	5	-
2012	6	-
2012	7	-
2012	8	-
2012	9	-
2012	10	-
2012	11	-
2012	12	-

Year	Month	VOM Cost ($000)
2012	1	263
2012	2	839
2012	3	407
2012	4	240
2012	5	243
2012	6	472
2012	7	1,460
2012	8	1,558
2012	9	388
2012	10	154
2012	11	-
2012	12	517

Year	Month	Starts	
2012	1	26	$ 162
2012	2	28	$ 177
2012	3	14	$ 87
2012	4	7	$ 44
2012	5	9	$ 58
2012	6	53	$ 333
2012	7	114	$ 713
2012	8	120	$ 753
2012	9	53	$ 331
2012	10	29	$ 181
2012	11	4	$ 23
2012	12	35	$ 222
$ 6,266.67			

2012	1	87,974
2012	2	80,160
2012	3	79,161
2012	4	71,130
2012	5	75,658
2012	6	87,221
2012	7	96,655
2012	8	98,466
2012	9	77,826
2012	10	73,469
2012	11	74,141
2012	12	91,739
		993,601

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,720	1,398	4,744	-	2,693	6	201	-	-	207	87,556
2012	2	72,217	1,377	3,882	-	2,519	5	169	-	-	174	79,996
2012	3	71,710	1,249	3,285	-	2,693	5	142	-	-	146	78,938
2012	4	64,231	979	2,930	-	2,606	4	132	-	-	137	70,746
2012	5	68,107	1,256	3,458	-	2,693	4	145	-	-	149	75,513
2012	6	78,670	1,659	4,108	-	2,606	5	182	-	-	188	87,042
2012	7	87,689	1,351	4,802	-	2,693	6	204	-	-	210	96,536
2012	8	89,277	1,496	5,008	-	2,693	7	213	-	-	219	98,475
2012	9	69,523	1,255	4,320	-	2,606	5	159	-	-	165	77,705
2012	10	65,196	1,374	4,136	-	2,693	5	157	-	-	162	73,399
2012	11	65,655	1,490	4,378	-	2,606	5	152	-	-	156	74,129
2012	12	82,024	1,512	5,258	-	2,693	7	194	-	-	200	91,488

Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

2012	1	87,556
2012	2	79,996
2012	3	78,938
2012	4	70,746
2012	5	75,513
2012	6	87,042
2012	7	96,536
2012	8	98,475
2012	9	77,705
2012	10	73,399
2012	11	74,129
2012	12	91,488
		991,523

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,731	1,398	4,744	-	2,693	6	201	-	-	207	87,567
2012	2	72,217	1,377	3,882	-	2,519	5	169	-	-	174	79,996
2012	3	71,710	1,249	3,285	-	2,693	5	142	-	-	146	78,938
2012	4	64,231	979	2,930	-	2,606	4	132	-	-	137	70,746
2012	5	68,107	1,256	3,457	-	2,693	4	145	-	-	149	75,513
2012	6	78,687	1,659	4,108	-	2,606	5	183	-	-	188	87,060
2012	7	87,709	1,351	4,802	-	2,693	6	204	-	-	211	96,556
2012	8	89,286	1,496	5,008	-	2,693	7	213	-	-	219	98,483
2012	9	69,523	1,255	4,320	-	2,606	5	159	-	-	165	77,705
2012	10	65,196	1,374	4,136	-	2,693	5	157	-	-	162	73,399
2012	11	65,655	1,490	4,378	-	2,606	5	151	-	-	156	74,129
2012	12	82,024	1,512	5,258	-	2,693	7	194	-	-	200	91,488

Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

2012	1	87,567
2012	2	79,996
2012	3	78,938
2012	4	70,746
2012	5	75,513
2012	6	87,060
2012	7	96,556
2012	8	98,483
2012	9	77,705
2012	10	73,399
2012	11	74,129
2012	12	91,488
		991,581

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,707	1,397	4,746	-	2,693	6	200	-	-	206	87,543
2012	2	72,125	1,367	3,883	-	2,519	5	167	-	-	172	79,894
2012	3	71,696	1,263	3,193	-	2,693	4	140	-	-	145	78,845
2012	4	64,040	950	2,829	-	2,606	4	131	-	-	135	70,425
2012	5	67,946	1,257	3,317	-	2,693	4	143	-	-	147	75,213
2012	6	78,625	1,571	4,033	-	2,606	5	180	-	-	186	86,836
2012	7	87,576	1,422	4,745	-	2,693	6	202	-	-	209	96,436
2012	8	89,201	1,502	4,962	-	2,693	7	210	-	-	217	98,358
2012	9	69,468	1,298	4,299	-	2,606	5	159	-	-	164	77,671
2012	10	65,148	1,363	4,131	-	2,693	5	156	-	-	161	73,334
2012	11	65,647	1,489	4,424	-	2,606	5	153	-	-	158	74,167
2012	12	81,943	1,508	5,269	-	2,693	7	194	-	-	201	91,413

Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

2012	1	87,543
2012	2	79,894
2012	3	78,845
2012	4	70,425
2012	5	75,213
2012	6	86,836
2012	7	96,436
2012	8	98,358
2012	9	77,671
2012	10	73,334
2012	11	74,167
2012	12	91,413
		990,137

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,716	1,397	4,744	-	2,693	6	200	-	-	206	87,551
2012	2	72,178	1,376	3,892	-	2,519	5	167	-	-	173	79,965
2012	3	71,758	1,263	3,210	-	2,693	4	141	-	-	145	78,925
2012	4	64,137	949	2,830	-	2,606	4	130	-	-	134	70,523
2012	5	68,048	1,256	3,323	-	2,693	4	142	-	-	146	75,320
2012	6	78,658	1,571	4,059	-	2,606	5	181	-	-	186	86,895
2012	7	87,626	1,423	4,765	-	2,693	6	203	-	-	209	96,507
2012	8	89,226	1,502	4,994	-	2,693	7	211	-	-	218	98,415
2012	9	69,463	1,297	4,328	-	2,606	5	159	-	-	164	77,694
2012	10	65,144	1,318	4,146	-	2,693	5	157	-	-	162	73,301
2012	11	65,660	1,446	4,353	-	2,606	5	154	-	-	159	74,066
2012	12	82,033	1,508	5,243	-	2,693	7	195	-	-	201	91,477

Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

2012	1	87,551
2012	2	79,965
2012	3	78,925
2012	4	70,523
2012	5	75,320
2012	6	86,895
2012	7	96,507
2012	8	98,415
2012	9	77,694
2012	10	73,301
2012	11	74,066
2012	12	91,477
		990,638

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,996	1,730	4,988	-	2,693	6	202	-	-	208	88,408
2012	2	72,510	1,527	4,898	-	2,519	5	168	-	-	174	81,455
2012	3	71,841	1,411	3,848	-	2,693	5	145	-	-	149	79,793
2012	4	64,231	1,285	3,443	-	2,606	4	137	-	-	141	71,566
2012	5	68,340	1,277	3,765	-	2,693	4	152	-	-	156	76,075
2012	6	78,797	1,969	4,832	-	2,606	6	189	-	-	195	88,203
2012	7	87,785	2,043	6,543	-	2,693	6	208	-	-	215	99,065
2012	8	89,341	2,207	6,883	-	2,693	7	213	-	-	220	101,124
2012	9	69,606	1,660	4,842	-	2,606	5	159	-	-	164	78,714
2012	10	65,258	1,591	4,416	-	2,693	5	156	-	-	161	73,957
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,357	1,729	5,814	-	2,693	6	193	-	-	199	92,593

Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

2012	1	88,408
2012	2	81,455
2012	3	79,793
2012	4	71,566
2012	5	76,075
2012	6	88,203
2012	7	99,065
2012	8	101,124
2012	9	78,714
2012	10	73,957
2012	11	74,164
2012	12	92,593
		1,005,116

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	79,007	1,730	5,005	-	2,693	6	202	-	-	209	88,435
2012	2	72,510	1,527	4,898	-	2,519	5	168	-	-	174	81,455
2012	3	71,841	1,411	3,848	-	2,693	5	145	-	-	149	79,793
2012	4	64,231	1,285	3,443	-	2,606	4	137	-	-	141	71,566
2012	5	68,340	1,277	3,765	-	2,693	4	152	-	-	156	76,075
2012	6	78,815	1,968	4,841	-	2,606	6	189	-	-	195	88,231
2012	7	87,804	2,043	6,576	-	2,693	6	208	-	-	215	99,116
2012	8	89,349	2,207	6,897	-	2,693	7	213	-	-	220	101,146
2012	9	69,606	1,660	4,842	-	2,606	5	159	-	-	164	78,714
2012	10	65,258	1,591	4,416	-	2,693	5	156	-	-	161	73,957
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,357	1,729	5,814	-	2,693	6	193	-	-	199	92,593

Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

2012	1	88,435
2012	2	81,455
2012	3	79,793
2012	4	71,566
2012	5	76,075
2012	6	88,231
2012	7	99,116
2012	8	101,146
2012	9	78,714
2012	10	73,957
2012	11	74,164
2012	12	92,593
		1,005,244

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	78,864	1,720	4,982	-	2,693	6	201	-	-	208	88,260
2012	2	72,456	1,528	4,548	-	2,519	5	166	-	-	171	81,052
2012	3	71,857	1,429	3,557	-	2,693	4	144	-	-	148	79,536
2012	4	64,063	1,260	3,201	-	2,606	4	136	-	-	140	71,130
2012	5	68,225	1,457	3,516	-	2,693	4	149	-	-	153	75,892
2012	6	78,672	1,906	4,638	-	2,606	6	185	-	-	191	87,822
2012	7	87,690	2,102	6,187	-	2,693	6	206	-	-	212	98,672
2012	8	89,257	2,162	6,452	-	2,693	7	211	-	-	218	100,564
2012	9	69,561	1,623	4,652	-	2,606	5	159	-	-	164	78,443
2012	10	65,241	1,658	4,255	-	2,693	5	155	-	-	160	73,847
2012	11	65,703	1,438	4,406	-	2,606	5	148	-	-	153	74,153
2012	12	82,194	1,756	5,723	-	2,693	7	193	-	-	199	92,366

Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

2012	1	88,260
2012	2	81,052
2012	3	79,536
2012	4	71,130
2012	5	75,892
2012	6	87,822
2012	7	98,672
2012	8	100,564
2012	9	78,443
2012	10	73,847
2012	11	74,153
2012	12	92,366
		1,001,735

Year	Month	Fuel Cost ($000)	Start Cost ($000)	VOM Cost ($000)	Add Cost ($000)	Fixed O&M ($000)	SO2 Cost ($000)	NOx Cost ($000)	Hg Cost ($000)	CO2 Cost ($000)	Emiss Costs ($000)	Prod Costs ($000)
2012	1	79,008	1,730	4,969	-	2,693	6	202	-	-	209	88,399
2012	2	72,489	1,536	4,631	-	2,519	5	168	-	-	173	81,176
2012	3	71,914	1,414	3,635	-	2,693	5	145	-	-	149	79,656
2012	4	64,211	1,284	3,312	-	2,606	4	137	-	-	141	71,413
2012	5	68,336	1,276	3,653	-	2,693	4	152	-	-	156	75,959
2012	6	78,765	1,978	4,678	-	2,606	6	187	-	-	193	88,027
2012	7	87,773	2,053	6,309	-	2,693	6	208	-	-	215	98,828
2012	8	89,309	2,211	6,564	-	2,693	7	214	-	-	221	100,777
2012	9	69,563	1,677	4,699	-	2,606	5	159	-	-	164	78,546
2012	10	65,222	1,593	4,296	-	2,693	5	156	-	-	161	73,805
2012	11	65,711	1,444	4,403	-	2,606	5	148	-	-	153	74,164
2012	12	82,346	1,726	5,712	-	2,693	6	193	-	-	199	92,478

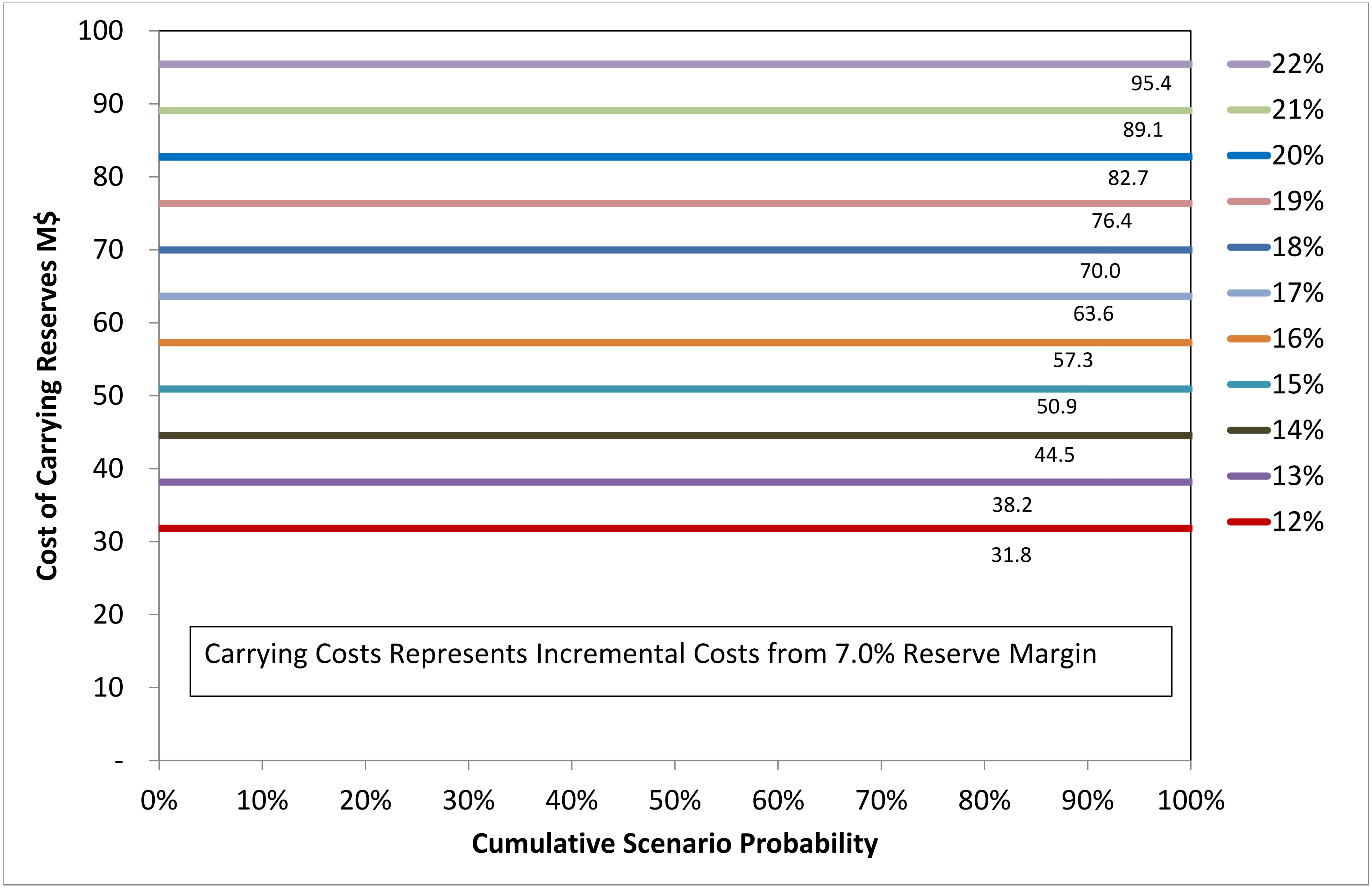
Year	Month	Wheeling Costs ($000)	
2012	1	-	$ -
2012	2	-	$ -
2012	3	-	$ -
2012	4	-	$ -
2012	5	-	$ -
2012	6	-	$ -
2012	7	-	$ -
2012	8	-	$ -
2012	9	-	$ -
2012	10	-	$ -
2012	11	-	$ -
2012	12	-	$ -

$ 6,266.67

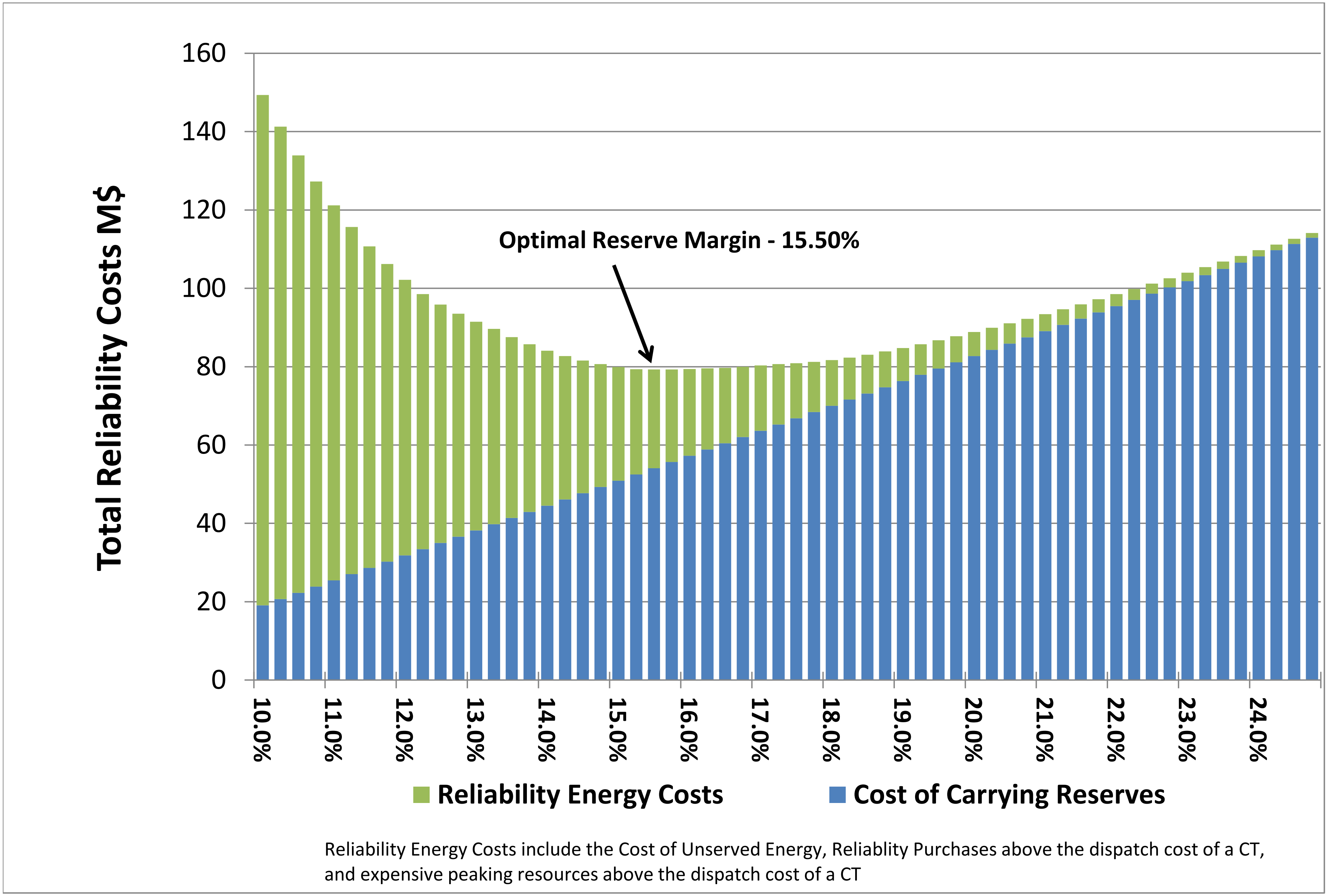
2012	1	88,399
2012	2	81,176
2012	3	79,656
2012	4	71,413
2012	5	75,959
2012	6	88,027
2012	7	98,828
2012	8	100,777
2012	9	78,546
2012	10	73,805
2012	11	74,164
2012	12	92,478
		1,003,228

Capacity (MW)	105
Approximate Peak Demand	7000
Impact of Capacity on RM	1.5%

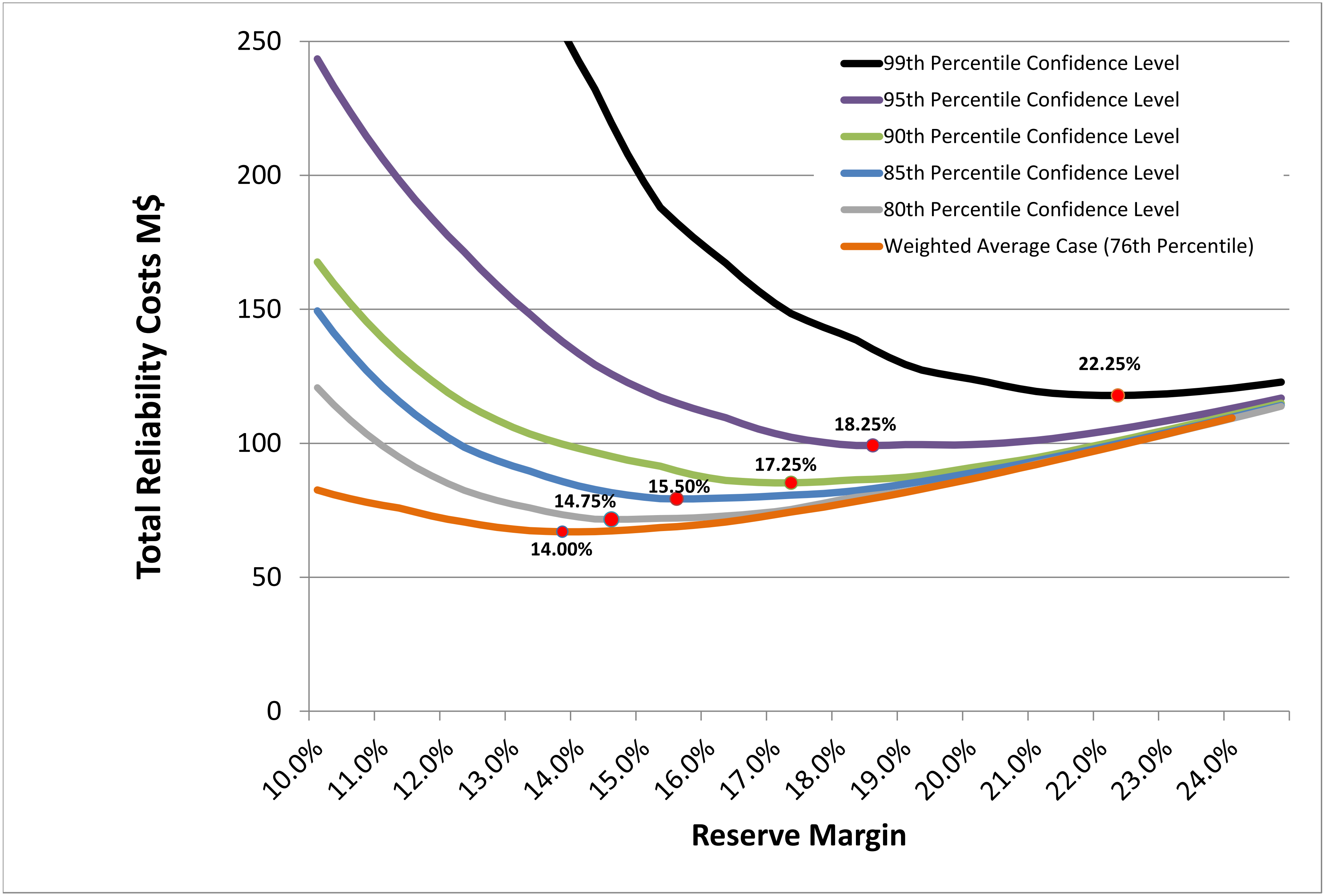
	Reliability Costs		Value of CSR Capacity ($/kW-month)	
Reserve Margin	85th Percentile	90th Percentile	85th Percentile	90th Percentile
10.00%	130,271	148,615	38.27	38.91
10.25%	120,612	139,022	35.43	36.40
10.50%	111,670	130,048	32.80	34.05
10.75%	103,390	121,653	30.37	31.85
11.00%	95,725	113,800	27.67	29.52
11.25%	88,627	106,454	25.13	27.32
11.50%	82,056	99,582	22.82	25.27
11.75%	75,972	93,154	20.70	23.37
12.00%	70,340	87,141	19.16	21.46
12.25%	65,124	81,516	17.76	19.69
12.50%	60,860	76,602	16.91	18.32
12.75%	56,959	72,036	16.16	17.10
13.00%	53,309	67,743	15.43	16.19
13.25%	49,892	63,706	14.72	15.33
13.50%	46,200	60,099	13.65	14.67
13.75%	42,747	56,711	12.60	14.10
14.00%	39,552	53,513	11.40	14.20
14.25%	36,595	50,495	10.31	14.23
14.50%	33,868	47,343	9.31	13.93
14.75%	31,343	44,388	8.43	13.57
15.00%	29,007	41,617	7.73	12.99
15.25%	26,869	38,950	7.10	12.36
15.50%	25,187	35,618	6.76	11.10
15.75%	23,610	32,571	6.49	9.95
16.00%	22,131	29,785	6.39	8.88
16.25%	20,722	27,284	6.26	7.95
16.50%	19,272	25,254	6.00	7.32
16.75%	17,922	23,375	5.72	6.82
17.00%	16,668	21,636	5.38	6.55
17.25%	15,437	20,038	5.01	6.28
17.50%	**14,078**	**18,601**	**4.49**	**6.05**
17.75%	12,838	17,267	4.02	5.73
18.00%	11,708	16,028	3.59	5.30
18.25%	10,713	14,776	3.23	4.81
18.50%	9,888	13,383	2.98	4.18
18.75%	9,126	12,122	2.76	3.70
19.00%	8,423	10,979	2.58	3.35
19.25%	7,777	10,043	2.41	3.12
19.50%	7,185	9,353	2.26	3.03
19.75%	6,639	8,712	2.11	2.87
20.00%	6,134	8,114	1.97	2.66
20.25%	5,647	7,466	1.82	2.39
20.50%	5,172	6,757	1.66	2.05
20.75%	4,737	6,115	1.52	1.76
21.00%	4,338	5,534	1.39	1.50
21.25%	3,977	5,091	1.27	1.33
21.50%	3,650	4,763	1.17	1.24
21.75%	3,350	4,457	1.07	1.16
22.00%	3,075	4,170	0.98	1.09
22.25%	2,822	3,901	0.90	1.02
22.50%	2,590	3,650	0.83	0.95
22.75%	2,378	3,415	0.76	0.89
23.00%	2,182	3,195	0.70	0.83
23.25%	2,003	2,990	0.64	0.78
23.50%	1,838	2,797	0.59	0.73
23.75%	1,687	2,617	0.54	0.68
24.00%	1,549	2,449	0.49	0.64
24.25%	1,421	2,291	0.45	0.60
24.50%	1,304	2,144	0.42	0.56
24.75%	1,197	2,006	0.38	0.52
25.00%	1,099	1,876		
25.25%	1,009	1,756		
25.50%	926	1,643		
25.75%	850	1,537		
26.00%	780	1,438		
26.25%	716	1,345		
26.50%	657	1,259		
26.75%	603	1,178		
27.00%	553	1,102		
27.25%	508	1,031		



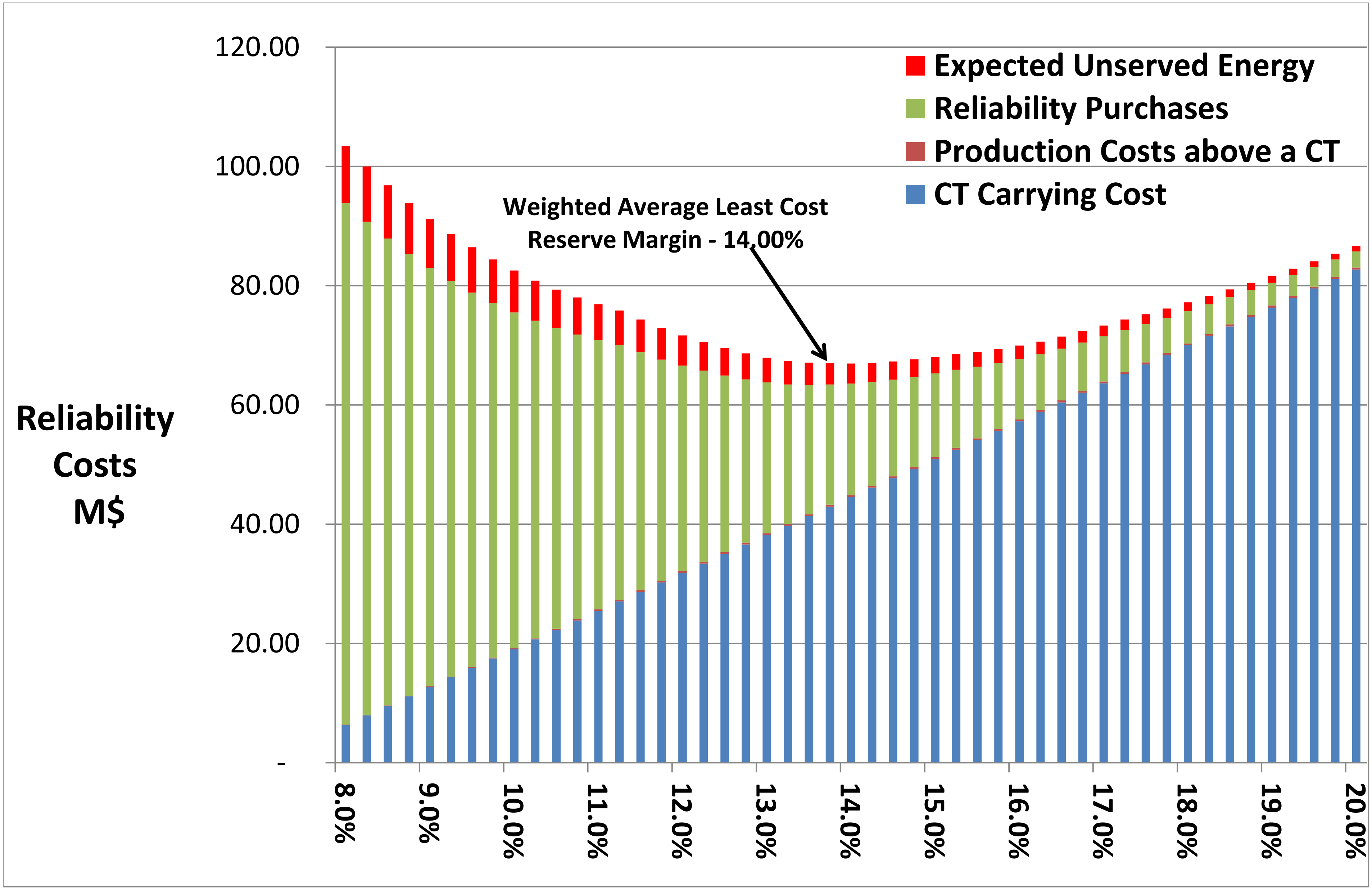
100
90
80
70
60
50
40
30
20
10
-
Cost of Carrying Reserves M$
95.4
89.1
82.7
76.4
70.0
63.6
57.3
50.9
44.5
38.2
31.8
Carrying Costs Represents Incremental Costs from 7.0% Reserve Margin
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Cumulative Scenario Probability
22%
21%
20%
19%
18%
17%
16%
15%
14%
13%
12%

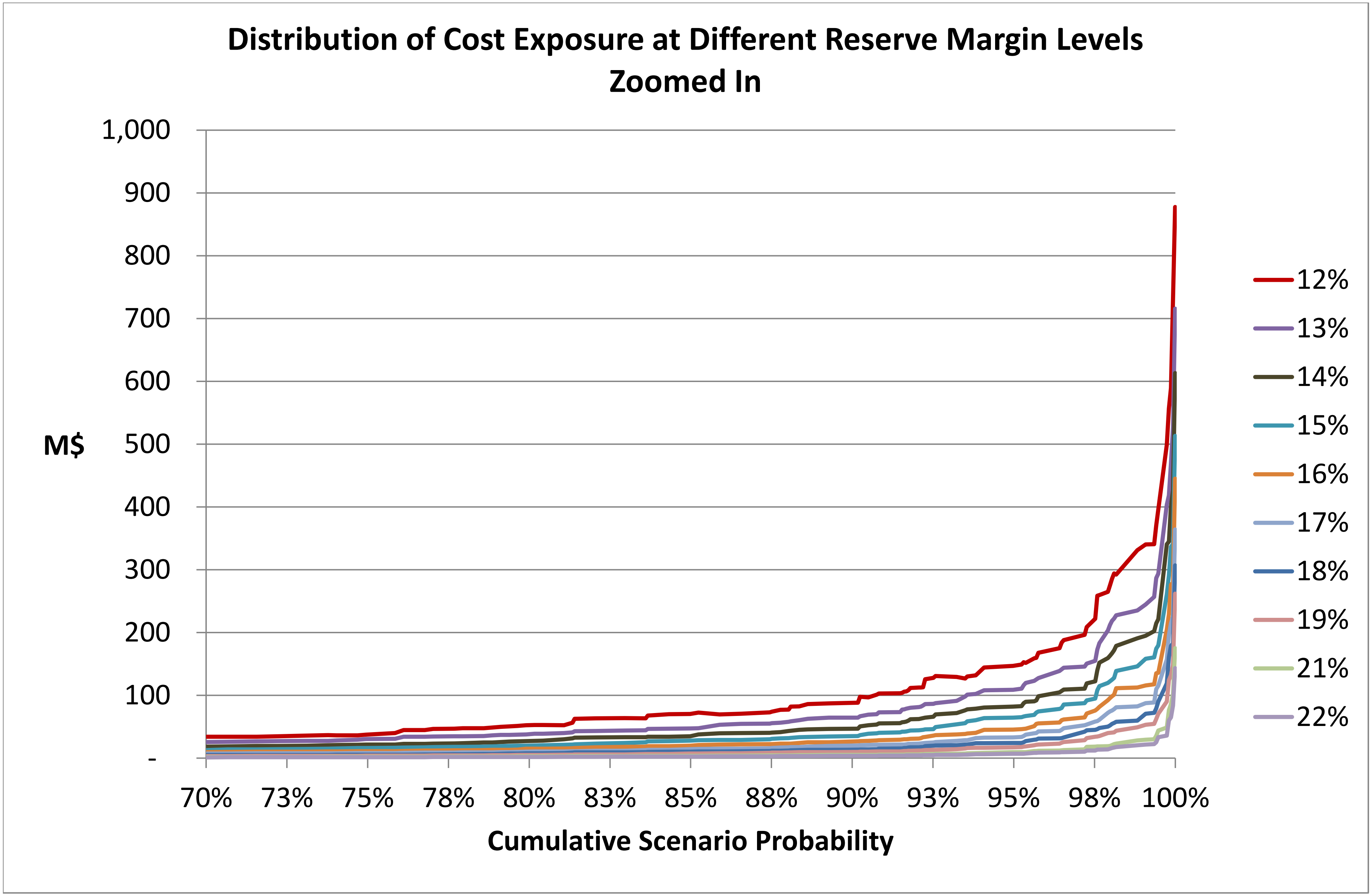


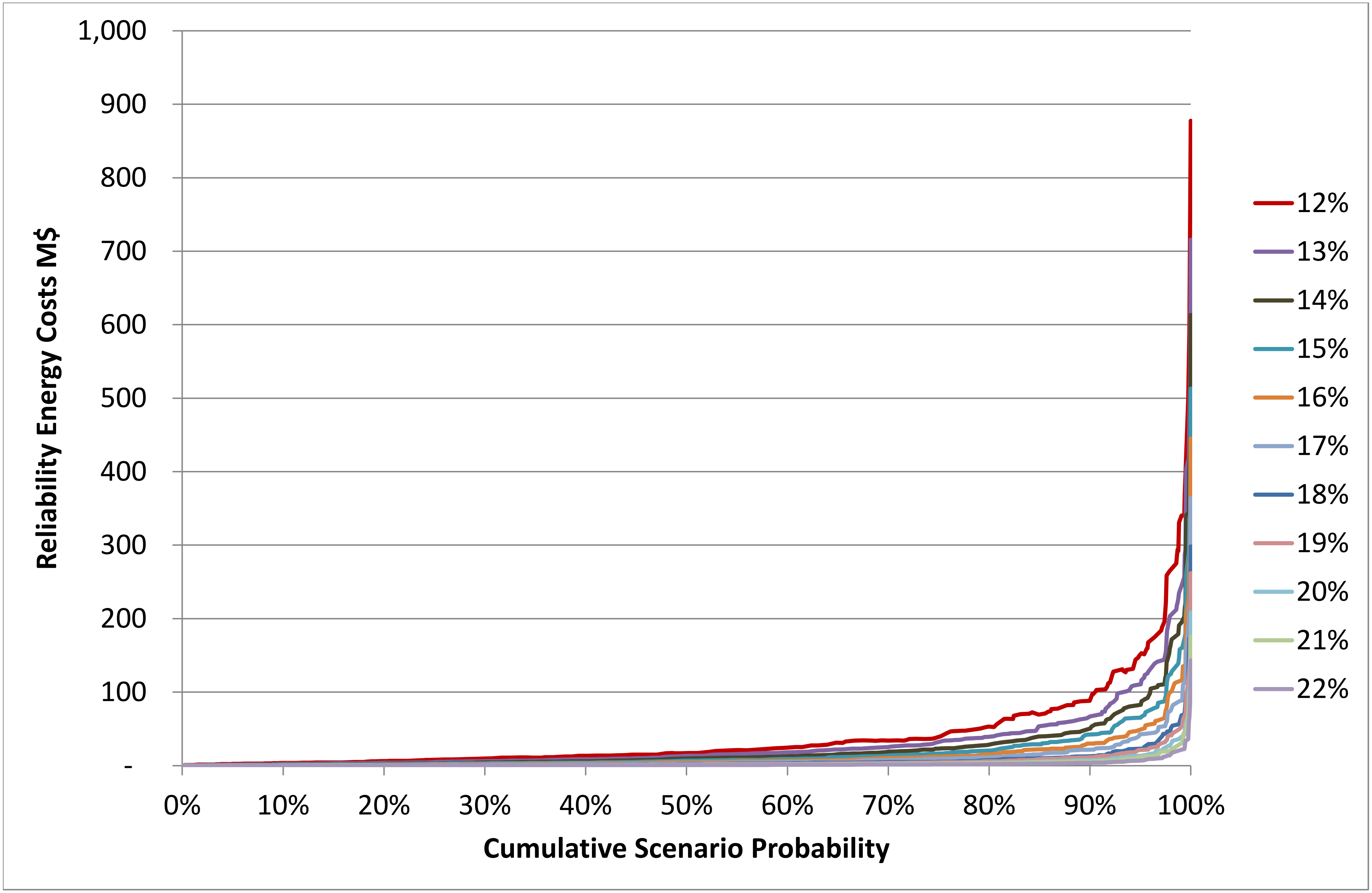
Total Reliability Costs M$
160
140
120
100
80
60
40
20
0
Optimal Reserve Margin - 15.50%
10.0%
11.0%
12.0%
13.0%
14.0%
15.0%
16.0%
17.0%
18.0%
19.0%
20.0%
21.0%
22.0%
23.0%
24.0%
Reliability Energy Costs
Cost of Carrying Reserves
Reliability Energy Costs include the Cost of Unserved Energy, Reliablity Purchases above the dispatch cost of a CT, and expensive peaking resources above the dispatch cost of a CT



250
200
150
100
50
0
Total Reliability Costs M$
99th Percentile Confidence Level
95th Percentile Confidence Level
90th Percentile Confidence Level
85th Percentile Confidence Level
80th Percentile Confidence Level
Weighted Average Case (76th Percentile)
22.25%
18.25%
17.25%
15.50%
14.75%
14.00%
10.0%
11.0%
12.0%
13.0%
14.0%
15.0%
16.0%
17.0%
18.0%
19.0%
20.0%
21.0%
22.0%
23.0%
24.0%
Reserve Margin


Reliability Costs M$
120.00
100.00
80.00
60.00
40.00
20.00
-
Expected Unserved Energy
Reliability Purchases
Production Costs above a CT
CT Carrying Cost
Weighted Average Least Cost Reserve Margin - 14.00%
8.0%
9.0%
10.0%
11.0%
12.0%
13.0%
14.0%
15.0%
16.0%
17.0%
18.0%
19.0%
20.0%


Distribution of Cost Exposure at Different Reserve Margin Levels
Zoomed In
M$
1,000
900
800
700
600
500
400
300
200
100
-
70%
73%
75%
78%
80%
83%
85%
88%
90%
93%
95%
98%
100%
Cumulative Scenario Probability
12%
13%
14%
15%
16%
17%
18%
19%
21%
22%


1,000
900
800
700
600
500
400
300
200
100
-
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Reliability Energy Costs M$
Cumulative Scenario Probability
12%
13%
14%
15%
16%
17%
18%
19%
20%
21%
22%

1,000	11.30%	11.30%	11.30%	12.28%	12.28%	12.28%	13.27%	13.27%	13.27%	14.25%	14.25%	14.25%	15.23%	15.23%	15.23%	16.21%	16.21%
	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob
0.06%	0.06%	0.064%	371,585	0.06%	0.064%	289,607	0.06%	0.064%	185,440	0.06%	0.064%	120,439	0.06%	0.064%	81,355	0.06%	0.064%
0.26%	0.06%	0.128%	520,025	0.06%	0.128%	334,124	0.06%	0.128%	202,620	0.06%	0.128%	137,412	0.06%	0.128%	98,044	0.06%	0.128%
0.65%	0.06%	0.193%	565,476	0.06%	0.193%	337,373	0.06%	0.193%	251,646	0.06%	0.193%	138,386	0.06%	0.193%	113,576	0.06%	0.193%
0.90%	0.06%	0.257%	755,782	0.06%	0.257%	532,774	0.06%	0.257%	258,482	0.06%	0.257%	206,234	0.06%	0.257%	159,671	0.06%	0.257%
0.65%	0.06%	0.321%	789,250	0.06%	0.321%	550,147	0.06%	0.321%	307,071	0.06%	0.321%	223,427	0.06%	0.321%	171,676	0.06%	0.321%
0.26%	0.06%	0.385%	795,291	0.06%	0.385%	560,803	0.06%	0.385%	307,989	0.26%	0.583%	244,026	0.06%	0.385%	177,943	0.06%	0.385%
0.06%	0.06%	0.449%	818,774	0.06%	0.449%	569,618	0.06%	0.449%	362,774	0.06%	0.647%	248,035	0.06%	0.449%	181,558	0.06%	0.449%
0.06%	0.06%	0.514%	877,321	0.06%	0.514%	589,126	0.06%	0.514%	393,732	0.06%	0.711%	251,822	0.06%	0.514%	188,880	0.06%	0.514%
0.26%	0.06%	0.578%	987,441	0.26%	0.775%	615,438	0.06%	0.578%	430,751	0.06%	0.775%	305,745	0.06%	0.578%	194,809	0.06%	0.578%
0.65%	0.06%	0.642%	997,936	0.06%	0.840%	620,584	0.06%	0.642%	432,161	0.06%	0.840%	308,724	0.06%	0.642%	201,734	0.26%	0.840%
0.90%	0.06%	0.706%	1,030,460	0.06%	0.904%	665,510	0.06%	0.706%	434,003	0.06%	0.904%	356,514	0.06%	0.706%	210,215	0.06%	0.904%
0.65%	0.06%	0.770%	1,033,002	0.06%	0.968%	670,795	0.06%	0.770%	450,184	0.06%	0.968%	364,034	0.06%	0.770%	211,359	0.06%	0.968%
0.26%	0.06%	0.835%	1,171,160	0.06%	1.032%	706,425	0.06%	0.835%	454,764	0.06%	1.032%	395,954	0.06%	0.835%	228,359	0.06%	1.032%
0.06%	0.26%	1.096%	1,230,136	0.06%	1.096%	745,796	0.06%	0.899%	473,671	0.06%	1.096%	398,195	0.26%	1.096%	231,954	0.06%	1.096%
0.06%	0.06%	1.161%	1,238,980	0.06%	1.161%	754,771	0.06%	0.963%	482,024	0.06%	1.161%	402,806	0.06%	1.161%	265,507	0.06%	1.161%
0.26%	0.06%	1.225%	1,327,125	0.06%	1.225%	961,856	0.26%	1.225%	508,356	0.06%	1.225%	403,528	0.06%	1.225%	274,571	0.06%	1.225%
0.65%	0.26%	1.487%	1,359,367	0.06%	1.289%	962,848	0.06%	1.289%	512,813	0.06%	1.289%	410,520	0.06%	1.289%	299,581	0.06%	1.289%
0.90%	0.26%	1.748%	1,371,668	0.06%	1.353%	1,009,667	0.06%	1.353%	513,065	0.06%	1.353%	426,550	0.06%	1.353%	303,505	0.06%	1.353%
0.65%	0.06%	1.813%	1,436,678	0.26%	1.615%	1,062,254	0.26%	1.615%	519,664	0.06%	1.417%	428,534	0.06%	1.417%	308,118	0.26%	1.615%
0.26%	0.06%	1.877%	1,611,176	0.06%	1.679%	1,084,058	0.26%	1.877%	556,028	0.26%	1.679%	432,630	0.26%	1.679%	316,801	0.06%	1.679%
0.06%	0.06%	1.941%	1,619,084	0.06%	1.743%	1,106,709	0.06%	1.941%	645,051	0.26%	1.941%	453,002	0.06%	1.743%	329,907	0.26%	1.941%
0.06%	0.06%	2.005%	1,705,419	0.26%	2.005%	1,107,432	0.06%	2.005%	674,233	0.06%	2.005%	456,176	0.06%	1.808%	331,311	0.26%	2.203%
0.26%	0.06%	2.069%	1,801,290	0.65%	2.658%	1,250,265	0.06%	2.069%	816,273	0.26%	2.267%	596,237	0.26%	2.069%	349,888	0.26%	2.465%
0.65%	0.06%	2.134%	1,854,480	0.26%	2.920%	1,295,179	0.26%	2.331%	856,729	0.26%	2.529%	597,678	0.26%	2.331%	399,973	0.26%	2.726%
0.90%	0.06%	2.198%	2,028,442	0.26%	3.182%	1,352,341	0.26%	2.593%	872,033	0.26%	2.791%	606,321	0.65%	2.984%	457,145	0.26%	2.988%
0.65%	0.06%	2.262%	2,091,913	0.06%	3.246%	1,356,352	0.26%	2.855%	941,358	0.06%	2.855%	648,734	0.26%	3.246%	473,524	0.06%	3.052%
0.26%	0.26%	2.524%	2,398,640	0.06%	3.310%	1,501,322	0.06%	2.919%	962,581	0.26%	3.117%	656,104	0.26%	3.508%	491,223	0.26%	3.314%
0.06%	0.65%	3.177%	2,408,548	0.06%	3.375%	1,516,737	0.26%	3.181%	1,019,003	0.26%	3.378%	683,278	0.06%	3.572%	506,789	0.26%	3.576%
0.06%	0.26%	3.439%	2,485,069	0.26%	3.636%	1,588,654	0.26%	3.443%	1,034,240	0.06%	3.443%	695,263	0.26%	3.834%	509,547	0.06%	3.640%
0.26%	0.26%	3.701%	2,488,189	0.26%	3.898%	1,703,182	0.26%	3.704%	1,043,907	0.65%	4.096%	708,823	0.26%	4.096%	535,730	0.26%	3.902%
0.65%	0.26%	3.962%	2,509,631	0.26%	4.160%	1,709,153	0.06%	3.769%	1,045,950	0.06%	4.160%	756,114	0.26%	4.358%	542,401	0.06%	3.966%
0.90%	0.26%	4.224%	2,517,273	0.06%	4.224%	1,716,353	0.06%	3.833%	1,086,486	0.26%	4.422%	766,209	0.26%	4.619%	550,505	0.06%	4.030%
0.65%	0.26%	4.486%	2,611,115	0.26%	4.486%	1,774,138	0.26%	4.095%	1,086,775	0.26%	4.684%	790,159	0.06%	4.684%	551,423	0.26%	4.292%
0.26%	0.26%	4.748%	2,614,116	0.26%	4.748%	1,775,545	0.26%	4.356%	1,109,943	0.26%	4.945%	813,474	0.26%	4.945%	553,745	0.26%	4.554%
0.06%	0.26%	5.010%	2,633,150	0.26%	5.010%	1,926,664	0.26%	4.618%	1,115,996	0.65%	5.599%	828,869	0.26%	5.207%	557,060	0.06%	4.618%
0.06%	0.06%	5.074%	2,683,706	0.26%	5.271%	1,951,401	0.06%	4.682%	1,146,936	0.26%	5.860%	861,036	0.26%	5.469%	558,516	0.26%	4.880%
0.26%	0.06%	5.138%	2,805,865	0.06%	5.336%	1,969,462	0.65%	5.336%	1,156,337	0.26%	6.122%	903,152	0.26%	5.731%	561,367	0.26%	5.142%
0.65%	0.06%	5.202%	2,948,811	0.26%	5.597%	2,021,207	0.26%	5.597%	1,156,553	0.06%	6.186%	912,991	0.06%	5.795%	588,859	0.65%	5.795%
0.90%	0.26%	5.464%	3,064,809	0.65%	6.251%	2,275,255	0.26%	5.859%	1,195,151	0.06%	6.251%	928,477	0.06%	5.859%	624,018	0.65%	6.448%
0.65%	0.26%	5.726%	3,093,387	0.26%	6.512%	2,281,692	0.26%	6.121%	1,280,132	0.26%	6.512%	951,719	0.65%	6.512%	625,148	0.06%	6.512%
0.26%	0.06%	5.790%	3,360,561	0.06%	6.577%	2,296,782	0.06%	6.185%	1,388,267	0.26%	6.774%	1,010,921	0.65%	7.166%	636,499	0.06%	6.577%
0.06%	0.65%	6.443%	3,383,053	0.26%	6.838%	2,310,768	0.06%	6.249%	1,436,809	0.65%	7.427%	1,022,101	0.26%	7.427%	636,664	0.26%	6.838%
0.06%	0.65%	7.096%	3,394,948	0.06%	6.903%	2,350,932	0.65%	6.903%	1,475,016	0.65%	8.081%	1,037,494	0.06%	7.492%	663,770	0.26%	7.100%
0.26%	0.26%	7.358%	3,411,667	0.65%	7.556%	2,441,296	0.65%	7.556%	1,558,170	0.06%	8.145%	1,057,461	0.06%	7.556%	669,580	0.65%	7.753%
0.65%	0.06%	7.422%	3,480,173	0.26%	7.818%	2,446,607	0.26%	7.818%	1,566,200	0.26%	8.407%	1,082,358	0.06%	7.620%	685,756	0.90%	8.652%
0.90%	0.26%	7.684%	3,647,505	0.26%	8.079%	2,474,666	0.26%	8.079%	1,596,856	0.06%	8.471%	1,134,865	0.65%	8.273%	691,819	0.06%	8.716%
0.65%	0.26%	7.946%	3,657,389	0.06%	8.144%	2,574,911	0.65%	8.733%	1,638,187	0.06%	8.535%	1,176,238	0.26%	8.535%	749,663	0.06%	8.780%
0.26%	0.26%	8.208%	3,828,790	0.65%	8.797%	2,606,995	0.06%	8.797%	1,673,684	0.26%	8.797%	1,278,419	0.26%	8.797%	751,785	0.65%	9.434%
0.06%	0.26%	8.470%	3,960,729	0.06%	8.861%	2,694,782	0.26%	9.059%	1,700,354	0.26%	9.059%	1,374,356	0.06%	8.861%	758,176	0.06%	9.498%
0.06%	0.06%	8.534%	4,193,611	0.06%	8.925%	2,728,259	0.26%	9.320%	1,732,585	0.65%	9.712%	1,413,357	0.06%	8.925%	874,511	0.06%	9.562%
0.26%	0.65%	9.187%	4,226,089	0.06%	8.989%	2,799,260	0.06%	9.385%	1,810,980	0.06%	9.776%	1,421,169	0.26%	9.187%	880,828	0.65%	10.215%
0.65%	0.65%	9.840%	4,747,261	0.26%	9.251%	2,886,961	0.06%	9.449%	1,920,442	0.90%	10.675%	1,432,842	0.06%	9.251%	958,701	0.06%	10.279%
0.90%	0.06%	9.904%	4,759,635	0.26%	9.513%	2,931,219	0.06%	9.513%	2,039,207	0.65%	11.328%	1,524,385	0.65%	9.904%	1,054,150	0.26%	10.541%
0.65%	0.06%	9.969%	4,779,874	0.26%	9.775%	3,169,677	0.65%	10.166%	2,325,324	0.65%	11.981%	1,531,773	0.26%	10.166%	1,099,769	0.26%	10.803%
0.26%	0.65%	10.622%	4,796,082	0.90%	10.673%	3,291,332	0.65%	10.819%	2,375,231	0.26%	12.243%	1,557,223	0.65%	10.819%	1,128,641	0.65%	11.456%
0.06%	0.26%	10.884%	4,798,404	0.65%	11.327%	3,314,255	0.65%	11.473%	2,390,046	0.06%	12.307%	1,681,122	0.65%	11.473%	1,172,106	0.65%	12.109%
0.06%	0.26%	11.145%	4,924,809	0.65%	11.980%	3,456,280	0.65%	12.126%	2,400,152	0.26%	12.569%	1,724,999	0.65%	12.126%	1,210,680	0.26%	12.371%
0.26%	0.06%	11.210%	5,081,266	0.65%	12.633%	3,486,831	0.65%	12.779%	2,512,388	0.65%	13.222%	1,765,069	0.26%	12.388%	1,235,691	0.26%	12.633%
0.65%	0.65%	11.863%	5,137,323	0.06%	12.697%	3,624,295	0.06%	12.843%	2,536,178	0.26%	13.484%	1,807,728	0.65%	13.041%	1,259,199	0.65%	13.286%
0.90%	0.26%	12.125%	5,293,796	0.65%	13.350%	3,696,963	0.26%	13.105%	2,543,624	0.65%	14.137%	1,846,281	0.65%	13.694%	1,281,833	0.65%	13.939%
0.65%	0.65%	12.778%	5,508,850	0.65%	14.004%	3,831,927	0.26%	13.367%	2,675,070	0.65%	14.790%	1,851,776	0.06%	13.758%	1,308,649	0.65%	14.593%
0.26%	0.26%	13.040%	5,710,372	0.65%	14.657%	3,841,339	0.65%	14.020%	2,750,467	0.65%	15.443%	1,863,254	0.26%	14.020%	1,315,542	0.65%	15.246%
0.06%	0.65%	13.693%	5,806,927	0.26%	14.919%	3,889,169	0.65%	14.673%	2,964,365	0.26%	15.705%	1,864,417	0.65%	14.673%	1,487,935	0.65%	15.899%
0.06%	0.65%	14.346%	5,807,944	0.26%	15.180%	3,904,724	0.65%	15.326%	2,977,977	0.26%	15.967%	1,934,419	0.65%	15.326%	1,512,309	0.26%	16.161%
0.26%	0.26%	14.608%	5,895,846	0.65%	15.834%	3,925,249	0.26%	15.588%	2,993,143	0.65%	16.620%	2,030,309	0.65%	15.980%	1,571,785	0.65%	16.814%
0.65%	0.26%	14.870%	6,006,830	0.65%	16.487%	4,087,163	0.26%	15.850%	2,998,971	0.90%	17.519%	2,030,711	0.90%	16.878%	1,586,806	0.65%	17.467%
0.90%	0.65%	15.523%	6,252,608	0.65%	17.140%	4,322,894	0.65%	16.503%	3,076,778	0.65%	18.172%	2,093,251	0.90%	17.777%	1,717,366	0.65%	18.120%
0.65%	0.65%	16.176%	6,412,073	0.26%	17.402%	4,390,898	0.65%	17.156%	3,086,541	0.65%	18.825%	2,291,379	0.65%	18.430%	1,720,463	0.90%	19.019%
0.26%	0.65%	16.829%	6,429,550	0.65%	18.055%	4,525,735	0.90%	18.055%	3,203,046	0.90%	19.724%	2,293,263	0.06%	18.494%	1,720,755	0.06%	19.083%
0.06%	0.90%	17.728%	6,506,776	0.06%	18.119%	4,726,895	0.65%	18.708%	3,309,752	0.65%	20.377%	2,387,219	0.26%	18.756%	1,737,359	0.26%	19.345%
0.06%	0.26%	17.990%	6,566,572	0.65%	18.772%	5,069,591	0.65%	19.361%	3,374,876	0.65%	21.030%	2,397,912	0.26%	19.018%	1,765,481	0.90%	20.244%
0.26%	0.65%	18.643%	6,585,032	0.26%	19.034%	5,193,245	0.65%	20.015%	3,409,175	0.26%	21.292%	2,421,632	0.65%	19.671%	1,774,379	0.26%	20.505%
0.65%	0.65%	19.296%	7,276,021	0.06%	19.098%	5,233,312	0.90%	20.913%	3,488,260	0.65%	21.945%	2,432,217	0.65%	20.324%	1,777,528	0.26%	20.767%
0.90%	0.65%	19.949%	7,454,089	0.65%	19.752%	5,292,504	0.26%	21.175%	3,504,009	0.26%	22.207%	2,516,406	0.65%	20.977%	1,777,852	0.65%	21.420%
0.65%	0.06%	20.013%	8,053,971	0.26%	20.013%	5,394,956	0.06%	21.239%	3,579,989	0.26%	22.469%	2,574,694	0.06%	21.042%	1,793,224	0.26%	21.682%
0.26%	0.90%	20.912%	8,463,208	0.26%	20.275%	5,431,393	0.65%	21.892%	3,670,342	0.06%	22.533%	2,592,403	0.26%	21.303%	1,845,248	0.06%	21.746%
0.06%	0.26%	21.174%	8,714,868	0.26%	20.537%	5,617,327	0.90%	22.791%	3,724,926	0.90%	23.432%	2,685,929	0.26%	21.565%	1,863,010	0.26%	22.008%
0.06%	0.90%	22.072%	8,715,743	0.65%	21.190%	5,714,056	0.90%	23.690%	3,867,435	0.26%	23.693%	2,725,599	0.26%	21.827%	1,957,231	0.26%	22.270%
0.26%	0.65%	22.726%	9,067,271	0.90%	22.089%	5,715,611	0.65%	24.343%	3,891,604	0.65%	24.347%	2,747,383	0.65%	22.480%	2,049,730	0.90%	23.169%
0.65%	0.06%	22.790%	9,523,366	0.26%	22.351%	5,750,437	0.26%	24.605%	3,993,237	0.65%	25.000%	2,804,770	0.65%	23.133%	2,052,682	0.90%	24.067%
0.90%	0.90%	23.688%	9,648,811	0.90%	23.249%	6,161,005	0.26%	24.866%	4,100,686	0.90%	25.898%	3,071,861	0.06%	23.198%	2,190,660	0.90%	24.966%
0.65%	0.65%	24.342%	9,683,531	0.65%	23.902%	6,570,220	0.06%	24.931%	4,146,905	0.65%	26.552%	3,140,990	0.65%	23.851%	2,234,397	0.65%	25.619%
0.26%	0.65%	24.995%	10,624,237	0.26%	24.164%	6,744,020	0.06%	24.995%	4,215,428	0.06%	26.616%	3,179,930	0.26%	24.113%	2,288,982	0.26%	25.881%
0.06%	0.26%	25.257%	11,022,548	0.26%	24.426%	6,903,562	0.65%	25.648%	4,493,960	0.26%	26.878%	3,215,014	0.90%	25.011%	2,371,352	0.26%	26.143%
0.06%	0.90%	26.155%	11,092,559	0.90%	25.325%	7,057,500	0.26%	25.910%	4,647,787	0.90%	27.776%	3,331,534	0.65%	25.664%	2,400,966	0.90%	27.041%
0.26%	0.26%	26.417%	11,094,688	0.65%	25.978%	7,383,018	0.90%	26.808%	4,748,684	0.26%	28.038%	3,407,590	0.26%	25.926%	2,634,045	0.90%	27.940%
0.65%	0.26%	26.679%	11,122,736	0.06%	26.042%	7,509,945	0.90%	27.707%	4,988,188	0.90%	28.937%	3,423,562	0.90%	26.825%	2,686,468	0.65%	28.593%
0.90%	0.90%	27.577%	11,248,013	0.65%	26.695%	7,553,197	0.65%	28.360%	5,176,774	0.06%	29.001%	3,734,122	0.90%	27.723%	2,713,561	0.65%	29.246%
0.65%	0.06%	27.642%	11,545,636	0.90%	27.594%	7,772,163	0.90%	29.259%	5,257,826	0.90%	29.899%	3,795,800	0.65%	28.377%	2,739,079	0.90%	30.145%
0.26%	0.90%	28.540%	11,589,534	0.65%	28.247%	7,990,259	0.26%	29.521%	5,298,841	0.26%	30.161%	3,823,739	0.90%	29.275%	2,774,883	0.26%	30.407%
0.06%	0.65%	29.193%	12,125,237	0.90%	29.146%	8,212,954	0.65%	30.174%	5,339,830	0.06%	30.225%	3,841,956	0.26%	29.537%	2,784,914	0.65%	31.060%
0.06%	0.65%	29.847%	12,238,930	0.06%	29.210%	8,299,283	0.90%	31.072%	5,394,711	0.65%	30.879%	3,960,913	0.90%	30.436%	2,903,494	0.65%	31.713%
0.26%	0.90%	30.745%	12,340,251	0.65%	29.863%	8,408,591	0.26%	31.334%	5,495,505	0.90%	31.777%	4,067,260	0.06%	30.500%	2,913,094	0.06%	31.777%
0.65%	0.90%	31.644%	12,690,107	0.90%	30.762%	8,694,938	0.90%	32.233%	5,787,655	0.06%	31.841%	4,141,830	0.90%	31.398%	3,029,081	0.90%	32.676%
0.90%	0.26%	31.906%	12,759,595	0.90%	31.660%	9,435,301	0.26%	32.495%	5,868,108	0.26%	32.103%	4,214,978	0.90%	32.297%	3,040,337	0.06%	32.740%
0.65%	0.26%	32.167%	12,792,298	0.90%	32.559%	9,538,441	0.90%	33.393%	5,893,134	0.65%	32.756%	4,217,428	0.26%	32.559%	3,092,986	0.65%	33.393%
0.26%	0.90%	33.066%	12,916,379	0.90%	33.457%	9,633,757	0.90%	34.292%	6,029,117	0.90%	33.655%	4,373,398	0.65%	33.212%	3,111,392	0.26%	33.655%
0.06%	0.90%	33.965%	13,401,825	0.65%	34.111%	9,697,653	0.65%	34.945%	6,206,379	0.90%	34.554%	4,450,204	0.90%	34.111%	3,165,760	0.65%	34.308%
0.06%	0.65%	34.618%	13,565,989	0.65%	34.764%	9,698,141	0.90%	35.844%	6,414,192	0.90%	35.452%	4,729,292	0.26%	34.372%	3,202,908	0.65%	34.961%
0.26%	0.90%	35.516%	13,592,124	0.90%	35.662%	9,735,506	0.06%	35.908%	6,492,054	0.90%	36.351%	4,740,942	0.90%	35.271%	3,340,258	0.90%	35.860%
0.65%	0.65%	36.170%	14,963,793	0.26%	35.924%	10,143,785	0.65%	36.561%	6,966,463	0.65%	37.004%	4,865,701	0.90%	36.170%	3,477,294	0.90%	36.759%
0.90%	0.90%	37.068%	15,207,643	0.90%	36.823%	10,243,728	0.90%	37.460%	7,288,456	0.65%	37.657%	4,867,938	0.90%	37.068%	3,520,995	0.90%	37.657%
0.65%	0.90%	37.967%	15,254,643	0.26%	37.085%	10,724,411	0.90%	38.358%	7,639,865	0.90%	38.556%	5,210,060	0.90%	37.967%	3,575,394	0.90%	38.556%
0.26%	0.26%	38.229%	15,444,687	0.90%	37.983%	11,038,533	0.90%	39.257%	7,682,890	0.06%	38.620%	5,280,397	0.90%	38.865%	3,580,371	0.65%	39.209%
0.06%	0.65%	38.882%	15,734,621	0.65%	38.636%	11,068,727	0.90%	40.155%	7,727,829	0.65%	39.273%	5,298,785	0.65%	39.519%	3,611,650	0.06%	39.273%
0.06%	0.65%	39.535%	15,825,668	0.65%	39.290%	11,879,221	0.65%	40.809%	7,766,291	0.65%	39.926%	5,309,365	0.90%	40.417%	3,624,128	0.90%	40.172%
0.26%	0.65%	40.188%	15,862,018	0.90%	40.188%	11,940,777	0.65%	41.462%	7,868,012	0.65%	40.580%	5,402,134	0.65%	41.070%	3,786,085	0.90%	41.070%
0.65%	0.90%	41.087%	16,139,895	0.90%	41.087%	12,015,160	0.26%	41.724%	7,958,733	0.90%	41.478%	5,440,369	0.65%	41.724%	4,179,373	0.26%	41.332%
0.90%	0.65%	41.740%	16,669,098	0.65%	41.740%	12,120,423	0.26%	41.985%	8,166,107	0.65%	42.131%	5,793,328	0.65%	42.377%	4,214,212	0.65%	41.985%
0.65%	0.90%	42.639%	17,070,948	0.65%	42.393%	12,211,017	0.65%	42.639%	8,249,624	0.90%	43.030%	6,108,814	0.90%	43.275%	4,289,223	0.65%	42.639%
0.26%	0.65%	43.292%	17,857,979	0.65%	43.046%	12,401,322	0.90%	43.537%	8,526,906	0.65%	43.683%	6,153,415	0.90%	44.174%	4,398,514	0.65%	43.292%
0.06%	0.90%	44.190%	18,035,588	0.90%	43.945%	12,671,519	0.90%	44.436%	8,582,281	0.65%	44.336%	6,670,764	0.65%	44.827%	4,440,278	0.65%	43.945%
0.06%	0.65%	44.844%	18,284,768	0.65%	44.598%	13,421,279	0.65%	45.089%	9,071,509	0.90%	45.235%	6,765,644	0.65%	45.480%	4,852,436	0.90%	44.844%
0.26%	0.65%	45.497%	18,660,995	0.90%	45.497%	13,518,144	0.90%	45.988%	9,361,352	0.65%	45.888%	6,917,859	0.90%	46.379%	5,086,620	0.65%	45.497%
0.65%	0.65%	46.150%	19,011,165	0.65%	46.150%	13,590,738	0.65%	46.641%	9,819,110	0.65%	46.541%	7,047,306	0.26%	46.641%	5,113,716	0.65%	46.150%
0.90%	0.26%	46.412%	19,286,061	0.90%	47.049%	13,692,709	0.65%	47.294%	10,037,839	0.26%	46.803%	7,107,242	0.65%	47.294%	5,267,433	0.65%	46.803%
0.65%	0.90%	47.310%	19,924,157	0.90%	47.947%	15,231,585	0.65%	47.947%	11,078,529	0.90%	47.702%	7,484,303	0.65%	47.947%	5,297,353	0.90%	47.702%
0.26%	0.65%	47.964%	20,157,755	0.65%	48.600%	15,555,838	0.65%	48.600%	11,476,606	0.65%	48.355%	8,264,110	0.65%	48.600%	5,607,893	0.90%	48.600%
0.06%	0.90%	48.862%	20,448,032	0.26%	48.862%	15,598,340	0.65%	49.254%	11,933,806	0.65%	49.008%	8,369,234	0.65%	49.254%	5,884,306	0.65%	49.254%
0.06%	0.26%	49.124%	22,050,163	0.65%	49.515%	15,665,201	0.65%	49.907%	12,458,149	0.90%	49.907%	8,760,597	0.65%	49.907%	6,061,554	0.65%	49.907%
0.26%	0.65%	49.777%	22,821,382	0.65%	50.169%	15,858,248	0.65%	50.560%	12,484,869	0.26%	50.169%	8,868,290	0.65%	50.560%	6,115,769	0.65%	50.560%
0.65%	0.90%	50.676%	23,666,271	0.26%	50.430%	15,935,192	0.90%	51.459%	12,527,937	0.65%	50.822%	8,940,395	0.65%	51.213%	6,135,790	0.65%	51.213%
0.90%	0.65%	51.329%	24,174,388	0.65%	51.084%	16,006,584	0.26%	51.720%	12,561,995	0.65%	51.475%	9,029,610	0.65%	51.866%	6,525,505	0.26%	51.475%
0.65%	0.90%	52.228%	26,054,240	0.90%	51.982%	17,163,819	0.65%	52.374%	13,524,923	0.65%	52.128%	9,174,903	0.65%	52.520%	6,583,693	0.26%	51.737%
0.26%	0.65%	52.881%	28,327,497	0.26%	52.244%	17,477,532	0.26%	52.635%	13,905,183	0.90%	53.027%	9,448,839	0.90%	53.418%	6,768,346	0.65%	52.390%
0.06%	0.65%	53.534%	28,943,186	0.65%	52.897%	18,486,825	0.65%	53.289%	14,041,301	0.26%	53.289%	9,542,173	0.65%	54.071%	6,902,657	0.65%	53.043%
0.06%	0.65%	54.187%	29,081,290	0.65%	53.550%	18,598,387	0.65%	53.942%	14,184,738	0.65%	53.942%	9,674,081	0.26%	54.333%	6,992,646	0.65%	53.696%
0.26%	0.90%	55.086%	29,356,421	0.90%	54.449%	19,268,039	0.65%	54.595%	14,377,251	0.26%	54.204%	9,758,359	0.65%	54.986%	7,115,041	0.90%	54.595%
0.65%	0.65%	55.739%	29,550,270	0.65%	55.102%	19,403,987	0.65%	55.248%	14,629,527	0.65%	54.857%	9,794,699	0.26%	55.248%	7,141,199	0.90%	55.494%
0.90%	0.65%	56.392%	29,812,821	0.90%	56.001%	19,410,248	0.90%	56.147%	15,135,443	0.90%	55.755%	9,827,938	0.90%	56.147%	7,153,406	0.26%	55.755%
0.65%	0.26%	56.654%	30,511,649	0.65%	56.654%	19,772,908	0.26%	56.409%	15,170,552	0.65%	56.409%	9,891,258	0.65%	56.800%	7,219,817	0.65%	56.409%
0.26%	0.90%	57.553%	30,704,996	0.65%	57.307%	20,353,535	0.65%	57.062%	15,623,099	0.90%	57.307%	10,131,411	0.26%	57.062%	7,239,530	0.65%	57.062%
0.06%	0.65%	58.206%	32,314,645	0.65%	57.960%	20,860,544	0.90%	57.960%	15,730,184	0.65%	57.960%	10,472,161	0.65%	57.715%	7,427,472	0.65%	57.715%
0.06%	0.65%	58.859%	32,595,085	0.90%	58.859%	21,550,786	0.65%	58.614%	15,748,017	0.65%	58.614%	10,819,704	0.90%	58.614%	8,177,595	0.26%	57.977%
0.26%	0.90%	59.758%	33,002,016	0.65%	59.512%	21,866,909	0.65%	59.267%	16,123,072	0.65%	59.267%	10,984,886	0.65%	59.267%	8,213,672	0.65%	58.630%
0.65%	0.26%	60.019%	33,021,631	0.65%	60.165%	22,526,326	0.65%	59.920%	16,454,220	0.90%	60.165%	11,440,531	0.65%	59.920%	8,270,205	0.65%	59.283%
0.90%	0.65%	60.673%	33,106,789	0.65%	60.819%	23,001,149	0.90%	60.819%	16,645,993	0.65%	60.819%	11,624,284	0.65%	60.573%	8,385,341	0.65%	59.936%
0.65%	0.65%	61.326%	33,172,438	0.65%	61.472%	23,067,906	0.65%	61.472%	17,087,149	0.65%	61.472%	12,344,689	0.65%	61.226%	8,607,214	0.26%	60.198%
0.26%	0.65%	61.979%	33,661,916	0.90%	62.370%	24,707,651	0.65%	62.125%	17,113,393	0.65%	62.125%	12,812,356	0.65%	61.880%	8,611,133	0.90%	61.097%
0.06%	0.65%	62.632%	33,970,030	0.65%	63.024%	24,887,291	0.26%	62.387%	18,067,691	0.65%	62.778%	12,927,516	0.65%	62.533%	8,630,128	0.90%	61.995%
0.06%	0.65%	63.285%	34,437,355	0.26%	63.285%	25,448,255	0.65%	63.040%	19,073,116	0.65%	63.431%	12,965,495	0.26%	62.795%	8,672,453	0.65%	62.649%
0.26%	0.90%	64.184%	36,134,651	0.65%	63.939%	25,886,504	0.65%	63.693%	19,240,261	0.90%	64.330%	13,308,854	0.90%	63.693%	8,978,333	0.90%	63.547%
0.65%	0.65%	64.837%	36,555,653	0.90%	64.837%	27,942,506	0.65%	64.346%	19,449,033	0.26%	64.592%	13,560,079	0.26%	63.955%	9,977,185	0.90%	64.446%
0.90%	0.26%	65.099%	36,609,731	0.65%	65.490%	27,964,560	0.26%	64.608%	19,693,237	0.65%	65.245%	14,832,146	0.26%	64.217%	10,565,932	0.65%	65.099%
0.65%	0.90%	65.998%	37,521,499	0.26%	65.752%	29,363,178	0.90%	65.507%	19,891,874	0.90%	66.144%	15,027,152	0.90%	65.115%	10,578,149	0.65%	65.752%
0.26%	0.26%	66.259%	39,833,634	0.90%	66.651%	30,386,241	0.90%	66.405%	20,720,360	0.26%	66.405%	15,046,678	0.65%	65.769%	10,818,489	0.26%	66.014%
0.06%	0.65%	66.913%	39,993,886	0.90%	67.549%	30,584,657	0.90%	67.304%	20,746,734	0.90%	67.304%	15,139,818	0.26%	66.030%	11,006,765	0.65%	66.667%
0.06%	0.90%	67.811%	40,954,650	0.90%	68.448%	30,800,650	0.90%	68.203%	21,696,699	0.26%	67.566%	15,267,154	0.90%	66.929%	11,058,586	0.90%	67.566%
0.26%	0.65%	68.464%	41,947,739	0.26%	68.710%	30,931,338	0.90%	69.101%	22,732,826	0.65%	68.219%	15,723,899	0.90%	67.828%	11,749,601	0.90%	68.464%
0.65%	0.26%	68.726%	42,357,902	0.65%	69.363%	31,385,210	0.90%	70.000%	23,049,174	0.65%	68.872%	15,760,174	0.65%	68.481%	11,781,223	0.26%	68.726%
0.90%	0.90%	69.625%	42,857,277	0.65%	70.016%	31,454,755	0.26%	70.262%	23,836,599	0.90%	69.771%	16,865,993	0.90%	69.379%	12,052,985	0.26%	68.988%
0.65%	0.90%	70.523%	42,915,073	0.90%	70.915%	31,680,991	0.26%	70.523%	24,300,963	0.26%	70.033%	17,306,417	0.90%	70.278%	12,947,752	0.90%	69.887%
0.26%	0.65%	71.177%	43,719,977	0.65%	71.568%	31,708,441	0.65%	71.177%	24,980,573	0.90%	70.931%	17,696,693	0.65%	70.931%	13,184,106	0.26%	70.148%
0.06%	0.65%	71.830%	43,855,214	0.26%	71.830%	32,517,324	0.65%	71.830%	25,531,675	0.26%	71.193%	17,800,818	0.26%	71.193%	13,390,238	0.26%	70.410%
0.06%	0.65%	72.483%	45,385,545	0.26%	72.092%	33,424,696	0.65%	72.483%	25,541,783	0.90%	72.092%	18,109,335	0.65%	71.846%	13,799,962	0.65%	71.063%
0.26%	0.90%	73.382%	46,504,136	0.65%	72.745%	33,764,595	0.65%	73.136%	25,583,709	0.65%	72.745%	19,169,542	0.90%	72.745%	14,189,924	0.26%	71.325%
0.65%	0.65%	74.035%	46,766,578	0.90%	73.643%	33,825,337	0.26%	73.398%	26,540,230	0.26%	73.007%	19,221,001	0.65%	73.398%	14,282,320	0.65%	71.978%
0.90%	0.65%	74.688%	47,004,778	0.65%	74.297%	34,190,029	0.90%	74.297%	27,606,113	0.26%	73.268%	19,737,524	0.90%	74.297%	15,042,024	0.26%	72.240%
0.65%	0.26%	74.950%	51,910,276	0.26%	74.558%	35,143,921	0.26%	74.558%	28,719,099	0.26%	73.530%	19,831,125	0.90%	75.195%	15,408,054	0.90%	73.139%
0.26%	0.65%	75.603%	53,276,561	0.65%	75.212%	37,171,236	0.06%	74.623%	28,867,422	0.90%	74.429%	19,853,492	0.26%	75.457%	15,715,171	0.26%	73.401%
0.06%	0.65%	76.256%	57,861,649	0.65%	75.865%	41,330,876	0.90%	75.521%	31,717,209	0.26%	74.691%	20,484,734	0.26%	75.719%	16,147,130	0.26%	73.662%
0.06%	0.26%	76.518%	58,041,501	0.06%	75.929%	41,546,578	0.65%	76.174%	31,809,178	0.26%	74.952%	20,527,317	0.26%	75.981%	16,194,130	0.65%	74.316%
0.26%	0.90%	77.417%	59,401,452	0.26%	76.191%	42,777,999	0.26%	76.436%	31,816,617	0.26%	75.214%	20,864,298	0.26%	76.242%	16,743,247	0.90%	75.214%
0.65%	0.26%	77.678%	60,015,948	0.26%	76.453%	43,163,226	0.26%	76.698%	32,220,325	0.65%	75.867%	21,235,261	0.06%	76.307%	16,995,930	0.65%	75.867%
0.90%	0.26%	77.940%	60,054,824	0.90%	77.351%	43,555,721	0.26%	76.960%	32,252,939	0.65%	76.521%	21,447,847	0.26%	76.568%	17,093,004	0.65%	76.521%

0.65%	0.65%	78.593%	62,742,382	0.26%	77.613%	43,684,455	0.26%	77.222%	32,617,624	0.65%	77.174%	22,761,220	0.65%	77.222%	17,415,936	0.06%	76.585%
0.26%	0.26%	78.855%	64,467,251	0.65%	78.266%	44,752,843	0.26%	77.483%	33,522,396	0.26%	77.436%	22,811,639	0.65%	77.875%	17,639,671	0.90%	77.483%
0.06%	0.26%	79.117%	65,343,470	0.65%	78.919%	45,813,467	0.26%	77.745%	34,100,064	0.06%	77.500%	23,323,203	0.26%	78.137%	18,028,424	0.26%	77.745%
0.06%	0.26%	79.379%	65,576,579	0.26%	79.181%	46,241,691	0.65%	78.398%	34,159,771	0.90%	78.398%	24,419,131	0.26%	78.398%	18,143,227	0.26%	78.007%
0.26%	0.06%	79.443%	65,590,023	0.26%	79.443%	47,020,818	0.26%	78.660%	34,449,983	0.26%	78.660%	24,499,456	0.26%	78.660%	18,391,079	0.65%	78.660%
0.65%	0.26%	79.705%	66,605,711	0.26%	79.705%	47,727,290	0.65%	79.313%	34,602,305	0.26%	78.922%	25,008,796	0.26%	78.922%	18,499,631	0.65%	79.313%
0.90%	0.26%	79.967%	66,664,938	0.26%	79.967%	48,489,444	0.26%	79.575%	35,824,561	0.65%	79.575%	25,224,596	0.65%	79.575%	19,022,294	0.26%	79.575%
0.65%	0.26%	80.228%	69,692,243	0.26%	80.228%	48,536,230	0.26%	79.837%	35,984,234	0.26%	79.837%	25,599,537	0.65%	80.228%	19,304,544	0.65%	80.228%
0.26%	0.26%	80.490%	69,955,189	0.26%	80.490%	48,599,140	0.65%	80.490%	37,303,268	0.65%	80.490%	27,816,579	0.26%	80.490%	19,574,810	0.06%	80.293%
0.06%	0.65%	81.143%	71,208,443	0.26%	80.752%	51,498,238	0.26%	80.752%	37,777,031	0.90%	81.389%	29,822,500	0.26%	80.752%	19,624,440	0.26%	80.554%
0.06%	0.65%	81.797%	71,540,434	0.65%	81.405%	56,194,903	0.65%	81.405%	38,644,445	0.65%	82.042%	30,840,073	0.06%	80.816%	20,087,155	0.26%	80.816%
0.26%	0.26%	82.058%	71,607,975	0.06%	81.469%	56,984,301	0.65%	82.058%	39,072,870	0.26%	82.304%	31,028,848	0.26%	81.078%	21,123,942	0.26%	81.078%
0.65%	0.90%	82.957%	71,838,476	0.26%	81.731%	57,271,269	0.06%	82.123%	39,839,114	0.06%	82.368%	31,236,839	0.65%	81.731%	22,369,397	0.26%	81.340%
0.90%	0.06%	83.021%	78,516,388	0.65%	82.384%	57,401,394	0.90%	83.021%	40,389,254	0.06%	82.432%	31,335,797	0.65%	82.384%	23,864,880	0.65%	81.993%
0.65%	0.06%	83.085%	79,591,629	0.06%	82.449%	61,028,743	0.65%	83.674%	42,098,659	0.26%	82.694%	31,695,437	0.06%	82.449%	25,376,531	0.65%	82.646%
0.26%	0.26%	83.347%	83,835,145	0.65%	83.102%	62,499,743	0.26%	83.936%	42,221,476	0.26%	82.956%	31,894,318	0.65%	83.102%	25,791,951	0.06%	82.710%
0.06%	0.65%	84.000%	84,692,502	0.90%	84.000%	62,917,706	0.65%	84.589%	42,376,408	0.65%	83.609%	32,719,568	0.26%	83.364%	26,750,519	0.65%	83.364%
0.06%	0.65%	84.654%	86,326,488	0.26%	84.262%	64,412,476	0.06%	84.654%	42,717,171	0.65%	84.262%	36,223,133	0.65%	84.017%	26,789,458	0.06%	83.428%
0.26%	0.26%	84.915%	87,215,570	0.65%	84.915%	64,433,795	0.26%	84.915%	49,667,034	0.65%	84.915%	36,600,190	0.26%	84.279%	26,851,705	0.90%	84.326%
0.65%	0.65%	85.569%	89,806,358	0.65%	85.569%	65,790,390	0.65%	85.569%	50,849,975	0.65%	85.569%	36,810,944	0.90%	85.177%	26,994,121	0.65%	84.980%
0.90%	0.06%	85.633%	92,445,811	0.26%	85.830%	67,402,806	0.26%	85.830%	51,182,582	0.65%	86.222%	37,341,372	0.06%	85.241%	28,262,745	0.65%	85.633%
0.65%	0.65%	86.286%	93,591,482	0.26%	86.092%	68,281,091	0.26%	86.092%	51,828,747	0.26%	86.484%	37,615,914	0.65%	85.895%	28,878,236	0.26%	85.895%
0.26%	0.26%	86.548%	95,635,892	0.06%	86.156%	70,434,922	0.65%	86.745%	51,837,777	0.65%	87.137%	38,600,433	0.06%	85.959%	29,677,078	0.26%	86.156%
0.06%	0.90%	87.446%	97,123,516	0.65%	86.810%	71,274,949	0.06%	86.810%	53,582,750	0.26%	87.399%	40,157,650	0.06%	86.023%	29,955,036	0.65%	86.810%
0.06%	0.26%	87.708%	97,363,985	0.90%	87.708%	74,746,531	0.65%	87.463%	53,758,771	0.06%	87.463%	40,710,414	0.65%	86.676%	29,955,688	0.65%	87.463%
0.26%	0.90%	88.607%	101,717,279	0.65%	88.361%	75,626,818	0.90%	88.361%	55,869,461	0.65%	88.116%	41,974,654	0.65%	87.329%	31,135,633	0.06%	87.527%
0.65%	0.65%	89.260%	102,114,115	0.06%	88.426%	78,629,033	0.65%	89.015%	57,761,335	0.90%	89.015%	42,510,295	0.65%	87.983%	31,557,820	0.90%	88.426%
0.90%	0.65%	89.913%	104,983,608	0.65%	89.079%	80,128,279	0.65%	89.668%	59,403,538	0.06%	89.079%	42,859,679	0.06%	88.047%	32,133,076	0.65%	89.079%
0.65%	0.26%	90.175%	108,566,812	0.90%	89.977%	80,766,430	0.06%	89.732%	59,488,879	0.06%	89.143%	43,273,680	0.90%	88.945%	33,128,702	0.06%	89.143%
0.26%	0.65%	90.828%	116,557,955	0.26%	90.239%	87,833,879	0.26%	89.994%	60,273,601	0.90%	90.042%	47,655,191	0.26%	89.207%	33,991,514	0.06%	89.207%
0.06%	0.26%	91.090%	117,032,594	0.06%	90.303%	88,077,263	0.90%	90.892%	63,293,250	0.06%	90.106%	49,092,350	0.06%	89.271%	36,100,405	0.06%	89.271%
0.06%	0.26%	91.352%	118,737,110	0.26%	90.565%	91,051,741	0.26%	91.154%	63,438,604	0.06%	90.170%	50,500,106	0.06%	89.336%	36,866,811	0.26%	89.533%
0.26%	0.06%	91.416%	120,351,276	0.06%	90.629%	93,352,795	0.06%	91.218%	66,672,828	0.26%	90.432%	51,850,205	0.06%	89.400%	37,369,377	0.06%	89.597%
0.65%	0.06%	91.480%	128,168,284	0.26%	90.891%	93,761,637	0.26%	91.480%	67,100,116	0.06%	90.496%	52,464,732	0.06%	89.464%	38,147,106	0.06%	89.662%
0.90%	0.06%	91.544%	129,544,589	0.65%	91.544%	95,616,678	0.06%	91.544%	71,634,735	0.65%	91.149%	53,069,920	0.26%	89.726%	39,112,296	0.06%	89.726%
0.65%	0.06%	91.609%	133,568,594	0.06%	91.609%	96,953,528	0.06%	91.609%	71,786,742	0.26%	91.411%	53,380,079	0.06%	89.790%	39,200,065	0.65%	90.379%
0.26%	0.06%	91.673%	134,948,936	0.06%	91.673%	97,734,772	0.06%	91.673%	72,831,252	0.06%	91.475%	54,049,254	0.90%	90.689%	39,677,265	0.06%	90.443%
0.06%	0.06%	91.737%	135,701,023	0.06%	91.737%	99,088,358	0.06%	91.737%	73,374,914	0.06%	91.539%	55,842,444	0.26%	90.950%	40,154,630	0.06%	90.507%
0.06%	0.06%	91.801%	141,297,114	0.06%	91.801%	101,686,597	0.06%	91.801%	73,483,312	0.06%	91.604%	58,420,649	0.06%	91.015%	40,484,082	0.90%	91.406%
0.26%	0.06%	91.865%	144,234,814	0.06%	91.865%	102,712,109	0.06%	91.865%	74,695,950	0.06%	91.668%	58,509,985	0.06%	91.079%	40,843,151	0.06%	91.470%
0.65%	0.06%	91.930%	148,111,217	0.06%	91.930%	102,830,983	0.06%	91.930%	75,491,799	0.06%	91.732%	59,402,431	0.65%	91.732%	41,069,998	0.06%	91.534%
0.90%	0.06%	91.994%	148,896,100	0.06%	91.994%	103,867,794	0.06%	91.994%	77,637,296	0.26%	91.994%	59,714,203	0.26%	91.994%	41,267,772	0.06%	91.599%
0.65%	0.06%	92.058%	150,726,986	0.26%	92.256%	112,914,811	0.26%	92.256%	77,641,794	0.06%	92.058%	60,774,962	0.06%	92.058%	42,086,395	0.06%	91.663%
0.26%	0.90%	92.957%	150,917,956	0.06%	92.320%	114,494,390	0.06%	92.320%	77,897,514	0.06%	92.122%	62,359,716	0.06%	92.122%	42,190,495	0.26%	91.925%
0.06%	0.26%	93.218%	151,430,283	0.90%	93.218%	116,823,424	0.06%	92.384%	78,753,240	0.26%	92.384%	66,872,657	0.06%	92.186%	44,917,503	0.26%	92.186%
0.06%	0.26%	93.480%	153,151,107	0.06%	93.283%	117,007,307	0.26%	92.646%	82,958,099	0.26%	92.646%	68,236,922	0.26%	92.448%	50,315,434	0.26%	92.448%
0.26%	0.26%	93.742%	155,723,672	0.26%	93.544%	117,907,296	0.06%	92.710%	91,518,537	0.65%	93.299%	71,437,699	0.26%	92.710%	51,421,896	0.26%	92.710%
0.65%	0.06%	93.806%	156,349,970	0.06%	93.609%	121,053,952	0.90%	93.609%	94,463,466	0.06%	93.363%	72,681,121	0.26%	92.972%	54,689,377	0.65%	93.363%
0.90%	0.65%	94.459%	158,088,865	0.65%	94.262%	122,549,867	0.26%	93.870%	95,437,645	0.26%	93.625%	73,998,298	0.26%	93.234%	56,831,388	0.26%	93.625%
0.65%	0.26%	94.721%	158,854,151	0.26%	94.524%	132,876,548	0.26%	94.132%	99,931,671	0.26%	93.887%	74,760,455	0.26%	93.495%	60,883,138	0.26%	93.887%
0.26%	0.06%	94.785%	169,371,783	0.26%	94.785%	134,981,212	0.26%	94.394%	100,648,558	0.90%	94.785%	76,691,255	0.65%	94.149%	61,378,221	0.06%	93.951%
0.06%	0.26%	95.047%	185,169,975	0.06%	94.850%	136,991,809	0.65%	95.047%	102,191,503	0.26%	95.047%	76,970,094	0.90%	95.047%	62,178,690	0.26%	94.213%
0.06%	0.26%	95.309%	189,113,923	0.26%	95.111%	141,401,280	0.06%	95.111%	108,021,273	0.06%	95.111%	81,391,984	0.06%	95.111%	62,519,236	0.06%	94.277%
0.26%	0.06%	95.373%	196,300,934	0.26%	95.373%	141,753,731	0.26%	95.373%	112,534,003	0.26%	95.373%	83,179,014	0.06%	95.176%	62,994,399	0.26%	94.539%
0.65%	0.26%	95.635%	198,774,962	0.26%	95.635%	147,931,763	0.06%	95.437%	114,997,550	0.06%	95.437%	83,300,235	0.26%	95.437%	65,012,301	0.90%	95.437%
0.90%	0.65%	96.288%	201,055,185	0.06%	95.699%	149,083,465	0.26%	95.699%	117,595,201	0.26%	95.699%	84,583,117	0.06%	95.502%	69,180,444	0.06%	95.502%
0.65%	0.65%	96.941%	202,702,503	0.06%	95.763%	155,133,918	0.06%	95.763%	118,508,614	0.26%	95.961%	92,566,267	0.26%	95.763%	69,676,576	0.26%	95.763%
0.26%	0.06%	97.006%	206,808,618	0.65%	96.417%	163,890,665	0.65%	96.417%	130,719,447	0.06%	96.025%	97,290,613	0.65%	96.417%	73,487,162	0.65%	96.417%
0.06%	0.06%	97.070%	213,983,411	0.65%	97.070%	170,789,538	0.26%	96.678%	131,859,188	0.65%	96.678%	99,741,563	0.26%	96.678%	74,406,443	0.06%	96.481%
0.06%	0.26%	97.332%	215,615,829	0.06%	97.134%	174,209,941	0.65%	97.332%	133,894,022	0.06%	96.743%	102,061,910	0.06%	96.743%	80,783,346	0.26%	96.743%
0.26%	0.06%	97.396%	230,951,323	0.26%	97.396%	180,455,350	0.06%	97.396%	134,879,059	0.65%	97.396%	103,653,430	0.65%	97.396%	83,039,821	0.65%	97.396%
0.65%	0.06%	97.460%	242,785,877	0.06%	97.460%	190,229,874	0.06%	97.460%	137,907,759	0.06%	97.460%	113,282,091	0.06%	97.460%	86,486,115	0.06%	97.460%
0.90%	0.06%	97.524%	248,935,428	0.06%	97.524%	200,386,869	0.06%	97.524%	140,936,052	0.06%	97.524%	116,682,911	0.06%	97.524%	88,868,273	0.06%	97.524%
0.65%	0.06%	97.588%	283,461,232	0.06%	97.588%	230,552,314	0.06%	97.588%	155,128,676	0.06%	97.588%	135,158,712	0.06%	97.588%	101,024,244	0.06%	97.588%
0.26%	0.26%	97.850%	299,664,323	0.06%	97.653%	235,160,160	0.06%	97.653%	167,090,663	0.26%	97.850%	147,156,040	0.06%	97.653%	106,228,953	0.06%	97.653%
0.06%	0.65%	98.503%	302,602,027	0.26%	97.914%	235,298,117	0.26%	97.914%	192,497,037	0.06%	97.914%	149,379,907	0.06%	97.717%	111,802,133	0.06%	97.717%
0.06%	0.06%	98.568%	311,101,806	0.65%	98.568%	243,342,777	0.65%	98.568%	201,486,545	0.06%	97.979%	151,895,390	0.06%	97.781%	114,467,611	0.06%	97.781%
0.26%	0.06%	98.632%	340,926,613	0.06%	98.632%	264,942,011	0.06%	98.632%	203,788,708	0.06%	98.043%	156,285,001	0.26%	98.043%	116,443,067	0.06%	97.845%
0.65%	0.06%	98.696%	341,681,377	0.06%	98.696%	271,652,561	0.06%	98.696%	206,173,066	0.06%	98.107%	161,570,013	0.06%	98.107%	119,137,176	0.26%	98.107%
0.90%	0.26%	98.958%	347,285,376	0.06%	98.760%	272,051,114	0.06%	98.760%	212,732,284	0.65%	98.760%	168,742,908	0.65%	98.760%	130,903,326	0.26%	98.369%
0.65%	0.06%	99.022%	353,395,986	0.06%	98.824%	300,295,896	0.06%	98.824%	214,608,554	0.06%	98.824%	183,558,371	0.06%	98.824%	136,053,927	0.06%	98.433%
0.26%	0.06%	99.086%	385,044,727	0.26%	99.086%	309,868,424	0.26%	99.086%	224,142,797	0.26%	99.086%	186,062,317	0.06%	98.889%	150,450,284	0.65%	99.086%
0.06%	0.26%	99.348%	399,693,199	0.26%	99.348%	314,219,761	0.26%	99.348%	238,104,996	0.26%	99.348%	191,436,141	0.26%	99.150%	152,168,260	0.06%	99.150%
0.06%	0.06%	99.412%	460,282,663	0.06%	99.412%	344,515,081	0.06%	99.412%	268,008,297	0.06%	99.412%	199,154,207	0.26%	99.412%	167,566,242	0.06%	99.215%
0.26%	0.06%	99.476%	466,081,786	0.06%	99.476%	363,621,967	0.06%	99.476%	271,294,695	0.06%	99.476%	206,225,678	0.06%	99.476%	172,134,297	0.26%	99.476%
0.65%	0.26%	99.738%	537,838,521	0.26%	99.738%	469,802,311	0.06%	99.541%	381,277,635	0.06%	99.541%	327,831,250	0.06%	99.541%	242,850,608	0.06%	99.541%
0.90%	0.06%	99.802%	615,380,265	0.06%	99.802%	513,314,629	0.26%	99.802%	387,633,550	0.26%	99.802%	331,002,392	0.26%	99.802%	279,506,348	0.26%	99.802%
0.65%	0.06%	99.867%	650,835,710	0.06%	99.867%	552,330,954	0.06%	99.867%	441,995,675	0.06%	99.867%	388,678,955	0.06%	99.867%	321,952,048	0.06%	99.867%
0.26%	0.06%	99.931%	779,715,460	0.06%	99.931%	667,618,877	0.06%	99.931%	484,605,555	0.06%	99.931%	408,070,041	0.06%	99.931%	322,452,330	0.06%	99.931%
0.06%	0.06%	99.995%	952,079,761	0.06%	99.995%	828,072,605	0.06%	99.995%	677,600,321	0.06%	99.995%	592,706,053	0.06%	99.995%	490,592,809	0.06%	99.995%

16.21%	17.20%	17.20%	17.20%	18.18%	18.18%	18.18%	19.16%	19.16%	19.16%	20.14%	20.14%	20.14%	21.13%	21.13%	21.13%	23.09%	23.09%	23.09%
Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure	Probability	Cumu Prob	Exposure
78,845	0.06%	0.064%	60,241	0.06%	0.064%	48,967	0.06%	0.064%	46,465	0.06%	0.064%	47,322	0.06%	0.064%	49,652	0.06%	0.064%	48,479
85,288	0.06%	0.128%	72,077	0.06%	0.128%	71,608	0.06%	0.128%	46,701	0.06%	0.128%	51,734	0.06%	0.128%	53,553	0.06%	0.128%	52,567
93,364	0.06%	0.193%	75,532	0.06%	0.193%	90,702	0.06%	0.193%	51,288	0.06%	0.193%	55,382	0.06%	0.193%	56,045	0.06%	0.193%	53,432
119,483	0.06%	0.257%	82,488	0.06%	0.257%	92,986	0.06%	0.257%	60,576	0.06%	0.257%	61,517	0.06%	0.257%	58,390	0.06%	0.257%	58,984
128,346	0.06%	0.321%	93,706	0.06%	0.321%	96,335	0.06%	0.321%	67,434	0.06%	0.321%	72,681	0.26%	0.519%	76,043	0.06%	0.321%	72,369
129,148	0.26%	0.583%	98,696	0.06%	0.385%	104,517	0.06%	0.385%	79,263	0.06%	0.385%	81,888	0.06%	0.583%	77,799	0.26%	0.583%	79,960
132,172	0.06%	0.647%	104,128	0.26%	0.647%	104,971	0.06%	0.449%	88,852	0.06%	0.449%	82,991	0.06%	0.647%	79,019	0.06%	0.647%	80,711
140,282	0.06%	0.711%	109,574	0.26%	0.909%	106,002	0.06%	0.514%	92,035	0.26%	0.711%	84,368	0.26%	0.909%	81,315	0.26%	0.909%	80,860
144,192	0.06%	0.775%	122,233	0.06%	0.973%	108,852	0.26%	0.775%	92,200	0.06%	0.775%	87,179	0.06%	0.973%	93,356	0.26%	1.171%	82,131
149,126	0.06%	0.840%	132,501	0.06%	1.037%	117,146	0.06%	0.840%	97,578	0.26%	1.037%	87,340	0.06%	1.037%	93,797	0.06%	1.235%	85,784
157,699	0.06%	0.904%	140,677	0.06%	1.101%	122,818	0.06%	0.904%	104,217	0.06%	1.101%	90,041	0.06%	1.101%	97,721	0.06%	1.299%	86,830
157,803	0.06%	0.968%	145,484	0.06%	1.166%	124,191	0.06%	0.968%	111,694	0.06%	1.166%	96,895	0.06%	1.166%	101,203	0.06%	1.363%	87,604
160,071	0.06%	1.032%	145,520	0.06%	1.230%	124,395	0.26%	1.230%	113,751	0.06%	1.230%	97,142	0.06%	1.230%	101,606	0.26%	1.625%	93,410
179,042	0.06%	1.096%	173,008	0.06%	1.294%	134,153	0.26%	1.492%	113,829	0.06%	1.294%	98,892	0.06%	1.294%	102,959	0.06%	1.689%	94,827
194,361	0.26%	1.358%	178,228	0.26%	1.556%	139,581	0.06%	1.556%	118,946	0.26%	1.556%	100,450	0.06%	1.358%	103,932	0.06%	1.753%	95,075
198,542	0.06%	1.422%	179,309	0.06%	1.620%	148,928	0.06%	1.620%	122,623	0.06%	1.620%	100,801	0.06%	1.422%	105,444	0.06%	1.818%	95,919
205,691	0.06%	1.487%	181,342	0.06%	1.684%	152,385	0.06%	1.684%	125,742	0.06%	1.684%	106,138	0.26%	1.684%	108,571	0.06%	1.882%	98,213
207,651	0.06%	1.551%	190,853	0.06%	1.748%	154,184	0.06%	1.748%	129,433	0.06%	1.748%	106,156	0.06%	1.748%	112,796	0.06%	1.946%	100,409
229,520	0.06%	1.615%	205,462	0.26%	2.010%	155,775	0.06%	1.813%	129,742	0.06%	1.813%	112,628	0.06%	1.813%	117,154	0.06%	2.010%	100,985
243,685	0.26%	1.877%	218,881	0.06%	2.074%	156,216	0.06%	1.877%	130,457	0.26%	2.074%	115,248	0.65%	2.466%	118,832	0.06%	2.074%	106,641
275,320	0.06%	1.941%	222,973	0.06%	2.139%	156,263	0.65%	2.530%	132,368	0.06%	2.139%	131,519	0.06%	2.530%	128,271	0.65%	2.728%	109,489
318,178	0.06%	2.005%	226,152	0.26%	2.400%	176,868	0.06%	2.594%	136,338	0.06%	2.203%	132,374	0.26%	2.792%	128,619	0.06%	2.792%	110,174
326,882	0.06%	2.069%	228,487	0.26%	2.662%	185,922	0.06%	2.658%	142,570	0.65%	2.856%	134,259	0.26%	3.054%	134,630	0.06%	2.856%	117,221
327,950	0.06%	2.134%	231,459	0.06%	2.726%	187,593	0.26%	2.920%	153,704	0.26%	3.118%	135,681	0.06%	3.118%	136,830	0.65%	3.509%	117,966
348,210	0.26%	2.395%	242,174	0.26%	2.988%	200,586	0.26%	3.182%	153,891	0.06%	3.182%	136,766	0.26%	3.380%	137,016	0.26%	3.771%	118,076
349,422	0.65%	3.049%	243,497	0.65%	3.641%	203,697	0.06%	3.246%	154,443	0.06%	3.246%	140,755	0.06%	3.444%	140,058	0.06%	3.835%	121,232
351,103	0.06%	3.113%	245,357	0.06%	3.706%	207,348	0.26%	3.508%	159,900	0.26%	3.508%	143,126	0.26%	3.706%	142,791	0.26%	4.097%	122,086
357,839	0.26%	3.375%	249,080	0.06%	3.770%	217,856	0.06%	3.572%	170,007	0.26%	3.770%	147,043	0.65%	4.359%	142,823	0.65%	4.750%	123,419
358,840	0.26%	3.636%	271,407	0.06%	3.834%	218,393	0.26%	3.834%	183,554	0.26%	4.032%	156,404	0.26%	4.621%	147,436	0.26%	5.012%	124,036
370,648	0.06%	3.701%	284,603	0.26%	4.096%	223,235	0.26%	4.096%	188,500	0.26%	4.293%	160,365	0.26%	4.882%	148,455	0.26%	5.274%	128,424
381,095	0.26%	3.962%	301,086	0.26%	4.358%	224,069	0.06%	4.160%	189,260	0.06%	4.358%	160,630	0.06%	4.947%	149,387	0.26%	5.536%	133,429
415,608	0.06%	4.027%	324,387	0.06%	4.422%	226,623	0.65%	4.813%	192,116	0.06%	4.422%	164,171	0.26%	5.208%	150,933	0.06%	5.600%	134,687
417,286	0.26%	4.288%	340,935	0.26%	4.684%	233,867	0.26%	5.075%	204,853	0.65%	5.075%	165,518	0.06%	5.273%	151,548	0.06%	5.664%	140,123
439,773	0.26%	4.550%	351,760	0.26%	4.945%	238,821	0.26%	5.337%	214,531	0.26%	5.337%	170,922	0.26%	5.534%	152,128	0.26%	5.926%	140,654
449,126	0.26%	4.812%	358,273	0.26%	5.207%	244,554	0.26%	5.599%	220,578	0.65%	5.990%	171,913	0.65%	6.188%	158,829	0.65%	6.579%	143,091
474,319	0.26%	5.074%	380,164	0.26%	5.469%	247,265	0.26%	5.860%	223,395	0.06%	6.054%	181,937	0.26%	6.449%	164,297	0.26%	6.841%	148,369
474,809	0.26%	5.336%	381,012	0.26%	5.731%	247,614	0.65%	6.514%	230,985	0.26%	6.316%	192,920	0.06%	6.514%	166,453	0.26%	7.103%	155,807
483,159	0.26%	5.597%	383,492	0.06%	5.795%	258,066	0.26%	6.775%	236,892	0.26%	6.578%	206,337	0.26%	6.775%	170,079	0.06%	7.167%	156,506
487,532	0.65%	6.251%	396,476	0.65%	6.448%	259,646	0.06%	6.840%	236,990	0.26%	6.840%	208,583	0.26%	7.037%	173,555	0.06%	7.231%	158,162
497,828	0.26%	6.512%	408,939	0.26%	6.710%	262,850	0.26%	7.101%	249,897	0.26%	7.101%	210,663	0.65%	7.690%	173,940	0.06%	7.295%	160,958
515,315	0.26%	6.774%	431,468	0.65%	7.363%	307,200	0.06%	7.166%	250,545	0.26%	7.363%	213,272	0.26%	7.952%	176,238	0.26%	7.557%	161,239
535,477	0.26%	7.036%	452,687	0.06%	7.427%	319,684	0.65%	7.819%	253,624	0.06%	7.427%	213,615	0.06%	8.016%	181,857	0.26%	7.819%	163,460
543,580	0.65%	7.689%	453,355	0.26%	7.689%	320,415	0.26%	8.081%	272,920	0.26%	7.689%	215,975	0.26%	8.278%	183,844	0.26%	8.081%	164,705
550,050	0.06%	7.753%	465,366	0.06%	7.753%	325,693	0.26%	8.342%	274,103	0.06%	7.753%	220,764	0.26%	8.540%	195,157	0.06%	8.145%	164,732
575,630	0.06%	7.818%	467,251	0.65%	8.407%	335,686	0.65%	8.996%	281,856	0.06%	7.818%	228,855	0.65%	9.193%	199,864	0.26%	8.407%	166,963
591,592	0.06%	7.882%	469,780	0.06%	8.471%	336,652	0.06%	9.060%	296,938	0.26%	8.079%	239,904	0.26%	9.455%	201,481	0.26%	8.668%	167,186
596,632	0.26%	8.144%	471,877	0.26%	8.733%	340,010	0.65%	9.713%	302,973	0.26%	8.341%	247,730	0.26%	9.717%	208,028	0.90%	9.567%	167,365
600,398	0.65%	8.797%	508,648	0.26%	8.994%	368,816	0.06%	9.777%	308,976	0.26%	8.603%	252,553	0.06%	9.781%	213,208	0.06%	9.631%	176,298
605,848	0.06%	8.861%	509,243	0.06%	9.059%	369,813	0.06%	9.841%	309,958	0.26%	8.865%	257,052	0.06%	9.845%	219,931	0.65%	10.284%	178,501
615,840	0.65%	9.514%	516,594	0.26%	9.320%	376,907	0.90%	10.740%	320,038	0.65%	9.518%	266,344	0.06%	9.909%	225,564	0.90%	11.183%	182,506
627,017	0.26%	9.776%	525,302	0.06%	9.385%	398,019	0.26%	11.002%	324,560	0.06%	9.582%	266,464	0.65%	10.563%	226,203	0.26%	11.445%	183,538
641,567	0.26%	10.038%	537,548	0.06%	9.449%	402,980	0.65%	11.655%	331,300	0.06%	9.646%	271,391	0.65%	11.216%	234,037	0.06%	11.509%	185,102
650,225	0.06%	10.102%	539,808	0.65%	10.102%	423,095	0.65%	12.308%	335,680	0.65%	10.300%	274,984	0.06%	11.280%	236,770	0.26%	11.771%	198,285
652,317	0.65%	10.755%	582,234	0.65%	10.755%	426,910	0.26%	12.570%	338,430	0.65%	10.953%	277,287	0.65%	11.933%	242,422	0.65%	12.424%	199,343
658,233	0.65%	11.408%	593,526	0.65%	11.408%	427,771	0.06%	12.634%	341,180	0.65%	11.606%	280,895	0.90%	12.832%	245,817	0.65%	13.077%	203,120
664,238	0.26%	11.670%	596,562	0.65%	12.062%	428,645	0.65%	13.287%	345,675	0.65%	12.259%	305,413	0.26%	13.094%	246,272	0.06%	13.141%	204,522
714,595	0.65%	12.323%	598,707	0.26%	12.323%	430,413	0.26%	13.549%	351,166	0.26%	12.521%	315,409	0.65%	13.747%	249,542	0.06%	13.206%	211,853
782,415	0.65%	12.977%	599,331	0.65%	12.977%	441,695	0.26%	13.811%	352,507	0.06%	12.585%	320,604	0.26%	14.009%	252,586	0.65%	13.859%	212,037
937,695	0.90%	13.875%	613,492	0.65%	13.630%	461,781	0.26%	14.073%	356,193	0.26%	12.847%	333,407	0.65%	14.662%	253,872	0.65%	14.512%	213,355
950,367	0.26%	14.137%	636,098	0.06%	13.694%	490,730	0.90%	14.971%	408,895	0.65%	13.500%	334,047	0.26%	14.924%	260,655	0.65%	15.165%	216,793
954,407	0.65%	14.790%	650,695	0.26%	13.956%	504,670	0.65%	15.625%	411,887	0.65%	14.153%	341,430	0.90%	15.822%	264,127	0.26%	15.427%	217,733
957,159	0.26%	15.052%	652,391	0.65%	14.609%	515,601	0.65%	16.278%	428,558	0.90%	15.052%	341,450	0.65%	16.475%	264,274	0.65%	16.080%	221,153
972,138	0.65%	15.705%	666,423	0.65%	15.262%	518,401	0.65%	16.931%	431,309	0.26%	15.314%	342,569	0.90%	17.374%	264,378	0.65%	16.733%	223,157
982,406	0.90%	16.604%	675,575	0.65%	15.915%	519,211	0.06%	16.995%	445,324	0.65%	15.967%	349,514	0.65%	18.027%	265,512	0.06%	16.798%	224,218
1,005,407	0.65%	17.257%	716,629	0.65%	16.569%	538,219	0.65%	17.648%	451,552	0.26%	16.229%	351,145	0.06%	18.091%	265,818	0.65%	17.451%	224,293
1,039,535	0.65%	17.910%	717,942	0.26%	16.830%	540,619	0.26%	17.910%	460,982	0.06%	16.293%	353,121	0.06%	18.156%	280,850	0.90%	18.349%	227,468
1,061,573	0.65%	18.563%	724,759	0.65%	17.484%	588,103	0.90%	18.809%	461,455	0.06%	16.357%	362,883	0.26%	18.417%	289,146	0.26%	18.611%	232,375
1,094,372	0.26%	18.825%	762,308	0.90%	18.382%	601,497	0.26%	19.071%	465,052	0.06%	16.421%	366,024	0.90%	19.316%	314,827	0.65%	19.264%	234,757
1,097,203	0.06%	18.889%	787,080	0.06%	18.446%	602,041	0.65%	19.724%	466,140	0.65%	17.075%	367,704	0.65%	19.969%	324,886	0.26%	19.526%	237,551
1,144,422	0.65%	19.543%	789,080	0.26%	18.708%	615,163	0.65%	20.377%	471,795	0.90%	17.973%	377,250	0.65%	20.622%	333,441	0.26%	19.788%	243,374
1,184,669	0.26%	19.804%	840,234	0.65%	19.361%	633,591	0.06%	20.441%	491,851	0.65%	18.626%	377,367	0.65%	21.276%	339,641	0.90%	20.687%	245,863
1,197,727	0.26%	20.066%	859,437	0.90%	20.260%	663,863	0.90%	21.340%	498,858	0.65%	19.280%	379,157	0.65%	21.929%	341,556	0.65%	21.340%	250,414
1,199,381	0.65%	20.719%	863,950	0.26%	20.522%	672,749	0.26%	21.602%	501,548	0.26%	19.541%	386,178	0.65%	22.582%	348,562	0.65%	21.993%	250,847
1,224,835	0.65%	21.373%	871,839	0.26%	20.784%	694,095	0.90%	22.500%	535,853	0.90%	20.440%	396,274	0.26%	22.844%	351,154	0.26%	22.255%	263,767
1,242,881	0.90%	22.271%	922,649	0.65%	21.437%	700,478	0.26%	22.762%	539,551	0.26%	20.702%	429,397	0.06%	22.908%	367,381	0.06%	22.319%	276,494
1,325,249	0.90%	23.170%	930,932	0.26%	21.699%	744,558	0.65%	23.415%	568,239	0.26%	20.964%	461,124	0.26%	23.170%	397,558	0.06%	22.383%	278,183
1,354,365	0.06%	23.234%	973,098	0.90%	22.597%	784,187	0.65%	24.068%	590,872	0.90%	21.862%	473,739	0.90%	24.068%	403,888	0.90%	23.282%	278,754
1,407,994	0.90%	24.133%	979,196	0.65%	23.250%	800,832	0.06%	24.133%	595,265	0.65%	22.515%	475,156	0.26%	24.330%	404,313	0.26%	23.544%	279,422
1,410,021	0.26%	24.394%	994,459	0.65%	23.904%	830,422	0.26%	24.394%	619,698	0.65%	23.169%	485,105	0.06%	24.394%	404,717	0.65%	24.197%	282,723
1,432,672	0.26%	24.656%	1,072,694	0.26%	24.165%	836,265	0.90%	25.293%	626,805	0.26%	23.430%	506,483	0.65%	25.048%	409,507	0.65%	24.850%	287,993
1,465,261	0.26%	24.918%	1,074,153	0.65%	24.819%	848,504	0.90%	26.192%	641,566	0.65%	24.084%	512,503	0.26%	25.309%	410,720	0.26%	25.112%	297,802
1,474,018	0.06%	24.982%	1,085,127	0.26%	25.080%	852,705	0.26%	26.453%	655,192	0.26%	24.345%	512,682	0.90%	26.208%	413,034	0.26%	25.374%	304,200
1,486,359	0.06%	25.046%	1,107,122	0.65%	25.734%	872,906	0.65%	27.107%	656,433	0.26%	24.607%	544,601	0.26%	26.470%	418,846	0.65%	26.027%	307,341
1,602,151	0.90%	25.945%	1,164,439	0.90%	26.632%	879,292	0.26%	27.368%	658,778	0.65%	25.260%	546,457	0.65%	27.123%	448,433	0.26%	26.289%	309,784
1,709,894	0.90%	26.844%	1,182,596	0.26%	26.894%	885,472	0.06%	27.433%	687,817	0.90%	26.159%	547,953	0.65%	27.776%	494,338	0.90%	27.187%	310,166
1,777,700	0.26%	27.105%	1,240,992	0.06%	26.958%	891,978	0.90%	28.331%	710,978	0.90%	27.058%	548,124	0.90%	28.675%	495,137	0.65%	27.840%	315,101
1,781,860	0.65%	27.759%	1,254,385	0.90%	27.857%	919,922	0.06%	28.395%	721,928	0.65%	27.711%	552,395	0.65%	29.328%	507,685	0.90%	28.739%	317,930
1,897,125	0.65%	28.412%	1,330,798	0.06%	27.921%	954,305	0.90%	29.294%	722,786	0.90%	28.609%	560,538	0.26%	29.590%	509,066	0.65%	29.392%	324,718
1,961,114	0.65%	29.065%	1,404,136	0.65%	28.574%	1,001,463	0.06%	29.358%	757,442	0.65%	29.263%	566,277	0.90%	30.488%	513,519	0.65%	30.045%	332,706
1,975,900	0.26%	29.327%	1,481,778	0.90%	29.473%	1,052,384	0.90%	30.257%	766,821	0.65%	29.916%	587,779	0.90%	31.387%	529,392	0.06%	30.110%	332,815
2,105,330	0.65%	29.980%	1,496,210	0.90%	30.371%	1,055,238	0.26%	30.519%	803,274	0.90%	30.814%	599,816	0.90%	32.286%	532,256	0.90%	31.008%	355,028
2,126,850	0.90%	30.879%	1,516,099	0.65%	31.025%	1,056,206	0.65%	31.172%	834,971	0.90%	31.713%	607,654	0.26%	32.547%	538,784	0.90%	31.907%	365,235
2,134,834	0.90%	31.777%	1,532,078	0.65%	31.678%	1,081,478	0.90%	32.070%	842,457	0.90%	32.612%	630,454	0.06%	32.612%	550,479	0.65%	32.560%	382,576
2,143,785	0.90%	32.676%	1,538,517	0.26%	31.940%	1,106,554	0.65%	32.724%	852,646	0.06%	32.676%	637,122	0.65%	33.265%	558,756	0.90%	33.459%	387,111
2,245,953	0.90%	33.574%	1,551,564	0.90%	32.838%	1,114,566	0.26%	32.985%	878,654	0.65%	33.329%	639,918	0.06%	33.329%	577,960	0.65%	34.112%	394,122
2,307,842	0.65%	34.228%	1,577,719	0.90%	33.737%	1,131,559	0.90%	33.884%	887,783	0.65%	33.982%	640,555	0.06%	33.393%	583,621	0.90%	35.010%	394,436
2,324,429	0.65%	34.881%	1,739,610	0.90%	34.635%	1,157,872	0.90%	34.783%	891,175	0.06%	34.046%	648,638	0.90%	34.292%	587,289	0.65%	35.664%	397,962
2,394,733	0.90%	35.779%	1,763,608	0.90%	35.534%	1,255,849	0.65%	35.436%	904,157	0.90%	34.945%	653,925	0.26%	34.554%	607,901	0.06%	35.728%	399,503
2,487,006	0.65%	36.433%	1,844,846	0.90%	36.433%	1,258,305	0.65%	36.089%	906,153	0.90%	35.844%	700,267	0.65%	35.207%	631,192	0.90%	36.626%	408,942
2,511,498	0.65%	37.086%	1,890,846	0.90%	37.331%	1,266,111	0.90%	36.988%	916,821	0.26%	36.105%	719,830	0.65%	35.860%	647,589	0.65%	37.280%	411,861
2,519,967	0.06%	37.150%	1,938,770	0.65%	37.984%	1,367,163	0.90%	37.886%	1,012,262	0.65%	36.759%	763,776	0.65%	36.513%	653,368	0.90%	38.178%	419,177
2,648,588	0.65%	37.803%	2,064,576	0.65%	38.638%	1,368,516	0.65%	38.539%	1,028,861	0.65%	37.412%	775,813	0.90%	37.412%	659,725	0.26%	38.440%	426,567
2,714,739	0.90%	38.702%	2,109,440	0.26%	38.899%	1,392,124	0.90%	39.438%	1,131,761	0.90%	38.310%	777,082	0.26%	37.674%	676,636	0.65%	39.093%	434,688
2,752,371	0.90%	39.600%	2,154,442	0.26%	39.161%	1,425,065	0.65%	40.091%	1,157,025	0.90%	39.209%	790,837	0.90%	38.572%	684,262	0.26%	39.355%	434,697
2,814,994	0.65%	40.254%	2,168,754	0.65%	39.814%	1,433,479	0.90%	40.990%	1,163,629	0.65%	39.862%	801,320	0.90%	39.471%	694,789	0.26%	39.617%	440,598
2,854,613	0.65%	40.907%	2,175,454	0.90%	40.713%	1,446,656	0.26%	41.252%	1,188,937	0.90%	40.761%	817,098	0.65%	40.124%	714,911	0.90%	40.515%	445,487
2,908,300	0.90%	41.805%	2,183,240	0.06%	40.777%	1,556,433	0.06%	41.316%	1,212,795	0.06%	40.825%	817,602	0.65%	40.777%	715,881	0.06%	40.580%	449,250
2,921,319	0.90%	42.704%	2,265,134	0.06%	40.841%	1,561,453	0.65%	41.969%	1,216,556	0.26%	41.087%	840,958	0.65%	41.430%	727,177	0.90%	41.478%	450,644
2,926,894	0.65%	43.357%	2,395,417	0.65%	41.495%	1,601,204	0.65%	42.622%	1,258,181	0.90%	41.985%	853,697	0.06%	41.495%	729,785	0.65%	42.131%	464,725
2,943,957	0.90%	44.256%	2,580,908	0.90%	42.393%	1,645,123	0.65%	43.275%	1,279,626	0.65%	42.639%	883,288	0.90%	42.393%	736,125	0.90%	43.030%	475,785
3,034,930	0.90%	45.154%	2,676,498	0.90%	43.292%	1,676,450	0.65%	43.929%	1,314,070	0.90%	43.537%	890,152	0.26%	42.655%	738,211	0.90%	43.929%	480,178
3,063,069	0.26%	45.416%	2,678,023	0.65%	43.945%	1,775,598	0.65%	44.582%	1,401,756	0.26%	43.799%	932,036	0.90%	43.554%	744,796	0.65%	44.582%	488,775
3,068,016	0.65%	46.069%	2,732,319	0.65%	44.598%	1,776,067	0.65%	45.235%	1,438,961	0.65%	44.452%	943,237	0.65%	44.207%	753,639	0.65%	45.235%	497,222
3,396,670	0.65%	46.723%	2,760,363	0.90%	45.497%	1,923,439	0.90%	46.134%	1,471,999	0.65%	45.105%	946,900	0.90%	45.105%	766,395	0.65%	45.888%	497,819
3,605,986	0.90%	47.621%	2,835,343	0.65%	46.150%	1,926,608	0.26%	46.395%	1,539,738	0.65%	45.759%	978,513	0.65%	45.759%	770,972	0.26%	46.150%	500,862
3,641,805	0.26%	47.883%	2,913,111	0.26%	46.412%	2,012,739	0.90%	47.294%	1,545,783	0.90%	46.657%	1,000,633	0.65%	46.412%	782,072	0.26%	46.412%	522,692
4,212,735	0.65%	48.536%	2,989,089	0.90%	47.310%	2,042,371	0.26%	47.556%	1,556,623	0.65%	47.310%	1,021,711	0.65%	47.065%	799,043	0.65%	47.065%	530,326
4,285,318	0.26%	48.798%	3,021,698	0.65%	47.964%	2,183,361	0.65%	48.209%	1,661,882	0.90%	48.209%	1,036,528	0.65%	47.718%	800,598	0.90%	47.964%	534,944
4,447,943	0.06%	48.862%	3,079,901	0.90%	48.862%	2,206,173	0.65%	48.862%	1,712,530	0.65%	48.862%	1,153,843	0.90%	48.617%	821,251	0.65%	48.617%	540,738
4,496,601	0.65%	49.515%	3,172,801	0.90%	49.761%	2,355,430	0.65%	49.515%	1,763,185	0.65%	49.515%	1,195,962	0.26%	48.879%	835,406	0.65%	49.270%	550,329
4,502,139	0.65%	50.169%	3,176,514	0.65%	50.414%	2,391,716	0.65%	50.169%	1,768,430	0.65%	50.169%	1,226,489	0.26%	49.140%	868,917	0.65%	49.923%	550,801
4,524,595	0.65%	50.822%	3,180,589	0.26%	50.676%	2,418,062	0.65%	50.822%	1,771,866	0.26%	50.430%	1,238,793	0.65%	49.794%	891,003	0.90%	50.822%	555,186
4,651,669	0.65%	51.475%	3,261,967	0.26%	50.938%	2,426,206	0.65%	51.475%	1,773,486	0.65%	51.084%	1,245,522	0.65%	50.447%	892,101	0.26%	51.084%	573,644
4,700,963	0.65%	52.128%	3,281,126	0.65%	51.591%	2,439,339	0.26%	51.737%	1,804,152	0.65%	51.737%	1,277,506	0.65%	51.100%	907,503	0.65%	51.737%	575,808
4,765,970	0.90%	53.027%	3,484,191	0.65%	52.244%	2,446,306	0.65%	52.390%	1,806,620	0.65%	52.390%	1,300,981	0.65%	51.753%	994,652	0.65%	52.390%	578,861
4,783,396	0.65%	53.680%	3,545,796	0.65%	52.897%	2,489,566	0.26%	52.652%	1,807,025	0.26%	52.652%	1,376,408	0.65%	52.406%	1,002,115	0.26%	52.652%	596,534
4,789,034	0.65%	54.333%	3,564,747	0.65%	53.550%	2,596,707	0.90%	53.550%	1,807,370	0.65%	53.305%	1,385,924	0.65%	53.060%	1,136,332	0.26%	52.914%	606,514
5,171,039	0.65%	54.986%	3,680,526	0.65%	54.204%	2,708,497	0.65%	54.204%	1,811,349	0.65%	53.958%	1,392,450	0.65%	53.713%	1,141,158	0.90%	53.812%	633,734
5,324,071	0.65%	55.640%	3,684,279	0.65%	54.857%	2,714,679	0.65%	54.857%	1,832,660	0.65%	54.611%	1,412,060	0.90%	54.611%	1,156,252	0.26%	54.074%	649,225
5,409,952	0.65%	56.293%	3,857,672	0.65%	55.510%	2,727,283	0.65%	55.510%	1,890,071	0.90%	55.510%	1,418,408	0.65%	55.265%	1,157,504	0.65%	54.727%	655,020
5,467,796	0.26%	56.555%	3,926,911	0.65%	56.163%	2,740,261	0.65%	56.163%	1,941,140	0.26%	55.772%	1,419,524	0.90%	56.163%	1,177,952	0.65%	55.380%	669,746
5,507,876	0.90%	57.453%	4,079,313	0.65%	56.816%	2,740,889	0.65%	56.816%	1,968,782	0.65%	56.425%	1,421,417	0.90%	57.062%	1,180,399	0.65%	56.034%	711,612
5,520,024	0.26%	57.715%	4,083,005	0.65%	57.470%	2,792,044	0.65%	57.470%	2,013,597	0.90%	57.324%	1,476,168	0.90%	57.960%	1,186,836	0.65%	56.687%	725,857
5,537,814	0.26%	57.977%	4,143,860	0.65%	58.123%	2,833,398	0.65%	58.123%	2,054,011	0.65%	57.977%	1,479,694	0.65%	58.614%	1,187,546	0.90%	57.585%	726,387
5,639,870	0.65%	58.630%	4,208,893	0.65%	58.776%	2,876,391	0.65%	58.776%	2,170,427	0.65%	58.630%	1,489,305	0.26%	58.875%	1,211,377	0.65%	58.239%	732,792
5,652,480	0.65%	59.283%	4,210,252	0.90%	59.675%	3,114,166	0.26%	59.038%	2,200,324	0.65%	59.283%	1,507,252	0.90%	59.774%	1,234,852	0.90%	59.137%	739,376
5,675,524	0.65%	59.936%	4,506,689	0.90%	60.573%	3,159,920	0.65%	59.691%	2,262,934	0.90%	60.182%	1,599,060	0.65%	60.427%	1,240,891	0.26%	59.399%	752,303
6,037,236	0.90%	60.835%	4,696,362	0.65%	61.226%	3,184,490	0.90%	60.590%	2,284,292	0.65%	60.835%	1,603,108	0.90%	61.326%	1,256,525	0.65%	60.052%	753,738
6,109,713	0.65%	61.488%	4,702,451	0.90%	62.125%	3,297,021	0.65%	61.243%	2,301,292	0.65%	61.488%	1,628,063	0.90%	62.224%	1,329,581	0.90%	60.951%	757,917
6,249,861	0.90%	62.387%	4,841,470	0.65%	62.778%	3,777,135	0.26%	61.505%	2,327,811	0.90%	62.387%	1,657,456	0.65%	62.878%	1,397,595	0.65%	61.604%	767,375
6,334,255	0.65%	63.040%	4,852,057	0.26%	63.040%	3,803,199	0.26%	61.766%	2,367,744	0.65%	63.040%	1,663,533	0.65%	63.531%	1,416,120	0.65%	62.257%	827,110
6,453,923	0.90%	63.939%	4,873,163	0.90%	63.939%	3,900,201	0.90%	62.665%	2,614,840	0.90%	63.939%	1,670,702	0.65%	64.184%	1,439,498	0.26%	62.519%	844,458
6,561,552	0.65%	64.592%	5,117,519	0.90%	64.837%	3,900,651	0.65%	63.318%	2,650,874	0.26%	64.200%	1,679,921	0.90%	65.083%	1,571,268	0.90%	63.418%	844,702
6,564,546	0.90%	65.490%	5,125,001	0.26%	65.099%	4,054,516	0.90%	64.217%	2,763,428	0.65%	64.854%	1,720,135	0.65%	65.736%	1,574,383	0.65%	64.071%	865,078
6,657,834	0.26%	65.752%	5,203,604	0.90%	65.998%	4,067,610	0.90%	65.115%	2,792,597	0.26%	65.115%	1,839,876	0.90%	66.634%	1,583,144	0.65%	64.724%	865,966
6,809,314	0.65%	66.405%	5,261,665	0.26%	66.259%	4,094,186	0.26%	65.377%	2,807,878	0.65%	65.769%	1,873,444	0.26%	66.896%	1,715,335	0.90%	65.623%	901,473
7,635,418	0.26%	66.667%	5,369,803	0.65%	66.913%	4,159,607	0.90%	66.276%	2,810,379	0.90%	66.667%	1,974,267	0.26%	67.158%	1,727,009	0.65%	66.276%	902,986
8,448,155	0.26%	66.929%	5,781,302	0.26%	67.174%	4,175,193	0.65%	66.929%	2,987,442	0.90%	67.566%	2,022,273	0.65%	67.811%	1,740,769	0.26%	66.538%	903,461
8,645,347	0.26%	67.191%	6,183,407	0.26%	67.436%	4,219,719	0.90%	67.828%	3,101,643	0.65%	68.219%	2,172,895	0.65%	68.464%	1,749,835	0.26%	66.799%	913,373
9,010,967	0.65%	67.844%	6,523,715	0.26%	67.698%	4,447,750	0.90%	68.726%	3,127,190	0.26%	68.481%	2,271,445	0.65%	69.118%	1,808,767	0.90%	67.698%	915,496
9,160,957	0.65%	68.497%	6,833,237	0.65%	68.351%	4,733,645	0.26%	68.988%	3,140,218	0.26%	68.743%	2,350,411	0.65%	69.771%	1,826,501	0.26%	67.960%	921,194
9,431,478	0.90%	69.396%	7,002,498	0.06%	68.415%	4,756,242	0.90%	69.887%	3,247,420	0.90%	69.641%	2,365,799	0.26%	70.033%	1,873,141	0.65%	68.613%	929,248
9,451,088	0.90%	70.294%	7,254,447	0.90%	69.314%	4,816,605	0.26%	70.148%	3,385,167	0.26%	69.903%	2,480,296	0.26%	70.294%	1,895,217	0.65%	69.266%	952,161
9,591,932	0.65%	70.948%	7,413,995	0.65%	69.967%	4,828,923	0.65%	70.802%	3,386,992	0.26%	70.165%	2,490,524	0.06%	70.359%	1,927,699	0.26%	69.528%	1,051,925
9,728,389	0.06%	71.012%	7,414,417	0.26%	70.229%	4,864,965	0.65%	71.455%	3,397,573	0.26%	70.427%	2,568,891	0.65%	71.012%	1,978,262	0.90%	70.427%	1,075,167
9,817,341	0.90%	71.910%	7,476,308	0.26%	70.491%	4,875,843	0.26%	71.717%	3,508,142	0.26%	70.688%	2,631,472	0.65%	71.665%	2,050,655	0.26%	70.688%	1,085,960
9,949,830	0.26%	72.172%	7,512,218	0.26%	70.753%	5,016,179	0.26%	71.978%	3,564,133	0.26%	70.950%	2,666,726	0.26%	71.927%	2,055,235	0.26%	70.950%	1,100,485
9,967,485	0.26%	72.434%	7,590,539	0.90%	71.651%	5,020,293	0.65%	72.632%	3,583,854	0.90%	71.849%	2,685,435	0.26%	72.189%	2,118,519	0.90%	71.849%	1,119,565
10,039,245	0.26%	72.696%	7,685,787	0.90%	72.550%	5,148,908	0.90%	73.530%	3,739,768	0.26%	72.111%	2,761,039	0.90%	73.087%	2,169,710	0.65%	72.502%	1,168,136
10,173,927	0.26%	72.958%	7,725,330	0.65%	73.203%	5,175,524	0.26%	73.792%	3,761,079	0.65%	72.764%	2,777,058	0.90%	73.986%	2,173,603	0.26%	72.764%	1,183,200
10,566,738	0.26%	73.219%	7,969,478	0.65%	73.856%	5,297,479	0.90%	74.691%	3,914,630	0.65%	73.417%	2,828,441	0.26%	74.248%	2,189,895	0.26%	73.026%	1,191,700
11,060,111	0.26%	73.481%	8,254,779	0.65%	74.509%	5,620,830	0.26%	74.952%	3,996,222	0.26%	73.679%	2,882,487	0.26%	74.509%	2,265,074	0.06%	73.090%	1,206,262
11,063,008	0.26%	73.743%	8,413,618	0.90%	75.408%	5,656,118	0.06%	75.017%	4,129,538	0.65%	74.332%	2,912,717	0.26%	74.771%	2,337,033	0.06%	73.154%	1,220,094
11,566,718	0.65%	74.396%	8,414,169	0.26%	75.670%	5,921,259	0.26%	75.278%	4,230,387	0.06%	74.396%	3,033,887	0.26%	75.033%	2,394,602	0.90%	74.053%	1,264,064
11,632,627	0.90%	75.295%	8,596,252	0.65%	76.323%	5,928,147	0.65%	75.932%	4,249,745	0.65%	75.049%	3,156,004	0.65%	75.686%	2,431,724	0.06%	74.117%	1,270,957

11,727,739	0.65%	75.948%	8,733,373	0.26%	76.585%	6,200,177	0.26%	76.193%	4,304,926	0.90%	75.948%	3,276,516	0.06%	75.750%	2,435,787	0.26%	74.379%	1,272,917
12,042,674	0.06%	76.012%	8,736,756	0.26%	76.847%	6,410,077	0.65%	76.847%	4,394,401	0.06%	76.012%	3,320,396	0.90%	76.649%	2,452,582	0.26%	74.640%	1,311,456
12,117,365	0.26%	76.274%	8,990,449	0.26%	77.108%	6,656,985	0.90%	77.745%	4,653,794	0.90%	76.911%	3,350,535	0.65%	77.302%	2,486,970	0.26%	74.902%	1,342,310
12,163,495	0.65%	76.927%	9,215,225	0.06%	77.173%	6,937,435	0.26%	78.007%	4,693,999	0.26%	77.173%	3,360,531	0.26%	77.564%	2,669,708	0.65%	75.555%	1,361,123
12,331,759	0.26%	77.189%	9,303,354	0.26%	77.434%	7,059,562	0.65%	78.660%	4,734,774	0.26%	77.434%	3,387,801	0.65%	78.217%	2,773,597	0.65%	76.209%	1,368,007
14,169,827	0.26%	77.451%	9,445,999	0.90%	78.333%	7,232,123	0.26%	78.922%	4,856,195	0.65%	78.088%	3,448,836	0.26%	78.479%	2,779,570	0.65%	76.862%	1,373,601
14,246,206	0.90%	78.349%	9,888,774	0.65%	78.986%	7,366,531	0.06%	78.986%	4,905,508	0.65%	78.741%	3,566,337	0.26%	78.741%	2,787,054	0.65%	77.515%	1,375,901
14,305,575	0.26%	78.611%	10,084,286	0.65%	79.639%	7,397,245	0.26%	79.248%	4,938,688	0.26%	79.003%	3,623,773	0.65%	79.394%	2,903,159	0.90%	78.414%	1,381,764
14,327,394	0.26%	78.873%	10,133,685	0.26%	79.901%	7,948,189	0.06%	79.312%	5,035,923	0.90%	79.901%	3,666,462	0.26%	79.656%	3,017,192	0.65%	79.067%	1,422,824
14,959,568	0.90%	79.772%	10,199,214	0.06%	79.965%	8,666,142	0.65%	79.965%	5,291,264	0.26%	80.163%	3,802,362	0.06%	79.720%	3,116,556	0.90%	79.965%	1,501,690
15,319,991	0.26%	80.033%	10,200,038	0.65%	80.619%	8,871,347	0.65%	80.619%	5,293,003	0.06%	80.227%	3,805,373	0.65%	80.373%	3,176,202	0.26%	80.227%	1,519,146
16,277,873	0.65%	80.687%	10,707,166	0.65%	81.272%	8,906,589	0.26%	80.880%	5,321,493	0.65%	80.880%	3,951,537	0.65%	81.026%	3,315,295	0.26%	80.489%	1,554,767
16,787,711	0.65%	81.340%	10,947,859	0.26%	81.534%	8,928,026	0.26%	81.142%	5,329,815	0.26%	81.142%	4,150,767	0.90%	81.925%	3,471,366	0.65%	81.142%	1,607,754
17,187,596	0.65%	81.993%	12,058,410	0.26%	81.795%	9,029,134	0.65%	81.795%	6,178,527	0.65%	81.795%	4,301,253	0.06%	81.989%	3,503,589	0.65%	81.795%	1,634,012
17,453,159	0.06%	82.057%	12,343,657	0.06%	81.860%	9,609,241	0.26%	82.057%	6,225,360	0.65%	82.449%	4,563,455	0.06%	82.053%	3,629,653	0.26%	82.057%	1,732,088
17,727,604	0.65%	82.710%	12,523,581	0.65%	82.513%	9,696,779	0.65%	82.710%	6,242,894	0.65%	83.102%	4,854,962	0.26%	82.315%	3,650,243	0.65%	82.710%	1,853,445
18,249,108	0.65%	83.364%	13,486,969	0.26%	82.775%	9,786,024	0.26%	82.972%	6,802,044	0.65%	83.755%	5,056,069	0.06%	82.379%	3,682,473	0.06%	82.775%	1,901,549
19,615,568	0.90%	84.262%	13,849,624	0.65%	83.428%	9,912,410	0.65%	83.625%	7,016,909	0.06%	83.819%	5,201,051	0.65%	83.033%	3,703,552	0.65%	83.428%	1,967,046
20,389,452	0.06%	84.326%	14,044,027	0.65%	84.081%	10,272,324	0.90%	84.524%	7,431,554	0.06%	83.883%	5,545,397	0.26%	83.294%	3,770,905	0.26%	83.690%	1,970,948
20,936,357	0.65%	84.980%	14,076,293	0.65%	84.734%	10,572,675	0.06%	84.588%	7,490,911	0.65%	84.537%	5,659,247	0.26%	83.556%	3,784,298	0.65%	84.343%	1,980,941
20,980,984	0.26%	85.241%	14,604,374	0.90%	85.633%	10,958,274	0.06%	84.652%	7,996,326	0.06%	84.601%	5,722,425	0.90%	84.455%	4,148,707	0.06%	84.407%	2,095,997
21,004,573	0.06%	85.306%	15,109,727	0.26%	85.895%	11,007,572	0.65%	85.306%	8,397,904	0.26%	84.863%	5,859,849	0.65%	85.108%	4,185,951	0.26%	84.669%	2,114,372
21,473,236	0.26%	85.567%	15,741,216	0.65%	86.548%	11,092,671	0.26%	85.567%	8,659,642	0.65%	85.516%	6,053,088	0.26%	85.370%	4,272,961	0.90%	85.567%	2,218,592
21,482,662	0.65%	86.221%	16,420,394	0.06%	86.612%	11,513,345	0.65%	86.221%	8,819,587	0.26%	85.778%	6,135,129	0.65%	86.023%	4,304,996	0.06%	85.632%	2,255,498
21,523,592	0.65%	86.874%	16,660,838	0.26%	86.874%	11,630,498	0.65%	86.874%	8,903,787	0.65%	86.431%	6,242,958	0.06%	86.087%	4,425,287	0.65%	86.285%	2,311,443
22,814,336	0.65%	87.527%	16,742,696	0.06%	86.938%	12,212,623	0.06%	86.938%	8,962,104	0.90%	87.329%	6,611,636	0.65%	86.740%	4,504,386	0.65%	86.938%	2,393,485
23,683,714	0.26%	87.789%	17,183,513	0.65%	87.591%	12,375,355	0.26%	87.200%	9,035,104	0.06%	87.394%	6,636,615	0.65%	87.394%	4,632,768	0.65%	87.591%	2,448,379
23,865,261	0.06%	87.853%	18,494,749	0.06%	87.655%	12,376,949	0.06%	87.264%	9,185,339	0.65%	88.047%	6,780,738	0.65%	88.047%	4,805,758	0.06%	87.655%	2,515,188
25,320,619	0.06%	87.917%	19,102,167	0.06%	87.720%	12,736,391	0.06%	87.328%	9,393,253	0.26%	88.309%	6,890,379	0.06%	88.111%	4,888,106	0.26%	87.917%	2,621,608
25,331,214	0.06%	87.981%	19,443,748	0.06%	87.784%	13,023,840	0.06%	87.392%	9,749,776	0.90%	89.207%	6,923,460	0.06%	88.175%	5,007,174	0.26%	88.179%	2,656,300
25,487,991	0.90%	88.880%	20,133,466	0.65%	88.437%	13,051,044	0.65%	88.046%	9,911,557	0.26%	89.469%	7,009,292	0.06%	88.239%	5,040,170	0.90%	89.078%	2,727,841
26,355,558	0.06%	88.944%	20,177,704	0.65%	89.090%	13,384,068	0.65%	88.699%	10,099,119	0.06%	89.533%	7,142,878	0.26%	88.501%	5,086,718	0.06%	89.142%	2,764,425
26,442,670	0.06%	89.008%	20,344,789	0.06%	89.154%	14,085,479	0.06%	88.763%	10,171,976	0.06%	89.597%	7,218,029	0.06%	88.565%	5,205,620	0.06%	89.206%	2,869,370
27,108,071	0.65%	89.662%	20,356,598	0.26%	89.416%	14,363,775	0.65%	89.416%	10,248,475	0.06%	89.662%	7,421,482	0.65%	89.219%	5,260,497	0.65%	89.859%	2,873,340
27,584,853	0.65%	90.315%	20,459,467	0.06%	89.480%	14,670,289	0.06%	89.480%	10,296,957	0.06%	89.726%	7,638,888	0.90%	90.117%	5,286,431	0.06%	89.923%	3,081,986
27,788,379	0.06%	90.379%	20,590,388	0.26%	89.742%	15,193,703	0.90%	90.379%	10,658,320	0.26%	89.988%	7,787,088	0.06%	90.181%	5,351,511	0.06%	89.988%	3,118,123
27,823,143	0.06%	90.443%	20,792,180	0.90%	90.641%	15,387,063	0.06%	90.443%	10,907,339	0.06%	90.052%	8,048,520	0.06%	90.246%	5,546,669	0.26%	90.249%	3,138,660
28,196,184	0.06%	90.507%	21,391,129	0.06%	90.705%	15,873,198	0.06%	90.507%	10,943,865	0.06%	90.116%	8,114,888	0.06%	90.310%	5,659,368	0.06%	90.314%	3,194,682
28,746,273	0.06%	90.572%	21,654,200	0.06%	90.769%	16,419,516	0.06%	90.572%	11,009,466	0.06%	90.180%	8,258,614	0.06%	90.374%	5,665,041	0.06%	90.378%	3,218,538
29,049,187	0.06%	90.636%	22,052,282	0.06%	90.833%	16,572,450	0.06%	90.636%	11,326,403	0.06%	90.244%	8,360,418	0.26%	90.636%	5,666,181	0.26%	90.640%	3,397,719
29,981,313	0.26%	90.898%	22,338,251	0.06%	90.898%	16,624,228	0.06%	90.700%	11,339,985	0.06%	90.309%	8,645,100	0.26%	90.898%	5,921,037	0.65%	91.293%	3,398,999
31,293,742	0.90%	91.796%	22,497,632	0.06%	90.962%	16,906,490	0.06%	90.764%	11,621,957	0.06%	90.373%	9,504,155	0.06%	90.962%	6,108,529	0.06%	91.357%	3,471,240
31,597,418	0.26%	92.058%	22,597,556	0.06%	91.026%	18,540,204	0.26%	91.026%	11,860,476	0.65%	91.026%	9,544,946	0.06%	91.026%	6,219,574	0.06%	91.421%	3,599,353
34,528,595	0.06%	92.122%	23,060,398	0.90%	91.925%	19,223,697	0.26%	91.288%	12,316,246	0.26%	91.288%	9,605,081	0.90%	91.925%	6,411,130	0.06%	91.485%	3,670,007
34,528,889	0.26%	92.384%	23,723,183	0.26%	92.186%	19,619,305	0.90%	92.186%	12,476,303	0.90%	92.186%	9,621,422	0.26%	92.186%	6,684,395	0.26%	91.747%	3,694,723
35,030,807	0.06%	92.448%	25,941,761	0.26%	92.448%	19,684,876	0.26%	92.448%	13,594,889	0.26%	92.448%	10,362,642	0.26%	92.448%	6,815,014	0.90%	92.646%	3,726,231
35,479,381	0.26%	92.710%	27,057,664	0.26%	92.710%	20,447,594	0.26%	92.710%	14,561,971	0.26%	92.710%	11,062,025	0.26%	92.710%	6,965,719	0.26%	92.908%	4,046,225
35,942,671	0.26%	92.972%	27,073,040	0.26%	92.972%	20,604,056	0.26%	92.972%	15,507,765	0.06%	92.774%	11,253,698	0.26%	92.972%	7,297,512	0.26%	93.169%	4,158,062
36,554,949	0.26%	93.234%	30,722,676	0.26%	93.234%	22,448,481	0.26%	93.234%	15,700,940	0.65%	93.427%	12,134,633	0.26%	93.234%	7,839,279	0.06%	93.234%	4,712,999
41,583,564	0.26%	93.495%	30,932,903	0.06%	93.298%	22,514,792	0.26%	93.495%	15,720,637	0.26%	93.689%	12,443,208	0.06%	93.298%	7,930,990	0.65%	93.887%	4,759,674
41,840,376	0.26%	93.757%	31,099,640	0.26%	93.560%	22,922,066	0.06%	93.560%	16,408,933	0.06%	93.753%	12,956,324	0.26%	93.560%	9,004,043	0.26%	94.149%	4,895,174
42,648,024	0.06%	93.821%	31,699,196	0.65%	94.213%	23,014,880	0.26%	93.821%	16,748,959	0.26%	94.015%	13,245,506	0.65%	94.213%	9,009,684	0.06%	94.213%	5,350,217
42,879,526	0.06%	93.886%	33,682,424	0.26%	94.475%	23,809,646	0.65%	94.475%	17,541,288	0.26%	94.277%	13,448,415	0.26%	94.475%	9,109,637	0.06%	94.277%	5,373,448
43,172,155	0.65%	94.539%	36,097,898	0.90%	95.373%	25,629,046	0.06%	94.539%	17,806,745	0.06%	94.341%	13,626,547	0.06%	94.539%	9,119,242	0.26%	94.539%	5,855,864
47,683,178	0.26%	94.801%	37,622,063	0.06%	95.437%	27,858,928	0.26%	94.801%	19,518,000	0.90%	95.240%	13,671,901	0.26%	94.801%	11,116,899	0.26%	94.801%	5,939,272
51,250,545	0.06%	94.865%	37,622,788	0.06%	95.502%	28,064,424	0.06%	94.865%	20,096,526	0.26%	95.502%	14,110,850	0.26%	95.062%	11,138,956	0.06%	94.865%	6,031,975
52,087,093	0.06%	94.929%	40,466,581	0.65%	96.155%	29,368,597	0.90%	95.763%	20,428,843	0.26%	95.763%	14,770,678	0.06%	95.127%	11,310,883	0.26%	95.127%	6,398,620
53,116,836	0.65%	95.582%	41,201,724	0.26%	96.417%	29,599,320	0.06%	95.828%	22,249,161	0.06%	95.828%	15,979,358	0.06%	95.191%	11,522,842	0.06%	95.191%	6,844,966
57,107,203	0.90%	96.481%	42,346,694	0.26%	96.678%	30,188,196	0.26%	96.089%	23,702,639	0.26%	96.089%	17,639,823	0.90%	96.089%	11,994,520	0.90%	96.089%	7,086,049
57,158,421	0.26%	96.743%	45,729,201	0.06%	96.743%	30,663,092	0.65%	96.743%	24,917,294	0.06%	96.154%	18,715,199	0.06%	96.154%	12,176,914	0.06%	96.154%	7,278,952
60,473,246	0.06%	96.807%	50,541,781	0.65%	97.396%	40,567,705	0.06%	96.807%	26,849,547	0.65%	96.807%	19,870,849	0.65%	96.807%	13,274,572	0.06%	96.218%	7,310,794
67,307,480	0.65%	97.460%	50,713,497	0.06%	97.460%	43,220,086	0.65%	97.460%	30,201,582	0.65%	97.460%	21,849,181	0.06%	96.871%	17,593,387	0.65%	96.871%	7,646,040
72,673,198	0.06%	97.524%	55,027,540	0.06%	97.524%	43,300,593	0.06%	97.524%	32,402,814	0.06%	97.524%	23,827,022	0.06%	96.935%	17,595,552	0.65%	97.524%	7,807,732
72,990,726	0.06%	97.588%	56,156,980	0.06%	97.588%	44,252,998	0.06%	97.588%	32,700,721	0.06%	97.588%	24,031,271	0.06%	96.999%	17,928,998	0.06%	97.588%	9,385,730
76,098,149	0.06%	97.653%	57,869,277	0.26%	97.850%	46,277,034	0.06%	97.653%	33,416,283	0.26%	97.850%	25,157,284	0.06%	97.064%	17,984,235	0.06%	97.653%	9,452,408
87,546,665	0.06%	97.717%	68,886,521	0.06%	97.914%	47,013,573	0.06%	97.717%	38,760,524	0.06%	97.914%	25,554,723	0.06%	97.128%	18,263,807	0.06%	97.717%	10,192,581
90,826,769	0.26%	97.979%	70,874,509	0.06%	97.979%	48,439,282	0.06%	97.781%	38,862,374	0.06%	97.979%	27,151,102	0.65%	97.781%	18,592,974	0.06%	97.781%	11,534,401
93,961,620	0.06%	98.043%	71,883,914	0.06%	98.043%	51,330,049	0.06%	97.845%	38,984,936	0.06%	98.043%	28,388,663	0.26%	98.043%	20,150,524	0.26%	98.043%	12,086,217
96,701,006	0.06%	98.107%	73,945,870	0.06%	98.107%	52,771,905	0.26%	98.107%	39,203,079	0.06%	98.107%	29,545,582	0.06%	98.107%	21,538,045	0.06%	98.107%	12,252,677
106,604,721	0.06%	98.171%	75,717,626	0.06%	98.171%	54,480,547	0.06%	98.171%	41,780,042	0.06%	98.171%	32,270,663	0.06%	98.171%	21,954,092	0.06%	98.171%	13,292,358
106,648,580	0.06%	98.235%	77,287,158	0.06%	98.235%	56,329,019	0.65%	98.824%	48,045,271	0.26%	98.433%	34,510,087	0.65%	98.824%	27,656,897	0.06%	98.235%	14,296,972
107,737,358	0.65%	98.889%	83,385,709	0.65%	98.889%	68,391,250	0.26%	99.086%	50,432,678	0.06%	98.497%	37,682,301	0.06%	98.889%	28,122,884	0.65%	98.889%	15,743,257
109,399,229	0.26%	99.150%	84,128,069	0.26%	99.150%	69,774,969	0.06%	99.150%	51,898,883	0.65%	99.150%	39,886,803	0.26%	99.150%	29,066,560	0.26%	99.150%	16,210,418
127,260,962	0.06%	99.215%	105,769,417	0.06%	99.215%	74,180,951	0.06%	99.215%	60,347,610	0.06%	99.215%	46,139,558	0.06%	99.215%	34,080,080	0.06%	99.215%	17,440,816
127,293,353	0.26%	99.476%	112,520,581	0.26%	99.476%	85,618,067	0.26%	99.476%	68,073,022	0.26%	99.476%	54,165,301	0.06%	99.279%	42,619,218	0.06%	99.279%	24,830,806
195,284,939	0.06%	99.541%	149,024,273	0.06%	99.541%	113,097,249	0.06%	99.541%	86,101,238	0.06%	99.541%	65,033,305	0.26%	99.541%	46,552,594	0.26%	99.541%	25,890,976
216,625,545	0.26%	99.802%	190,534,076	0.26%	99.802%	154,340,480	0.26%	99.802%	119,028,541	0.26%	99.802%	96,874,093	0.26%	99.802%	73,739,527	0.26%	99.802%	46,683,208
264,405,652	0.06%	99.867%	203,599,651	0.06%	99.867%	173,601,907	0.06%	99.867%	124,939,674	0.06%	99.867%	98,409,554	0.06%	99.867%	84,440,849	0.06%	99.867%	46,932,388
268,331,868	0.06%	99.931%	215,895,717	0.06%	99.931%	175,511,568	0.06%	99.931%	144,189,307	0.06%	99.931%	119,246,364	0.06%	99.931%	99,803,764	0.06%	99.931%	67,627,745
433,036,794	0.06%	99.995%	348,575,865	0.06%	99.995%	298,246,482	0.06%	99.995%	255,354,723	0.06%	99.995%	201,445,367	0.06%	99.995%	171,597,123	0.06%	99.995%	114,445,658

Reliabilty Energy Costs by Confidence Level k$

		80%	85%	90%	95%	99%
2	11.30%	66,664,938	87,215,570	104,983,608	169,371,783	399,693,199
2	12.28%	48,489,444	64,433,795	80,766,430	136,991,809	314,219,761
2	13.27%	35,984,234	49,667,034	63,438,604	108,021,273	238,104,996
2	14.25%	25,599,537	36,600,190	50,500,106	83,179,014	186,062,317
2	15.23%	19,574,810	26,994,121	39,200,065	65,012,301	136,053,927
2	16.21%	14,246,206	20,936,357	27,584,853	51,250,545	109,399,229
2	17.20%	10,199,214	15,741,216	20,356,598	37,622,788	84,128,069
2	18.18%	8,666,142	10,958,274	15,193,703	28,064,424	68,391,250
2	19.16%	5,291,264	7,996,326	10,296,957	22,249,161	50,432,678
2	20.14%	3,666,462	5,859,849	7,787,088	15,979,358	39,886,803
2	21.13%	3,116,556	4,148,707	5,260,497	11,522,842	29,066,560
2	23.09%	1,501,690	2,114,372	3,118,123	6,398,620	16,210,418

		80%	85%	90%	95%	99%	M$		
Reserve Margin	Capacity Costs k$		Total Reliability Costs (Reliability Energy Costs + Capacity Costs)M$				85th % Reliability En	Capacity Costs	85th % Total Reliaibility Costs
10%	19,088,230	120.74	149.36	167.70	243.46	568.90	130.27	19.09	149.36
10.25%	20,678,906	114.42	141.29	159.70	233.26	537.84	120.61	20.68	141.29
10.50%	22,269,581	108.72	133.94	152.32	223.67	508.72	111.67	22.27	133.94
10.75%	23,860,257	103.58	127.25	145.51	214.68	481.42	103.39	23.86	127.25
11.00%	25,450,933	98.97	121.18	139.25	206.24	455.84	95.72	25.45	121.18
11.25%	27,041,609	94.84	115.67	133.50	198.33	431.87	88.63	27.04	115.67
11.50%	28,632,285	91.16	110.69	128.21	190.92	409.42	82.06	28.63	110.69
11.75%	30,222,960	87.88	106.20	123.38	183.98	388.39	75.97	30.22	106.20
12.00%	31,813,636	84.99	102.15	118.95	177.49	368.71	70.34	31.81	102.15
12.25%	33,404,312	82.44	98.53	114.92	171.42	350.30	65.12	33.40	98.53
12.50%	34,994,988	80.42	95.85	111.60	165.03	330.68	60.86	34.99	95.85
12.75%	36,585,664	78.69	93.55	108.62	159.00	312.12	56.96	36.59	93.55
13.00%	38,176,339	77.20	91.49	105.92	153.41	294.93	53.31	38.18	91.49
13.25%	39,767,015	75.94	89.66	103.47	148.24	279.02	49.89	39.77	89.66
13.50%	41,357,691	74.55	87.56	101.46	142.89	265.94	46.20	41.36	87.56
13.75%	42,948,367	73.39	85.69	99.66	137.95	253.87	42.75	42.95	85.69
14.00%	44,539,043	72.45	84.09	98.05	133.43	242.63	39.55	44.54	84.09
14.25%	46,129,718	71.73	82.73	96.62	129.30	232.17	36.60	46.13	82.73
14.50%	47,720,394	71.63	81.59	95.06	125.84	219.51	33.87	47.72	81.59
14.75%	49,311,070	71.64	80.65	93.70	122.68	207.95	31.34	49.31	80.65
15.00%	50,901,746	71.76	79.91	92.52	119.81	197.40	29.01	50.90	79.91
15.25%	52,492,422	71.95	79.36	91.44	117.22	188.01	26.87	52.49	79.36
15.50%	54,083,097	72.03	79.27	89.70	115.01	182.28	25.19	54.08	79.27
15.75%	55,673,773	72.23	79.28	88.25	113.02	176.95	23.61	55.67	79.28
16.00%	57,264,449	72.53	79.40	87.05	111.25	172.00	22.13	57.26	79.40
16.25%	58,855,125	72.93	79.58	86.14	109.54	167.22	20.72	58.86	79.58
16.50%	60,445,801	73.37	79.72	85.70	107.29	161.81	19.27	60.45	79.72
16.75%	62,036,476	73.91	79.96	85.41	105.34	156.84	17.92	62.04	79.96
17.00%	63,627,152	74.53	80.30	85.26	103.66	152.31	16.67	63.63	80.30
17.25%	65,217,828	75.33	80.65	85.26	102.25	148.41	15.44	65.22	80.65
17.50%	66,808,504	76.51	80.89	85.41	101.18	145.73	14.08	66.81	80.89
17.75%	68,399,180	77.70	81.24	85.67	100.30	143.27	12.84	68.40	81.24
18.00%	69,989,855	78.92	81.70	86.02	99.60	141.02	11.71	69.99	81.70
18.25%	71,580,531	79.95	82.29	86.36	99.18	138.49	10.71	71.58	82.29
18.50%	73,171,207	80.55	83.06	86.55	99.19	135.09	9.89	73.17	83.06
18.75%	74,761,883	81.27	83.89	86.88	99.29	132.07	9.13	74.76	83.89
19.00%	76,352,559	82.09	84.78	87.33	99.47	129.38	8.42	76.35	84.78
19.25%	77,943,234	83.06	85.72	87.99	99.54	127.33	7.78	77.94	85.72
19.50%	79,533,910	84.20	86.72	88.89	99.39	126.06	7.19	79.53	86.72
19.75%	81,124,586	85.37	87.76	89.84	99.38	124.95	6.64	81.12	87.76
20.00%	82,715,262	86.59	88.85	90.83	99.49	124.00	6.13	82.72	88.85
20.25%	84,305,938	87.91	89.95	91.77	99.73	122.86	5.65	84.31	89.95
20.50%	85,896,613	89.35	91.07	92.65	100.09	121.47	5.17	85.90	91.07
20.75%	87,487,289	90.80	92.22	93.60	100.55	120.31	4.74	87.49	92.22
21.00%	89,077,965	92.26	93.42	94.61	101.10	119.36	4.34	89.08	93.42
21.25%	90,668,641	93.65	94.65	95.76	101.77	118.69	3.98	90.67	94.65
21.50%	92,259,317	94.97	95.91	97.02	102.56	118.28	3.65	92.26	95.91
21.75%	93,849,992	96.32	97.20	98.31	103.41	118.00	3.35	93.85	97.20
22.00%	95,440,668	97.69	98.52	99.61	104.31	117.87	3.08	95.44	98.52
22.25%	97,031,344	99.08	99.85	100.93	105.26	117.85	2.82	97.03	99.85
22.50%	98,622,020	100.49	101.21	102.27	106.26	117.95	2.59	98.62	101.21
22.75%	100,212,696	101.92	102.59	103.63	107.30	118.16	2.38	100.21	102.59
23.00%	101,803,371	103.36	103.99	105.00	108.38	118.46	2.18	101.80	103.99
23.25%	103,394,047	104.81	105.40	106.38	109.50	118.86	2.00	103.39	105.40
23.50%	104,984,723	106.28	106.82	107.78	110.65	119.34	1.84	104.98	106.82
23.75%	106,575,399	107.75	108.26	109.19	111.83	119.91	1.69	106.58	108.26
24.00%	108,166,075	109.24	109.71	110.61	113.04	120.54	1.55	108.17	109.71
24.25%	109,756,750	110.73	111.18	112.05	114.28	121.25	1.42	109.76	111.18
24.50%	111,347,426	112.24	112.65	113.49	115.55	122.02	1.30	111.35	112.65
24.75%	112,938,102	113.75	114.14	114.94	116.83	122.84	1.20	112.94	114.14
25.00%	114,528,778	115.27	115.63	116.41	118.14	123.72	1.10	114.53	115.63
25.25%	116,119,454	116.79	117.13	117.88	119.47	124.66	1.01	116.12	117.13
25.50%	117,710,129	118.32	118.64	119.35	120.82	125.64	0.93	117.71	118.64
25.75%	119,300,805	119.86	120.15	120.84	122.19	126.66	0.85	119.30	120.15
26.00%	120,891,481	121.40	121.67	122.33	123.57	127.72	0.78	120.89	121.67
26.25%	122,482,157	122.95	123.20	123.83	124.97	128.82	0.72	122.48	123.20
26.50%	124,072,833	124.50	124.73	125.33	126.38	129.96	0.66	124.07	124.73
26.75%	125,663,508	126.05	126.27	126.84	127.80	131.13	0.60	125.66	126.27
27.00%	127,254,184	127.61	127.81	128.36	129.24	132.33	0.55	127.25	127.81
27.25%	128,844,860	129.17	129.35	129.88	130.69	133.56	0.51	128.84	129.35

	12.28%	13.27%	14.25%	15.23%	16.21%	17.20%	18.18%	19.16%	20.14%	21.13%	23.09%
Exposure	Exposure	Exposure									
0.06%	0.29	0	0	0	0	0	0	0	0	0	0
0.13%	0.33	0	0	0	0	0	0	0	0	0	0
0.19%	0.34	0	0	0	0	0	0	0	0	0	0
0.26%	0.53	0	0	0	0	0	0	0	0	0	0
0.32%	0.55	0	0	0	0	0	0	0	0	0	0
0.39%	0.56	0	0	0	0	0	0	0	0	0	0
0.45%	0.57	0	0	0	0	0	0	0	0	0	0
0.51%	0.59	0	0	0	0	0	0	0	0	0	0
0.58%	0.62	0	0	0	0	0	0	0	0	0	0
0.64%	0.62	0	0	0	0	0	0	0	0	0	0
0.71%	0.67	0	0	0	0	0	0	0	0	0	0
0.77%	0.67	0	0	0	0	0	0	0	0	0	0
0.83%	0.71	0	0	0	0	0	0	0	0	0	0
1.10%	0.75	0	0	0	0	0	0	0	0	0	0
1.16%	0.75	0	0	0	0	0	0	0	0	0	0
1.22%	0.96	1	0	0	0	0	0	0	0	0	0
1.29%	0.96	1	0	0	0	0	0	0	0	0	0
1.35%	1.01	1	0	0	0	0	0	0	0	0	0
1.62%	1.06	1	0	0	0	0	0	0	0	0	0
1.68%	1.08	1	0	0	0	0	0	0	0	0	0
1.94%	1.11	1	0	0	0	0	0	0	0	0	0
2.01%	1.11	1	0	0	0	0	0	0	0	0	0
2.07%	1.25	1	1	0	0	0	0	0	0	0	0
2.13%	1.30	1	1	0	0	0	0	0	0	0	0
2.20%	1.35	1	1	0	0	0	0	0	0	0	0
2.46%	1.36	1	1	0	0	0	0	0	0	0	0
2.52%	1.50	1	1	0	0	0	0	0	0	0	0
2.79%	1.52	1	1	1	0	0	0	0	0	0	0
3.05%	1.59	1	1	1	0	0	0	0	0	0	0
3.31%	1.70	1	1	1	0	0	0	0	0	0	0
3.37%	1.71	1	1	1	0	0	0	0	0	0	0
3.64%	1.72	1	1	1	0	0	0	0	0	0	0
3.70%	1.77	1	1	1	0	0	0	0	0	0	0
3.96%	1.78	1	1	1	0	0	0	0	0	0	0
4.22%	1.93	1	1	1	0	0	0	0	0	0	0
4.48%	1.95	1	1	1	0	0	0	0	0	0	0
4.75%	1.97	1	1	1	0	0	0	0	0	0	0
5.40%	2.02	1	1	1	0	0	0	0	0	0	0
5.66%	2.28	1	1	1	0	0	0	0	0	0	0
5.92%	2.28	1	1	1	0	0	0	0	0	0	0
5.99%	2.30	1	1	1	1	0	0	0	0	0	0
6.64%	2.31	1	1	1	1	0	0	0	0	0	0
6.90%	2.35	1	1	1	1	0	0	0	0	0	0
7.56%	2.44	2	1	1	1	0	0	0	0	0	0
7.82%	2.45	2	1	1	1	0	0	0	0	0	0
7.88%	2.47	2	1	1	1	0	0	0	0	0	0
7.95%	2.57	2	1	1	1	0	0	0	0	0	0
8.21%	2.61	2	1	1	1	1	0	0	0	0	0
8.27%	2.69	2	1	1	1	1	0	0	0	0	0
8.34%	2.73	2	1	1	1	1	0	0	0	0	0
8.40%	2.80	2	1	1	1	1	0	0	0	0	0
9.05%	2.89	2	1	1	1	1	0	0	0	0	0
9.71%	2.93	2	2	1	1	1	0	0	0	0	0
9.97%	3.17	2	2	1	1	1	0	0	0	0	0
10.23%	3.29	2	2	1	1	1	0	0	0	0	0
10.49%	3.31	2	2	1	1	1	0	0	0	0	0
11.15%	3.46	2	2	1	1	1	0	0	0	0	0
11.80%	3.49	3	2	1	1	1	0	0	0	0	0
12.06%	3.62	3	2	1	1	1	0	0	0	0	0
12.71%	3.70	3	2	1	1	1	0	0	0	0	0
13.37%	3.83	3	2	1	1	1	1	0	0	0	0
14.02%	3.84	3	2	1	1	1	1	0	0	0	0
14.28%	3.89	3	2	1	1	1	1	0	0	0	0
14.54%	3.90	3	2	2	1	1	1	0	0	0	0
15.20%	3.93	3	2	2	1	1	1	0	0	0	0
15.85%	4.09	3	2	2	1	1	1	0	0	0	0
16.75%	4.32	3	2	2	1	1	1	0	0	0	0
17.40%	4.39	3	2	2	1	1	1	0	0	0	0
18.06%	4.53	3	2	2	1	1	1	0	0	0	0
18.12%	4.73	3	2	2	1	1	1	0	0	0	0
18.77%	5.07	3	2	2	1	1	1	0	0	0	0
19.03%	5.19	3	2	2	1	1	1	0	0	0	0
19.69%	5.23	3	2	2	1	1	1	1	0	0	0
20.59%	5.29	4	3	2	1	1	1	1	0	0	0
20.65%	5.39	4	3	2	1	1	1	1	0	0	0
20.91%	5.43	4	3	2	1	1	1	1	0	0	0
21.17%	5.62	4	3	2	1	1	1	1	0	0	0
21.83%	5.71	4	3	2	1	1	1	1	0	0	0
22.73%	5.72	4	3	2	1	1	1	1	0	0	0
23.62%	5.75	4	3	2	1	1	1	1	1	0	0
24.28%	6.16	4	3	2	1	1	1	1	1	0	0
24.93%	6.57	4	3	2	1	1	1	1	1	0	0
25.58%	6.74	4	3	2	1	1	1	1	1	0	0
25.85%	6.90	4	3	2	2	1	1	1	1	0	0
26.74%	7.06	5	3	2	2	1	1	1	1	0	0
27.01%	7.38	5	3	3	2	1	1	1	1	0	0
27.27%	7.51	5	3	3	2	1	1	1	1	1	0
27.53%	7.55	5	4	3	2	1	1	1	1	1	0
27.59%	7.77	5	4	3	2	1	1	1	1	1	0
28.49%	7.99	5	4	3	2	1	1	1	1	1	0
28.75%	8.21	5	4	3	2	1	1	1	1	1	0
29.65%	8.30	5	4	3	2	2	1	1	1	1	0
30.55%	8.41	5	4	3	2	2	1	1	1	1	0
31.20%	8.69	6	4	3	2	2	1	1	1	1	0
32.10%	9.44	6	4	3	2	2	1	1	1	1	0
32.76%	9.54	6	4	3	2	2	1	1	1	1	0
33.66%	9.63	6	4	3	2	2	1	1	1	1	0
34.31%	9.70	6	4	3	2	2	1	1	1	1	0
35.21%	9.70	6	5	3	2	2	1	1	1	1	0
36.11%	9.74	6	5	3	3	2	1	1	1	1	0
37.00%	10.14	7	5	3	3	2	1	1	1	1	0
37.66%	10.24	7	5	4	3	2	1	1	1	1	0
38.56%	10.72	8	5	4	3	2	1	1	1	1	0
39.45%	11.04	8	5	4	3	2	1	1	1	1	0
40.11%	11.07	8	5	4	3	2	1	1	1	1	0
40.37%	11.88	8	5	4	3	2	1	1	1	1	0
40.43%	11.94	8	5	4	3	2	2	1	1	1	0
41.09%	12.02	8	5	4	3	2	2	1	1	1	0
41.99%	12.12	8	6	4	3	2	2	1	1	1	0
42.88%	12.21	8	6	4	3	3	2	1	1	1	0
43.54%	12.40	9	6	4	3	3	2	1	1	1	0
44.44%	12.67	9	7	4	3	3	2	1	1	1	0
45.09%	13.42	9	7	5	3	3	2	1	1	1	0
45.74%	13.52	9	7	5	3	3	2	1	1	1	0
46.64%	13.59	10	7	5	4	3	2	2	1	1	1
47.29%	13.69	10	7	5	4	3	2	2	1	1	1
47.95%	15.23	11	7	5	4	3	2	2	1	1	1
48.85%	15.56	11	8	6	4	3	2	2	1	1	1
49.50%	15.60	12	8	6	4	3	2	2	1	1	1
49.76%	15.67	12	9	6	4	3	2	2	1	1	1
50.02%	15.86	12	9	6	5	3	2	2	1	1	1
50.68%	15.94	13	9	6	5	3	2	2	1	1	1
51.33%	16.01	13	9	7	5	3	2	2	1	1	1
51.98%	17.16	14	9	7	5	3	2	2	1	1	1
52.88%	17.48	14	9	7	5	3	2	2	1	1	1
53.53%	18.49	14	10	7	5	4	2	2	1	1	1
54.43%	18.60	14	10	7	5	4	3	2	1	1	1
55.09%	19.27	14	10	7	5	4	3	2	1	1	1
55.98%	19.40	15	10	7	5	4	3	2	1	1	1
56.64%	19.41	15	10	7	5	4	3	2	1	1	1
57.29%	19.77	15	10	7	5	4	3	2	1	1	1
57.94%	20.35	16	10	7	6	4	3	2	1	1	1
58.60%	20.86	16	10	7	6	4	3	2	1	1	1
58.86%	21.55	16	11	8	6	4	3	2	1	1	1
59.12%	21.87	16	11	8	6	4	3	2	1	1	1
60.02%	22.53	16	11	8	6	4	3	2	2	1	1
60.67%	23.00	17	12	8	6	5	3	2	2	1	1
61.33%	23.07	17	12	9	6	5	3	2	2	1	1
61.98%	24.71	17	13	9	6	5	3	2	2	1	1
62.63%	24.89	18	13	9	6	5	4	2	2	1	1
63.29%	25.45	19	13	9	6	5	4	2	2	1	1
63.94%	25.89	19	13	9	6	5	4	3	2	1	1
64.84%	27.94	19	14	10	7	5	4	3	2	2	1
65.49%	27.96	20	15	11	7	5	4	3	2	2	1
66.39%	29.36	20	15	11	7	5	4	3	2	2	1
67.29%	30.39	21	15	11	7	5	4	3	2	2	1
67.55%	30.58	21	15	11	8	5	4	3	2	2	1
68.20%	30.80	22	15	11	8	6	4	3	2	2	1
68.46%	30.93	23	16	12	9	6	4	3	2	2	1
69.12%	31.39	23	16	12	9	7	4	3	2	2	1
70.02%	31.45	24	17	12	9	7	5	3	2	2	1
70.67%	31.68	24	17	13	9	7	5	3	2	2	1
71.57%	31.71	25	18	13	9	7	5	3	2	2	1
72.22%	32.52	26	18	13	10	7	5	3	2	2	1
73.12%	33.42	26	18	14	10	7	5	3	3	2	1
73.77%	33.76	26	19	14	10	7	5	4	3	2	1
74.03%	33.83	27	19	14	10	8	5	4	3	2	1
74.69%	34.19	28	20	15	10	8	5	4	3	2	1
74.95%	35.14	29	20	15	10	8	5	4	3	2	1
75.85%	37.17	29	20	16	10	8	5	4	3	2	1
76.11%	41.33	32	20	16	11	8	5	4	3	2	1
76.76%	41.55	32	21	16	11	8	6	4	3	2	1
77.03%	42.78	32	21	17	11	8	6	4	3	2	1
77.68%	43.16	32	21	17	12	8	6	4	3	2	1

77.94%	43.56	32	21	17	12	9	6	4	3	2	1
78.59%	43.68	33	23	17	12	9	6	4	3	2	1
78.86%	44.75	34	23	18	12	9	6	4	3	2	1
79.12%	45.81	34	23	18	12	9	7	5	3	2	1
79.38%	46.24	34	24	18	12	9	7	5	3	3	1
79.64%	47.02	34	24	18	12	9	7	5	3	3	1
79.90%	47.73	35	25	18	14	9	7	5	3	3	1
80.16%	48.49	36	25	19	14	10	7	5	4	3	1
80.43%	48.54	36	26	19	14	10	7	5	4	3	1
81.08%	48.60	37	28	20	14	10	8	5	4	3	1
81.34%	51.50	38	30	20	15	10	9	5	4	3	2
81.41%	56.19	39	31	20	15	10	9	5	4	3	2
82.06%	56.98	39	31	21	16	11	9	5	4	3	2
82.96%	57.27	40	31	22	17	11	9	5	4	3	2
83.61%	57.40	40	31	24	17	12	9	6	4	4	2
83.67%	61.03	42	32	25	17	12	10	6	5	4	2
84.33%	62.50	42	32	26	18	13	10	6	5	4	2
84.98%	62.92	42	33	27	18	13	10	7	5	4	2
85.24%	64.41	43	36	27	20	14	10	7	5	4	2
85.90%	64.43	50	37	27	20	14	10	7	6	4	2
86.55%	65.79	51	37	27	21	14	11	7	6	4	2
87.45%	67.40	51	37	28	21	15	11	8	6	4	2
87.51%	68.28	52	38	29	21	15	11	8	6	4	2
87.77%	70.43	52	39	30	21	16	11	9	6	4	2
88.04%	71.27	54	40	30	21	16	12	9	6	4	2
88.10%	74.75	54	41	30	22	17	12	9	6	4	2
88.36%	75.63	56	42	31	23	17	12	9	7	5	2
88.62%	78.63	58	43	32	24	17	12	9	7	5	2
89.28%	80.13	59	43	32	24	18	12	9	7	5	3
90.18%	80.77	59	43	33	25	19	13	9	7	5	3
90.24%	87.83	60	48	34	25	19	13	10	7	5	3
90.50%	88.08	63	49	36	25	20	13	10	7	5	3
90.76%	91.05	63	51	37	26	20	13	10	7	5	3
90.83%	93.35	67	52	37	26	20	14	10	7	5	3
91.48%	93.76	67	52	38	27	20	14	10	7	5	3
91.54%	95.62	72	53	39	28	20	15	10	8	5	3
91.61%	96.95	72	53	39	28	21	15	11	8	5	3
91.67%	97.73	73	54	40	28	21	15	11	8	6	3
91.74%	99.09	73	56	40	28	21	16	11	8	6	3
91.80%	101.69	73	58	40	29	22	16	11	8	6	3
92.06%	102.71	75	59	41	29	22	17	11	8	6	3
92.13%	102.83	75	59	41	30	22	17	11	9	6	3
92.19%	103.87	78	60	41	31	22	17	12	10	6	3
92.26%	112.91	78	61	42	32	23	19	12	10	6	4
92.52%	114.49	78	62	42	35	23	19	12	10	6	4
92.58%	116.82	79	67	45	35	24	20	12	10	7	4
93.23%	117.01	83	68	50	35	26	20	14	10	7	4
93.50%	117.91	92	71	51	35	27	20	15	11	7	4
93.56%	121.05	94	73	55	36	27	21	16	11	7	4
93.82%	122.55	95	74	57	37	31	22	16	12	8	5
94.08%	132.88	100	75	61	42	31	23	16	12	8	5
94.98%	134.98	101	77	61	42	31	23	16	13	9	5
95.24%	136.99	102	77	62	43	32	23	17	13	9	5
95.31%	141.40	108	81	63	43	34	24	18	13	9	5
95.37%	141.75	113	83	63	43	36	26	18	14	9	6
95.64%	147.93	115	83	65	48	38	28	20	14	11	6
95.70%	149.08	118	85	69	51	38	28	20	14	11	6
95.76%	155.13	119	93	70	52	40	29	20	15	11	6
96.42%	163.89	131	97	73	53	41	30	22	16	12	7
96.48%	170.79	132	100	74	57	42	30	24	18	12	7
96.55%	174.21	134	102	81	57	46	31	25	19	12	7
97.20%	180.46	135	104	83	60	51	41	27	20	13	7
97.26%	190.23	138	113	86	67	51	43	30	22	18	8
97.52%	200.39	141	117	89	73	55	43	32	24	18	8
97.59%	230.55	155	135	101	73	56	44	33	24	18	9
97.65%	235.16	167	147	106	76	58	46	33	25	18	9
97.91%	235.30	192	149	112	88	69	47	39	26	18	10
97.98%	243.34	201	152	114	91	71	48	39	27	19	12
98.04%	264.94	204	156	116	94	72	51	39	28	20	12
98.11%	271.65	206	162	119	97	74	53	39	30	22	12
98.17%	272.05	213	169	131	107	76	54	42	32	22	13
98.82%	300.30	215	184	136	107	77	56	48	35	28	14
99.09%	309.87	224	186	150	108	83	68	50	38	28	16
99.35%	314.22	238	191	152	109	84	70	52	40	29	16
99.41%	344.52	268	199	168	127	106	74	60	46	34	17
99.48%	363.62	271	206	172	127	113	86	68	54	43	25
99.74%	469.80	381	328	243	195	149	113	86	65	47	26
99.80%	513.31	388	331	280	217	191	154	119	97	74	47
99.87%	552.33	442	389	322	264	204	174	125	98	84	47
99.93%	667.62	485	408	322	268	216	176	144	119	100	68
100.00%	828.07	678	593	491	433	349	298	255	201	172	114

	12.00%	13.00%	14.00%	15.00%	16.00%	17.00%	18.00%	19.00%	20.00%	21.00%	22.00%
Exposure	Exposure	Exposure									
0.06%	0	0	0	0	0	0	0	0	0	0	0
0.13%	0	0	0	0	0	0	0	0	0	0	0
0.19%	0	0	0	0	0	0	0	0	0	0	0
0.26%	1	0	0	0	0	0	0	0	0	0	0
0.32%	1	0	0	0	0	0	0	0	0	0	0
0.39%	1	0	0	0	0	0	0	0	0	0	0
0.45%	1	0	0.27	0	0	0	0	0	0	0	0
0.51%	1	0	0.28	0	0	0	0	0	0	0	0
0.58%	1	0	0.33	0	0	0	0	0	0	0	0
0.64%	1	0	0.34	0	0	0	0	0	0	0	0
0.71%	1	0	0.37	0	0	0	0	0	0	0	0
0.77%	1	1	0.38	0	0	0	0	0	0	0	0
0.83%	1	1	0.41	0	0	0	0	0	0	0	0
1.10%	1	1	0.42	0	0	0	0	0	0	0	0
1.16%	1	1	0.42	0	0	0	0	0	0	0	0
1.22%	1	1	0.43	0	0	0	0	0	0	0	0
1.29%	1	1	0.43	0	0	0	0	0	0	0	0
1.35%	1	1	0.45	0	0	0	0	0	0	0	0
1.62%	1	1	0.45	0	0	0	0	0	0	0	0
1.68%	1	1	0.46	0	0	0	0	0	0	0	0
1.94%	1	1	0.50	0	0	0	0	0	0	0	0
2.01%	1	1	0.50	0	0	0	0	0	0	0	0
2.07%	1	1	0.65	0	0	0	0	0	0	0	0
2.13%	1	1	0.65	0	0	0	0	0	0	0	0
2.20%	2	1	0.66	0	0	0	0	0	0	0	0
2.46%	2	1	0.71	1	0	0	0	0	0	0	0
2.52%	2	1	0.72	1	0	0	0	0	0	0	0
2.79%	2	1	0.76	1	0	0	0	0	0	0	0
3.05%	2	1	0.77	1	0	0	0	0	0	0	0
3.31%	2	1	0.78	1	0	0	0	0	0	0	0
3.37%	2	1	0.82	1	0	0	0	0	0	0	0
3.64%	2	1	0.84	1	0	0	0	0	0	0	0
3.70%	2	1	0.86	1	0	0	0	0	0	0	0
3.96%	2	1	0.88	1	0	0	0	0	0	0	0
4.22%	2	1	0.89	1	0	0	0	0	0	0	0
4.48%	2	1	0.93	1	0	0	0	0	0	0	0
4.75%	2	1	0.96	1	0	0	0	0	0	0	0
5.40%	2	1	0.97	1	1	0	0	0	0	0	0
5.66%	3	1	0.99	1	1	0	0	0	0	0	0
5.92%	3	1	1.03	1	1	0	0	0	0	0	0
5.99%	3	2	1.10	1	1	0	0	0	0	0	0
6.64%	3	2	1.11	1	1	0	0	0	0	0	0
6.90%	3	2	1.13	1	1	0	0	0	0	0	0
7.56%	3	2	1.17	1	1	0	0	0	0	0	0
7.82%	3	2	1.19	1	1	0	0	0	0	0	0
7.88%	3	2	1.24	1	1	0	0	0	0	0	0
7.95%	3	2	1.28	1	1	0	0	0	0	0	0
8.21%	3	2	1.37	1	1	1	0	0	0	0	0
8.27%	3	2	1.45	1	1	1	0	0	0	0	0
8.34%	3	2	1.49	1	1	1	0	0	0	0	0
8.40%	3	2	1.51	1	1	1	0	0	0	0	0
9.05%	3	2	1.54	1	1	1	0	0	0	0	0
9.71%	3	2	1.64	1	1	1	0	0	0	0	0
9.97%	3	3	1.70	1	1	1	0	0	0	0	0
10.23%	4	3	1.73	1	1	1	0	0	0	0	0
10.49%	4	3	1.84	1	1	1	0	0	0	0	0
11.15%	4	3	1.88	1	1	1	0	0	0	0	0
11.80%	4	3	1.93	1	1	1	0	0	0	0	0
12.06%	4	3	1.97	1	1	1	0	0	0	0	0
12.71%	4	3	2.00	1	1	1	1	0	0	0	0
13.37%	4	3	2.03	1	1	1	1	0	0	0	0
14.02%	4	3	2.06	1	1	1	1	0	0	0	0
14.28%	4	3	2.10	2	1	1	1	0	0	0	0
14.54%	4	3	2.16	2	1	1	1	0	0	0	0
15.20%	4	3	2.24	2	1	1	1	0	0	0	0
15.85%	4	3	2.24	2	1	1	1	0	0	0	0
16.75%	5	3	2.31	2	1	1	1	0	0	0	0
17.40%	5	3	2.47	2	1	1	1	0	0	0	0
18.06%	5	4	2.50	2	1	1	1	0	0	0	0
18.12%	5	4	2.59	2	1	1	1	0	0	0	0
18.77%	6	4	2.62	2	1	1	1	1	0	0	0
19.03%	6	4	2.64	2	1	1	1	1	0	0	0
19.69%	6	4	2.67	2	1	1	1	1	0	0	0
20.59%	6	4	2.74	2	1	1	1	1	0	0	0
20.65%	6	4	2.80	2	1	1	1	1	0	0	0
20.91%	6	4	2.83	2	1	1	1	1	0	0	0
21.17%	6	4	2.92	2	1	1	1	1	0	0	0
21.83%	6	4	2.98	2	2	1	1	1	0	0	0
22.73%	6	4	3.00	2	2	1	1	1	1	0	0
23.62%	6	4	3.07	2	2	1	1	1	1	0	0
24.28%	7	5	3.31	2	2	1	1	1	1	0	0
24.93%	8	5	3.37	2	2	1	1	1	1	0	0

25.58%	8	5	3.42	2	2	1	1	1	1	0	0
25.85%	8	5	3.50	3	2	1	1	1	1	0	0
26.74%	8	5	3.63	3	2	1	1	1	1	1	0
27.01%	8	5	3.71	3	2	1	1	1	1	1	0
27.27%	8	6	3.77	3	2	1	1	1	1	1	0
27.53%	8	6	4.06	3	2	1	1	1	1	1	0
27.59%	9	6	4.12	3	2	2	1	1	1	1	0
28.49%	9	6	4.15	3	2	2	1	1	1	1	0
28.75%	9	6	4.18	3	2	2	1	1	1	1	0
29.65%	9	6	4.28	3	2	2	1	1	1	1	0
30.55%	10	6	4.39	3	2	2	1	1	1	1	0
31.20%	10	6	4.51	3	2	2	1	1	1	1	0
32.10%	11	7	4.58	3	2	2	1	1	1	1	0
32.76%	11	7	4.59	3	2	2	1	1	1	1	0
33.66%	11	7	4.75	3	2	2	1	1	1	1	0
34.31%	11	7	4.84	3	3	2	1	1	1	1	1
35.21%	11	7	5.11	4	3	2	1	1	1	1	1
36.11%	11	7	5.14	4	3	2	1	1	1	1	1
37.00%	11	8	5.33	4	3	2	1	1	1	1	1
37.66%	11	8	5.39	4	3	2	1	1	1	1	1
38.56%	12	8	5.74	4	3	2	2	1	1	1	1
39.45%	12	8	5.81	4	3	2	2	1	1	1	1
40.11%	12	9	5.83	4	3	2	2	1	1	1	1
40.37%	13	9	5.85	4	3	2	2	1	1	1	1
40.43%	13	9	5.94	4	3	2	2	1	1	1	1
41.09%	14	9	5.99	4	3	2	2	1	1	1	1
41.99%	14	9	6.32	5	3	2	2	1	1	1	1
42.88%	14	9	6.59	5	3	3	2	1	1	1	1
43.54%	14	9	6.69	5	3	3	2	1	1	1	1
44.44%	14	10	7.11	5	3	3	2	1	1	1	1
45.09%	15	10	7.29	5	3	3	2	1	1	1	1
45.74%	15	10	7.47	5	4	3	2	2	1	1	1
46.64%	15	11	7.67	6	4	3	2	2	1	1	1
47.29%	15	11	7.76	6	4	3	2	2	1	1	1
47.95%	17	12	8.27	6	4	3	2	2	1	1	1
48.85%	17	12	8.98	6	5	3	2	2	1	1	1
49.50%	17	13	9.16	6	5	3	2	2	1	1	1
49.76%	17	13	9.58	7	5	3	2	2	1	1	1
50.02%	17	13	9.67	7	5	3	3	2	1	1	1
50.68%	17	13	9.74	7	5	3	3	2	1	1	1
51.33%	17	13	9.82	7	5	4	3	2	1	1	1
51.98%	18	14	10.13	7	5	4	3	2	1	1	1
52.88%	19	15	10.42	7	5	4	3	2	1	1	1
53.53%	20	15	10.53	7	5	4	3	2	1	1	1
54.43%	20	15	10.66	8	5	4	3	2	1	1	1
55.09%	21	16	10.77	8	6	4	3	2	1	1	1
55.98%	21	16	10.85	8	6	4	3	2	1	1	1
56.64%	21	16	10.97	8	6	4	3	2	1	1	1
57.29%	21	16	11.03	8	6	4	3	2	1	1	1
57.94%	22	17	11.31	8	6	4	3	2	1	1	1
58.60%	23	17	11.61	8	6	4	3	2	2	1	1
58.86%	24	17	11.90	9	6	4	3	2	2	1	1
59.12%	24	18	12.11	9	6	4	3	2	2	1	1
60.02%	25	18	12.55	9	6	4	3	2	2	1	1
60.67%	25	18	12.73	9	6	5	3	2	2	1	1
61.33%	25	19	13.41	9	7	5	3	2	2	1	1
61.98%	27	19	13.79	9	7	5	4	2	2	1	1
62.63%	27	20	14.07	9	7	5	4	3	2	1	1
63.29%	28	21	14.30	10	7	5	4	3	2	1	1
63.94%	28	21	14.62	10	7	5	4	3	2	1	1
64.84%	31	21	14.86	11	7	5	4	3	2	2	1
65.49%	31	22	15.94	11	7	5	4	3	2	2	1
66.39%	33	22	16.14	11	7	5	4	3	2	2	1
67.29%	34	23	16.32	12	8	6	4	3	2	2	1
67.55%	34	23	16.40	12	8	6	4	3	2	2	1
68.20%	34	24	16.69	12	9	6	4	3	2	2	1
68.46%	34	25	17.27	13	9	7	5	3	2	2	1
69.12%	34	25	17.36	13	10	7	5	3	2	2	1
70.02%	34	26	18.42	13	10	7	5	3	2	2	1
70.67%	34	26	18.86	14	10	7	5	3	2	2	1
71.57%	34	27	19.32	14	10	8	5	4	3	2	1
72.22%	35	27	19.51	14	10	8	5	4	3	2	1
73.12%	36	27	19.76	15	11	8	5	4	3	2	2
73.77%	37	28	20.63	15	11	8	5	4	3	2	2
74.03%	36	28	20.86	15	11	8	5	4	3	2	2
74.69%	36	29	21.49	16	11	8	5	4	3	2	2
74.95%	37	30	21.79	16	11	8	6	4	3	2	2
75.85%	40	31	21.83	17	11	8	6	4	3	2	2
76.11%	45	34	22.89	17	12	8	6	4	3	2	2
76.76%	45	34	22.94	17	12	9	6	4	3	2	2
77.03%	47	34	23.22	18	12	9	6	4	3	2	2
77.68%	47	35	23.61	18	13	9	6	4	3	2	2
77.94%	48	35	23.79	18	13	9	6	4	3	3	2
78.59%	48	35	24.94	19	13	9	7	5	3	3	2
78.86%	49	36	25.16	19	13	9	7	5	3	3	2
79.12%	50	37	25.69	19	13	10	7	5	4	3	2
79.38%	50	37	26.59	19	13	10	7	5	4	3	2
79.64%	51	37	26.72	20	13	10	7	5	4	3	2
79.90%	52	38	27.16	20	15	10	8	5	4	3	2
80.16%	53	39	27.58	20	15	11	8	5	4	3	2
80.43%	53	39	27.91	21	15	11	8	5	4	3	2
81.08%	52	40	29.97	21	15	11	8	5	4	3	2
81.34%	56	41	31.67	22	16	11	9	6	4	3	2
81.41%	63	43	32.66	22	16	11	9	6	4	3	2
82.06%	64	43	32.90	23	17	12	9	6	4	3	2
82.96%	64	44	33.23	24	18	12	9	6	4	4	2
83.61%	64	44	33.42	25	18	13	10	7	5	4	2
83.67%	68	47	34.07	27	19	13	10	7	5	4	3
84.33%	70	47	34.25	27	19	13	10	7	5	4	3
84.98%	71	47	34.94	28	20	14	10	7	5	4	3
85.24%	73	48	37.77	29	21	15	11	7	5	4	3
85.90%	69	53	39.55	29	22	15	11	8	6	4	3
86.55%	71	55	39.96	29	22	15	11	8	6	4	3
87.45%	73	55	40.46	30	22	16	12	8	6	4	3
87.51%	74	56	40.81	31	23	16	12	9	6	4	3
87.77%	77	56	41.60	32	23	17	12	9	6	4	3
88.04%	77	58	43.21	32	23	17	12	9	6	5	3
88.10%	82	59	44	32	23	18	12	9	7	5	3
88.36%	83	61	45	33	24	18	13	9	7	5	3
88.62%	86	63	46	34	25	18	13	10	7	5	3
89.28%	87	64	47	34	25	19	13	10	7	5	4
90.18%	88	65	47	35	27	20	14	10	7	5	4
90.24%	98	67	51	37	27	21	14	10	7	5	4
90.50%	97	69	52	39	28	21	14	10	7	5	4
90.76%	101	70	54	40	28	21	14	11	8	5	4
90.83%	103	73	55	40	29	21	15	11	8	5	4
91.48%	103	73	56	41	29	22	15	11	8	5	4
91.54%	104	77	57	42	30	22	16	11	8	6	4
91.61%	106	78	58	42	30	22	16	11	8	6	4
91.67%	106	79	58	43	30	22	16	12	8	6	4
91.74%	108	80	60	43	30	23	17	12	8	6	4
91.80%	112	80	62	44	31	23	17	12	9	6	4
92.06%	113	81	62	44	31	23	17	12	9	6	5
92.13%	112	82	63	45	32	24	18	12	9	6	5
92.19%	113	84	64	45	33	24	18	12	10	6	5
92.26%	126	86	65	46	34	24	19	13	10	7	5
92.52%	128	86	66	46	36	25	20	13	10	7	5
92.58%	131	88	70	49	37	26	20	13	10	7	5
93.23%	129	91	72	54	38	28	21	14	11	7	5
93.50%	127	98	76	56	38	29	22	15	12	7	5
93.56%	130	101	78	58	39	29	22	16	12	8	6
93.82%	132	102	79	60	40	32	24	17	13	8	6
94.08%	144	108	80	64	45	33	24	17	13	8	6
94.98%	147	109	82	65	45	33	24	17	13	9	7
95.24%	149	111	83	65	46	34	24	18	14	9	7
95.31%	153	116	87	67	47	35	25	18	14	10	7
95.37%	152	120	90	67	47	37	27	19	14	10	7
95.64%	159	123	90	69	51	39	29	21	14	11	8
95.70%	160	125	92	73	55	40	30	21	15	11	8
95.76%	168	128	99	75	56	43	31	22	15	12	9
96.42%	175	139	105	79	57	43	31	23	17	12	9
96.48%	184	141	107	80	61	45	32	25	18	13	9
96.55%	188	144	109	85	62	48	33	26	20	13	10
97.20%	196	146	111	88	65	52	42	29	21	14	10
97.26%	209	151	119	92	71	54	45	32	23	18	12
97.52%	222	155	122	95	76	58	45	34	25	18	12
97.59%	259	173	140	108	78	59	46	34	25	19	13
97.65%	260	183	152	115	82	61	48	35	26	19	14
97.91%	265	203	159	120	92	72	50	40	27	19	14
97.98%	275	212	163	122	96	74	52	40	29	20	15
98.04%	286	219	167	125	98	76	55	41	30	21	16
98.11%	294	222	172	128	101	78	56	41	31	22	17
98.17%	292	227	179	139	111	81	58	44	34	23	18
98.82%	331	235	191	146	112	82	60	49	36	28	21
99.09%	340	245	195	158	116	88	71	53	39	29	22
99.35%	341	257	202	161	118	89	72	54	41	30	22
99.41%	371	287	215	175	135	110	79	62	48	35	25
99.48%	396	294	221	180	136	115	90	71	56	44	34
99.74%	499	404	341	261	205	157	119	90	68	49	36
99.80%	557	418	345	291	229	196	160	124	100	76	60
99.87%	589	470	402	337	276	215	179	132	102	86	65
99.93%	733	529	426	341	279	226	182	149	123	102	84
100.00%	878	716	613	513	445	364	307	262	209	175	143
	12.00%	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.2	0.21	0.22
	Exposure	Exposure	Exposure								

0.06%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.13%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.19%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.26%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.32%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.39%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.45%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.51%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.58%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.64%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.71%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.77%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
0.83%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.10%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.16%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.22%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.29%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.35%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.62%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.68%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
1.94%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
2.01%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
2.07%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
2.13%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
2.20%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
2.46%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
2.52%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
2.79%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
3.05%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
3.31%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
3.37%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
3.64%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
3.70%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
3.96%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
4.22%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
4.48%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
4.75%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
5.40%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
5.66%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
5.92%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
5.99%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
6.64%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
6.90%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
7.56%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
7.82%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
7.88%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
7.95%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
8.21%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
8.27%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
8.34%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
8.40%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
9.05%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
9.71%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
9.97%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
10.23%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
10.49%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
11.15%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
11.80%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
12.06%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
12.71%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
13.37%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
14.02%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
14.28%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
14.54%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
15.20%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
15.85%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
16.75%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
17.40%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
18.06%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
18.12%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
18.77%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
19.03%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
19.69%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
20.59%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
20.65%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
20.91%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
21.17%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
21.83%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
22.73%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
23.62%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
24.28%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
24.93%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
25.58%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
25.85%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
26.74%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
27.01%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
27.27%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
27.53%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
27.59%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
28.49%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
28.75%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
29.65%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
30.55%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
31.20%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
32.10%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
32.76%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
33.66%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
34.31%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
35.21%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
36.11%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
37.00%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
37.66%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
38.56%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
39.45%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
40.11%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
40.37%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
40.43%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
41.09%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
41.99%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
42.88%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
43.54%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
44.44%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
45.09%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
45.74%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
46.64%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
47.29%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
47.95%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
48.85%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
49.50%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
49.76%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
50.02%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
50.68%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
51.33%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
51.98%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
52.88%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
53.53%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
54.43%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
55.09%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
55.98%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
56.64%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
57.29%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
57.94%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
58.60%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
58.86%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
59.12%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
60.02%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
60.67%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
61.33%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
61.98%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
62.63%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
63.29%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
63.94%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
64.84%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
65.49%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
66.39%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
67.29%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
67.55%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
68.20%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
68.46%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
69.12%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
70.02%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
70.67%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
71.57%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
72.22%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
73.12%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
73.77%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
74.03%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
74.69%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
74.95%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
75.85%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
76.11%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
76.76%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
77.03%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
77.68%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
77.94%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
78.59%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
78.86%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44

79.12%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
79.38%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
79.64%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
79.90%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
80.16%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
80.43%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
81.08%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
81.34%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
81.41%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
82.06%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
82.96%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
83.61%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
83.67%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
84.33%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
84.98%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
85.24%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
85.90%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
86.55%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
87.45%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
87.51%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
87.77%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
88.04%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
88.10%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
88.36%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
88.62%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
89.28%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
90.18%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
90.24%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
90.50%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
90.76%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
90.83%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
91.48%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
91.54%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
91.61%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
91.67%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
91.74%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
91.80%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
92.06%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
92.13%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
92.19%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
92.26%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
92.52%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
92.58%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
93.23%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
93.50%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
93.56%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
93.82%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
94.08%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
94.98%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
95.24%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
95.31%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
95.37%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
95.64%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
95.70%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
95.76%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
96.42%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
96.48%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
96.55%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
97.20%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
97.26%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
97.52%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
97.59%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
97.65%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
97.91%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
97.98%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
98.04%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
98.11%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
98.17%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
98.82%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.09%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.35%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.41%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.48%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.74%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.80%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.87%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
99.93%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44
100.00%	31.81	38.18	44.54	50.90	57.26	63.63	69.99	76.35	82.72	89.08	95.44

Base Case Carrying Cost Assumption 88.42

Load	Resources	Reserve Margin	LOLE	LOLH	Carrying Cost	Production Costs above a CT	Reliability Purchases	Emergency Purchases	EUE	Total Reliability Costs	
7196	7,762	7.86%			6,363					6,363	
7196	7,868	9.34%	0.6825000	1.374	15,735	94	65,139	-	7,797	88,765	
7196	8,009	11.30%	0.5123700	1.046	28,238	311	42,257	-	5,706	76,512	12%
7196	8,080	12.28%	0.4327000	0.886	34,489	310	31,718	-	4,816	71,333	13%
7196	8,151	13.27%	0.3586600	0.736	40,740	316	23,245	-	3,910	68,211	14%
7196	8,221	14.25%	0.2979	0.6317	46,992	314	17,410	-	3,215	67,932	16%
7196	8,292	15.23%	0.2514	0.5230	53,243	319	13,166	-	2,632	69,360	17%
7196	8,363	16.21%	0.2082	0.4437	59,494	321	9,443	-	2,119	71,377	18%
7196	8,434	17.20%	0.1754	0.3706	65,746	323	7,137	-	1,766	74,971	20%
7196	8,504	18.18%	0.1462	0.3098	71,997	332	5,098	-	1,426	78,853	22%
7196	8,575	19.16%	0.1187	0.2513	78,248	329	3,618	-	1,113	83,308	24%
7196	8,646	20.14%	0.0978	0.2130	84,499	333	2,570	-	892	88,295	
7196	8,716	21.13%	0.0785	0.1686	90,751	344	1,836	-	705	93,635	
7196	8,858	23.09%	0.0499	0.1084	103,253	347	880	-	422	104,902	1000

7867.6

Reserve Margin			LOLE	LOLH	CT Carrying Cost	Production Costs above a CT	Reliability Purchases	Emergency Purchases	EUE	Total Reliability Costs	Reserve Margin
8.0000%	2.4	0.1	0.830	1.654	6.36	0.042	87.445	-	9.642	103.49	8.00%
8.2500%	2.4	0.1	0.800	1.598	8	0.049	82.761	-	9.267	100.03	8.25%
8.5000%	2.4	0.1	0.771	1.543	10	0.057	78.327	-	8.906	96.83	8.50%
8.7500%	2.4	0.1	0.744	1.491	11	0.066	74.131	-	8.559	93.89	8.75%
9.0000%	2.4	0.1	0.717	1.440	13	0.077	70.160	-	8.226	91.19	9.00%
9.2500%	2.4	0.1	0.691	1.391	14	0.089	66.401	-	7.905	88.71	9.25%
9.5000%	2.4	0.1	0.666	1.343	16	0.104	62.844	-	7.597	86.45	9.50%
9.7500%	2.4	0.1	0.643	1.297	17	0.121	59.478	-	7.302	84.40	9.75%
10.0000%	2.4	0.1	0.620	1.253	19	0.141	56.291	-	7.017	82.54	10.00%
10.2500%	2.4	0.1	0.597	1.210	21	0.164	53.276	-	6.744	80.86	10.25%
10.5000%	2.4	0.1	0.576	1.169	22	0.191	50.422	-	6.481	79.36	10.50%
10.7500%	2.4	0.1	0.555	1.129	24	0.222	47.721	-	6.229	78.03	10.75%
11.0000%	2.4	0.1	0.540	1.101	25	0.259	45.164	-	5.986	76.86	11.00%
11.2500%	2.4	0.1	0.517	1.055	27	0.301	42.745	-	5.753	75.84	11.25%
11.5000%	2.4	0.1	0.495	1.012	29	0.311	39.885	-	5.514	74.34	11.50%
11.7500%	2.4	0.1	0.474	0.970	30	0.310	37.077	-	5.281	72.89	11.75%
12.0000%	2.4	0.1	0.454	0.930	31.81	0.310	34.467	-	5.058	71.65	12.00%
12.2500%	2.4	0.1	0.435	0.891	33	0.310	32.041	-	4.845	70.60	12.25%
12.5000%	2.4	0.1	0.415	0.851	34.99	0.311	29.629	-	4.601	69.54	12.50%
12.7500%	2.4	0.1	0.396	0.811	37	0.312	27.376	-	4.363	68.64	12.75%
13.0000%	2.4	0.1	0.377	0.774	38	0.314	25.294	-	4.138	67.92	13.00%
13.2500%	2.4	0.1	0.360	0.738	40	0.315	23.371	-	3.924	67.38	13.25%
13.5000%	2.4	0.1	0.343	0.710	41	0.315	21.705	-	3.733	67.11	13.50%
13.7500%	2.4	0.1	0.327	0.683	43	0.315	20.166	-	3.552	66.98	13.75%
14.0000%	2.4	0.1	0.312	0.657	44.54	0.315	18.737	-	3.379	66.97	14.00%
14.2500%	2.4	0.1	0.298	0.632	46	0.314	17.408	-	3.215	67.07	14.25%
14.5000%	2.4	0.1	0.285	0.602	48	0.316	16.213	-	3.055	67.30	14.50%
14.7500%	2.4	0.1	0.273	0.574	49	0.317	15.101	-	2.904	67.63	14.75%
15.0000%	2.4	0.1	0.262	0.547	51	0.318	14.064	-	2.759	68.04	15.00%
15.2500%	2.4	0.1	0.251	0.521	52	0.320	13.099	-	2.622	68.53	15.25%
15.5000%	2.4	0.1	0.239	0.500	54	0.320	12.025	-	2.481	68.91	15.50%
15.7500%	2.4	0.1	0.228	0.480	56	0.320	11.050	-	2.347	69.39	15.75%
16.0000%	2.4	0.1	0.217	0.460	57	0.320	10.154	-	2.221	69.96	16.00%
16.2500%	2.4	0.1	0.207	0.441	59	0.321	9.331	-	2.102	70.61	16.25%
16.5000%	2.4	0.1	0.198	0.421	60	0.321	8.706	-	2.009	71.48	16.50%
16.7500%	2.4	0.1	0.190	0.402	62	0.322	8.107	-	1.918	72.38	16.75%
17.0000%	2.4	0.1	0.182	0.384	64	0.322	7.549	-	1.831	73.33	17.00%
17.2500%	2.4	0.1	0.174	0.367	65	0.323	7.030	-	1.749	74.32	17.25%
17.5000%	2.4	0.1	0.166	0.351	67	0.325	6.434	-	1.653	75.22	17.50%
17.7500%	2.4	0.1	0.158	0.335	68	0.328	5.906	-	1.566	76.20	17.75%
18.0000%	2.4	0.1	0.151	0.320	70	0.330	5.422	-	1.483	77.22	18.00%
18.2500%	2.4	0.1	0.144	0.306	72	0.332	4.977	-	1.405	78.29	18.25%
18.5000%	2.4	0.1	0.137	0.289	73	0.331	4.559	-	1.315	79.38	18.50%
18.7500%	2.4	0.1	0.130	0.274	75	0.330	4.178	-	1.235	80.50	18.75%
19.0000%	2.4	0.1	0.123	0.260	76	0.329	3.829	-	1.159	81.67	19.00%
19.2500%	2.4	0.1	0.117	0.247	78	0.328	3.509	-	1.088	82.87	19.25%
19.5000%	2.4	0.1	0.111	0.237	80	0.330	3.217	-	1.031	84.11	19.50%
19.7500%	2.4	0.1	0.106	0.228	81	0.331	2.949	-	0.975	85.38	19.75%
20.0000%	2.4	0.1	0.101	0.218	83	0.333	2.703	-	0.921	86.67	20.00%
20.2500%	2.4	0.1	0.096	0.209	84	0.334	2.478	-	0.871	87.99	20.25%
20.5000%	2.4	0.1	0.090	0.196	86	0.337	2.276	-	0.819	89.33	20.50%
20.7500%	2.4	0.1	0.085	0.184	87	0.340	2.089	-	0.771	90.69	20.75%
21.0000%	2.4	0.1	0.081	0.174	89	0.343	1.917	-	0.726	92.06	21.00%
21.2500%	2.4	0.1	0.076	0.164	91	0.345	1.760	-	0.684	93.46	21.25%
21.5000%	2.4	0.1	0.072	0.155	92	0.344	1.596	-	0.639	94.84	21.50%
21.7500%	2.4	0.1	0.068	0.147	94	0.345	1.454	-	0.599	96.25	21.75%
22.0000%	2.4	0.1	0.064	0.139	95	0.345	1.324	-	0.561	97.67	22.00%
22.2500%	2.4	0.1	0.061	0.131	97	0.346	1.206	-	0.525	99.11	22.25%
22.5000%	2.4	0.1	0.057	0.124	99	0.346	1.098	-	0.492	100.56	22.50%
22.7500%	2.4	0.1	0.054	0.117	100	0.346	1.000	-	0.461	102.02	22.75%
23.0000%	2.4	0.1	0.051	0.111	102	0.347	0.911	-	0.432	103.49	23.00%
23.2500%	2.4	0.1	0.048	0.105	103	0.347	0.829	-	0.405	104.98	23.25%
23.5000%	2.4	0.1	0.045	0.099	105	0.347	0.755	-	0.379	106.47	23.50%
23.7500%	2.4	0.1	0.043	0.093	107	0.348	0.688	-	0.355	107.97	23.75%
24.0000%	2.4	0.1	0.040	0.088	108	0.348	0.627	-	0.333	109.47	24.00%
24.2500%	2.4	0.1	0.038	0.084	110	0.348	0.571	-	0.312	110.99	24.25%
24.5000%	2.4	0.1	0.036	0.079	111	0.349	0.520	-	0.292	112.51	24.50%
24.7500%	2.4	0.1	0.034	0.075	113	0.349	0.473	-	0.273	114.03	24.75%

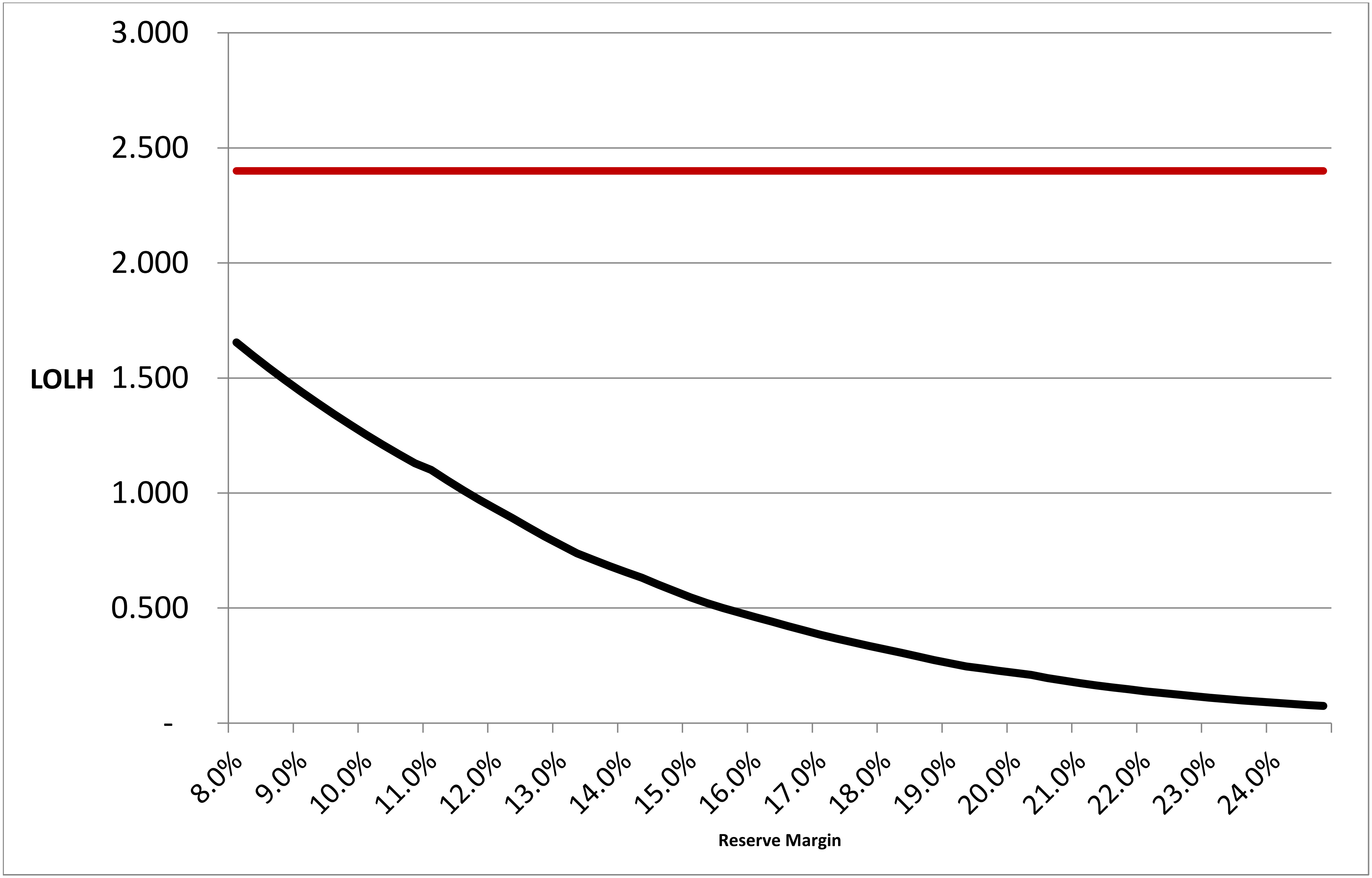
Carrying Cost $/kw-yr	Optimal Reserve Margin	Impact to Economical Reserve Margin
60.00	15.75%	1.75%
70.00	14.75%	0.75%
80.00	14.25%	0.25%
88.42	14.00%	Base Line
90.00	13.75%	-0.25%
100.00	13.50%	-0.50%
110.00	13.25%	-0.75%
120.00	13.00%	-1.00%
130.00	12.75%	-1.25%

Capacity Cost	Minimum Cost		Optimal Reserve Margin
88.42		67	14.00%

Cost of EUE $/MWH	Optimal Reserve Margin	Impact to Economical Reserve Margin
5000	13.75%	-0.25%
6000	13.75%	-0.25%
7000	13.75%	-0.25%
8000	13.75%	-0.25%
9000	13.75%	-0.25%
10000	13.75%	-0.25%
11000	13.75%	-0.25%
12000	13.75%	-0.25%
13000	13.75%	-0.25%
14000	13.75%	-0.25%
15000	13.75%	-0.25%
16000	14.00%	0.00%
16600	14.00%	Base Line
17000	14.00%	0.00%
18000	14.00%	0.00%
19000	14.00%	0.00%
20000	14.00%	0.00%
21000	14.00%	0.00%
22000	14.00%	0.00%
23000	14.00%	0.00%
24000	14.00%	0.00%
25000	14.00%	0.00%
26000	14.00%	0.00%
27000	14.25%	0.25%
28000	14.25%	0.25%
29000	14.25%	0.25%
30000	14.25%	0.25%

EUE	Minimum Cost		Optimal Reserve Margin
16600		67	14.00%

		Impact to Economical Reserve Margin
		-0.50%
		-0.50%
80.00	11.75%	-0.25%
100.00	11.25%	-0.25%
120.00	11.00%	0.00%
		0.00%
		Base Line
		0.25%
		0.25%
		0.50%
		0.50%
		0.75%
		1.00%
		1.00%


3.000
2.500
2.000
LOLH
1.500
1.000
0.500
-
8.0%
9.0%
10.0%
11.0%
12.0%
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14.0%
15.0%
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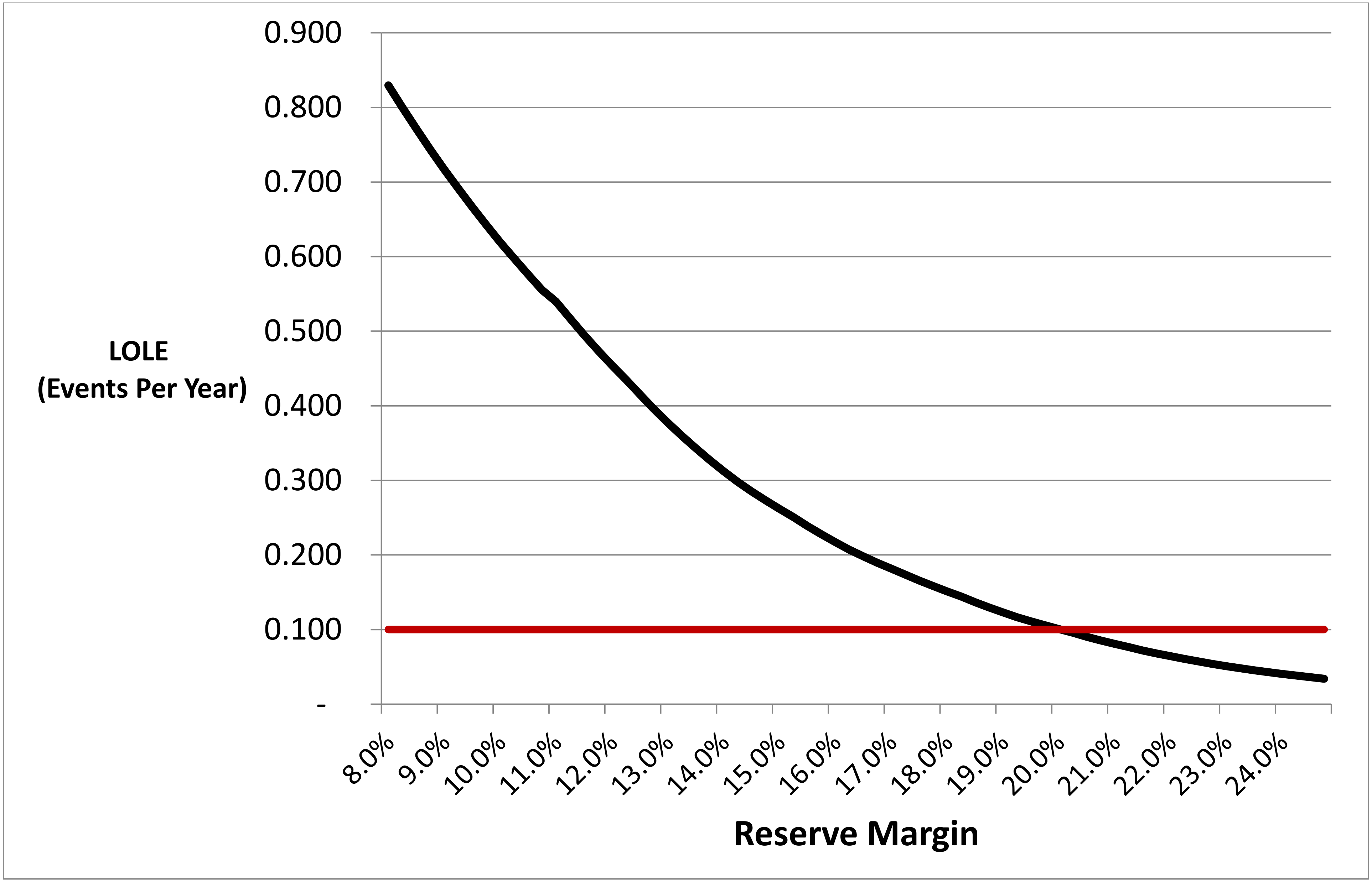
24.0%
Reserve Margin



0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
-
LOLE
(Events Per Year)
8.0%
9.0%
10.0%
11.0%
12.0%
13.0%
14.0%
15.0%
16.0%
17.0%
18.0%
19.0%
20.0%
21.0%
22.0%
23.0%
24.0%
Reserve Margin

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations
1	1	2016	4.82	0	15290.86	0	295300.59	922.65	16600	71.47	0	22195	0.000642	1975 Hourly	2016	-4.76	400
2	2	2016	6.64	0	21816.28	0	295300.91	1325.65	16600	159.27	0	35806.25	0.002618	1975 Hourly	2016	-3.05	400
3	3	2016	16.53	0	29049.59	0	295304.84	1900.96	16600	286.02	0	49080.68	0.006532	1975 Hourly	2016	-1.53	400
4	4	2016	36.9	0	37659.01	0	295302.38	2992.49	16600	549.78	0	67089.88	0.008986	1975 Hourly	2016	0	400
5	5	2016	78.51	0	49245.87	0	295297.47	5343.57	16600	1002.14	0	89530.42	0.006532	1975 Hourly	2016	1.53	400
6	6	2016	108.41	0	62572.17	0	295303.72	8911.12	16600	1554.94	0	118496.16	0.002618	1975 Hourly	2016	3.05	400
7	7	2016	225.07	0	80736.58	0	295299.59	14346.49	16600	2674.17	0	156126.82	0.000642	1975 Hourly	2016	4.76	400
8	8	2016	3.29	0	15561.52	0	296220.66	849.18	16600	165.47	0	30215.01	0.000642	1976 Hourly	2016	-4.76	400
9	9	2016	5.75	0	21853.13	0	296217.66	1257.83	16600	275.14	0	44261.38	0.002618	1976 Hourly	2016	-3.05	400
10	10	2016	8.79	0	27980.92	0	296223.19	1835.73	16600	517.29	0	57992.43	0.006532	1976 Hourly	2016	-1.53	400
11	11	2016	36.16	0	35913.08	0	296220.44	2830.6	16600	942.33	0	77511.98	0.008986	1976 Hourly	2016	0	400
12	12	2016	43.58	0	44821.47	0	296215.75	4664.31	16600	1260.35	0	102909.96	0.006532	1976 Hourly	2016	1.53	400
13	13	2016	103.33	0	57821.3	0	296018.47	7826.23	16600	2188.07	0	129166.45	0.002618	1976 Hourly	2016	3.05	400
14	14	2016	367.91	0	71696.26	0	296216.97	12029.04	16600	3336.1	0	165123.38	0.000642	1976 Hourly	2016	4.76	400
15	15	2016	42.82	0	30998.46	0	295305.47	1705.65	16600	123.96	0	55674.92	0.000642	1977 Hourly	2016	-4.76	400
16	16	2016	67.59	0	43860.58	0	295302.84	2480.07	16600	232.31	0	83243.79	0.002618	1977 Hourly	2016	-3.05	400
17	17	2016	173.86	0	60654.25	0	295302.88	3622.67	16600	494.64	0	116837.56	0.006532	1977 Hourly	2016	-1.53	400
18	18	2016	408.36	0	75949.99	0	295303.72	5486.73	16600	771.33	0	155482.82	0.008986	1977 Hourly	2016	0	400
19	19	2016	1356.53	0	96579.12	0	295301.09	9343.26	16600	1366.4	0	203613.96	0.006532	1977 Hourly	2016	1.53	400
20	20	2016	3754.56	0	123029.69	0	295302.03	13826.79	16600	2105.75	0	263234.62	0.002618	1977 Hourly	2016	3.05	400
21	21	2016	11452.74	0	154349.4	0	295300.09	16008.97	16600	3272.94	0	343743.3	0.000642	1977 Hourly	2016	4.76	400
22	22	2016	14.62	0	15790.43	0	295303.28	923.45	16600	113.7	0	29967.28	0.000642	1978 Hourly	2016	-4.76	400
23	23	2016	23.11	0	23487.91	0	295304.81	1417.71	16600	222.25	0	44922.62	0.002618	1978 Hourly	2016	-3.05	400
24	24	2016	45.9	0	30411.44	0	295297.44	2090.43	16600	355.77	0	62577.48	0.006532	1978 Hourly	2016	-1.53	400
25	25	2016	100.67	0	41378.05	0	295305.03	3387.11	16600	727.73	0	87471.99	0.008986	1978 Hourly	2016	0	400
26	26	2016	309.98	0	54420.37	0	295301.81	5938.9	16600	1233.85	0	120231.41	0.006532	1978 Hourly	2016	1.53	400
27	27	2016	945.4	0	67709.88	0	295299.69	9759.58	16600	1864.79	0	154811.88	0.002618	1978 Hourly	2016	3.05	400
28	28	2016	2617.41	0	86699.75	0	295305.53	14662.7	16600	2952.71	0	207044.9	0.000642	1978 Hourly	2016	4.76	400
29	29	2016	5.59	0	13402.76	0	295929.81	800.03	16600	120.77	0	26867.06	0.000642	1979 Hourly	2016	-4.76	400
30	30	2016	9.36	0	19070.8	0	295927.66	1163.44	16600	276.36	0	39292.18	0.002618	1979 Hourly	2016	-3.05	400
31	31	2016	23.26	0	25983.27	0	295927.38	1760.81	16600	452.42	0	54975.97	0.006532	1979 Hourly	2016	-1.53	400
32	32	2016	33.4	0	33299.23	0	295929.91	2680.51	16600	691.14	0	73857.74	0.008986	1979 Hourly	2016	0	400
33	33	2016	60	0	43458.22	0	295932.41	4615.94	16600	1120.17	0	101548.78	0.006532	1979 Hourly	2016	1.53	400
34	34	2016	130.5	0	56298.98	0	295930.09	7970.47	16600	1735.46	0	135461.86	0.002618	1979 Hourly	2016	3.05	400
35	35	2016	443.12	0	73135.72	0	295931.56	12865.68	16600	2827.16	0	179707.14	0.000642	1979 Hourly	2016	4.76	400
36	36	2016	30.33	0	28374.23	0	295479.31	1544.88	16600	137.4	0	52097.42	0.000642	1980 Hourly	2016	-4.76	400
37	37	2016	92.28	0	40342.24	0	295482.19	2408.65	16600	335.15	0	74320	0.002618	1980 Hourly	2016	-3.05	400
38	38	2016	120.25	0	52101.71	0	295480.69	3551.43	16600	549.26	0	97306.76	0.006532	1980 Hourly	2016	-1.53	400
39	39	2016	210.6	0	67823.47	0	295483.25	5728.01	16600	908.37	0	132303.22	0.008986	1980 Hourly	2016	0	400
40	40	2016	459.73	0	82277.31	0	295480.59	9396.63	16600	1572.07	0	163131.95	0.006532	1980 Hourly	2016	1.53	400
41	41	2016	1202.55	0	101360.93	0	295482.44	14382.02	16600	2521.38	0	202354.5	0.002618	1980 Hourly	2016	3.05	400
42	42	2016	3111.24	0	130811.08	0	295482.25	18117.58	16600	3955.75	0	256986.21	0.000642	1980 Hourly	2016	4.76	400
43	43	2016	6.25	0	10728.72	0	296013.88	672.47	16600	86.34	0	17308.1	0.000642	1981 Hourly	2016	-4.76	400
44	44	2016	7.81	0	16322.43	0	296013.03	1028.24	16600	178.73	0	26497.18	0.002618	1981 Hourly	2016	-3.05	400
45	45	2016	13.99	0	22701.7	0	296011.75	1522.83	16600	327.53	0	37435.76	0.006532	1981 Hourly	2016	-1.53	400
46	46	2016	44.97	0	28700.01	0	296012.22	2283.37	16600	482.3	0	52087.64	0.008986	1981 Hourly	2016	0	400
47	47	2016	95.72	0	38750.47	0	296013.44	4146.46	16600	919.75	0	75330.61	0.006532	1981 Hourly	2016	1.53	400
48	48	2016	301.59	0	49534.76	0	296011.53	7282.66	16600	1492.29	0	100250.5	0.002618	1981 Hourly	2016	3.05	400
49	49	2016	898.1	0	61781.95	0	294904.69	12235.44	16600	2507.42	0	137520.56	0.000642	1981 Hourly	2016	4.76	400
50	50	2016	7.53	0	15262.26	0	296814.22	885.8	16600	77.82	0	27038.95	0.000642	1982 Hourly	2016	-4.76	400
51	51	2016	13.23	0	22264.65	0	296815.06	1302.44	16600	232.72	0	37307.28	0.002618	1982 Hourly	2016	-3.05	400
52	52	2016	27.71	0	27433.24	0	296817.69	1784.61	16600	343.94	0	49641.68	0.006532	1982 Hourly	2016	-1.53	400
53	53	2016	58.53	0	40237.22	0	296814.75	3080.28	16600	596.47	0	73927.16	0.008986	1982 Hourly	2016	0	400
54	54	2016	288.19	0	50304.51	0	296813.97	5196.15	16600	1025.69	0	96853.9	0.006532	1982 Hourly	2016	1.53	400
55	55	2016	1031.13	0	64499.67	0	296813.78	8732.98	16600	1833.36	0	130352.65	0.002618	1982 Hourly	2016	3.05	400
56	56	2016	3219.04	0	78927.59	0	296814.25	13398.44	16600	2663.57	0	170166.56	0.000642	1982 Hourly	2016	4.76	400
57	57	2016	217.26	0	51837.5	0	295752.91	2781.66	16600	296.13	0	79228.81	0.000642	1983 Hourly	2016	-4.76	400
58	58	2016	383.76	0	68853.32	0	295759.59	4198.08	16600	613.26	0	110122.22	0.002618	1983 Hourly	2016	-3.05	400
59	59	2016	1149.86	0	86536.34	0	295760.69	6549.35	16600	1006.38	0	138276.28	0.006532	1983 Hourly	2016	-1.53	400
60	60	2016	3272.07	0	101855.55	0	295759.31	10153.18	16600	1649.59	0	169174.5	0.008986	1983 Hourly	2016	0	400
61	61	2016	7386.43	0	117413.58	0	295761.44	14928.78	16600	2394.59	0	200918.42	0.006532	1983 Hourly	2016	1.53	400
62	62	2016	17652.62	0	138479.03	0	295755.91	18598.16	16600	3271.18	0	246590.48	0.002618	1983 Hourly	2016	3.05	400
63	63	2016	34044.78	0	162944.94	0	295757.06	20628.68	16600	4160.92	0	311876.08	0.000642	1983 Hourly	2016	4.76	400
64	64	2016	2.65	0	13752.26	0	295299.5	788.35	16600	128.99	0	22067.41	0.000642	1984 Hourly	2016	-4.76	400
65	65	2016	15.06	0	20245.92	0	295300.22	1234.4	16600	361.17	0	32431.96	0.002618	1984 Hourly	2016	-3.05	400
66	66	2016	21.7	0	26052.67	0	295300.97	1759	16600	450.35	0	43518.02	0.006532	1984 Hourly	2016	-1.53	400
67	67	2016	45.25	0	33971.81	0	295302.31	2669.03	16600	711.63	0	60465.6	0.008986	1984 Hourly	2016	0	400
68	68	2016	118.17	0	42533.94	0	295302.62	4548.93	16600	1203.29	0	78831.16	0.006532	1984 Hourly	2016	1.53	400
69	69	2016	378.84	0	53783.17	0	295299.34	7565.97	16600	1761.5	0	105475.76	0.002618	1984 Hourly	2016	3.05	400
70	70	2016	1017.96	0	71381.61	0	295302.25	12480.69	16600	2991.88	0	146557.74	0.000642	1984 Hourly	2016	4.76	400
71	71	2016	0.72	0	9097.51	0	295932.41	562.84	16600	67.64	0	13804.9	0.000642	1985 Hourly	2016	-4.76	400
72	72	2016	7.27	0	13547.23	0	295931.59	866.91	16600	168.6	0	22298.9	0.002618	1985 Hourly	2016	-3.05	400
73	73	2016	28.02	0	17631.38	0	295931.62	1207.75	16600	418.74	0	29827.62	0.006532	1985 Hourly	2016	-1.53	400
74	74	2016	30.77	0	23950.81	0	295930.34	1911.45	16600	538.99	0	42745.33	0.008986	1985 Hourly	2016	0	400
75	75	2016	62.47	0	32728.87	0	295930.56	3470.55	16600	1023.88	0	60680.42	0.006532	1985 Hourly	2016	1.53	400
76	76	2016	81.41	0	42178.78	0	295929.53	5930.95	16600	1461.24	0	81742.26	0.002618	1985 Hourly	2016	3.05	400
77	77	2016	144.48	0	53231.41	0	295930.25	10398.77	16600	2349	0	113769.16	0.000642	1985 Hourly	2016	4.76	400
78	78	2016	10.88	0	24816.16	0	295849.72	1319.7	16600	253.04	0	40579	0.000642	1986 Hourly	2016	-4.76	400
79	79	2016	5.82	0	32144.67	0	295845.41	1879.28	16600	600.45	0	54482.06	0.002618	1986 Hourly	2016	-3.05	400
80	80	2016	23.45	0	41807.7	0	295845.97	2786.33	16600	791.96	0	74334.09	0.006532	1986 Hourly	2016	-1.53	400
81	81	2016	38.68	0	54692.74	0	295850.59	4383.49	16600	1274.85	0	97646.54	0.008986	1986 Hourly	2016	0	400
82	82	2016	74.9	0	68032.01	0	295843.47	7110.07	16600	2049	0	123277.4	0.006532	1986 Hourly	2016	1.53	400
83	83	2016	105.47	0	85436.85	0	295843	11135.62	16600	2807.53	0	158565	0.002618	1986 Hourly	2016	3.05	400
84	84	2016	199.29	0	106249.15	0	295846.31	15250.9	16600	3940.83	0	204523.94	0.000642	1986 Hourly	2016	4.76	400
85	85	2016	11.62	0	20636.1	0	296563	1163.83	16600	97.01	0	34703.2	0.000642	1987 Hourly	2016	-4.76	400
86	86	2016	22.15	0	29712.9	0	296560.25	1743.46	16600	230.15	0	51685.76	0.002618	1987 Hourly	2016	-3.05	400
87	87	2016	51.45	0	38482.76	0	296563.81	2552.52	16600	443.43	0	68284.37	0.006532	1987 Hourly	2016	-1.53	400
88	88	2016	81.95	0	51152.2	0	296563.81	4029.23	16600	719.28	0	91184	0.008986	1987 Hourly	2016	0	400
89	89	2016	113.31	0	63937.5	0	296562.59	6883.32	16600	1288.14	0	119816.11	0.006532	1987 Hourly	2016	1.53	400
90	90	2016	231.72	0	79523.98	0	296561.34	11045.65	16600	1908.4	0	154705.39	0.002618	1987 Hourly	2016	3.05	400

No	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	Production Costs	Reliability Purchases	Emergency Purchases	EUE						
1	51.367704	0	701.60184	14.24919	**94**	**65,139**	**-**	**7,797**	1,195,045	80,012	-	1,092,838	22,195	0.5923413
2	288.566432	0	9096.7094	93.740763					3,620,709	110,224	-	3,474,679	35,806	3.4705517
3	1792.367736	0	54272.845	320.595					8,632,242	274,398	-	8,308,764	49,081	12.417071
4	5504.28444	0	186047.68	602.86966					21,383,800	612,540	-	20,704,171	67,090	26.890515
5	8512.933512	0	322362.41	584.8127					50,744,053	1,303,266	-	49,351,256	89,530	34.904199
6	4711.368508	0	254720.85	310.22295					99,214,072	1,799,606	-	97,295,970	118,496	23.329312
7	2398.616004	0	138609.94	100.23342					219,795,629	3,736,162	-	215,903,340	156,127	9.2104466
8	35.062188	0	1653.1273	19.398036					2,659,794	54,614	-	2,574,965	30,215	0.5451736
9	249.8881	0	15741.171	115.87629					6,152,382	95,450	-	6,012,670	44,261	3.2929989
10	953.110248	0	94545.802	378.80655					14,678,157	145,914	-	14,474,250	57,992	11.990988
11	5393.900416	0	304103.97	696.52265					34,519,741	600,256	-	33,841,973	77,512	25.435772
12	4725.431696	0	368997.51	672.20786					57,317,078	723,428	-	56,490,740	102,910	30.467273
13	4490.597804	0	331221.64	338.15777					128,361,496	1,715,278	-	126,517,052	129,166	20.48907
14	3920.890452	0	153557.34	106.00921					245,458,322	6,107,306	-	239,185,893	165,123	7.7226437
15	456.341304	0	2466.9294	35.743299					4,609,056	710,812	-	3,842,569	55,675	1.0950273
16	2937.380292	0	26675.46	217.93224					11,394,489	1,121,994	-	10,189,251	83,244	6.4928233
17	18851.84843	0	195973.18	763.18294					33,004,932	2,886,076	-	30,002,018	116,838	23.66328
18	60914.08114	0	526422.4	1397.1686					65,516,765	6,778,776	-	58,582,506	155,483	49.303756
19	147090.1757	0	862000.01	1330.0064					154,687,722	22,518,398	-	131,965,710	203,614	61.030174
20	163168.6721	0	678244.66	689.14824					321,658,700	62,325,696	-	259,069,770	263,235	36.198536
21	122054.1407	0	324323.2	220.6832					695,635,553	190,115,484	-	505,176,325	343,743	10.277759
22	155.808264	0	1152.6288	19.238994					2,068,031	242,692	-	1,795,372	29,967	0.5928549
23	1004.332868	0	13666.452	117.60742					5,648,737	383,626	-	5,220,188	44,923	3.7115648
24	4976.99208	0	70672.83	408.7561					11,643,995	761,940	-	10,819,478	62,577	13.654689
25	15016.70229	0	270586.87	786.0233					31,870,642	1,671,122	-	30,112,048	87,472	30.43657
26	33611.50338	0	438601.42	785.35157					72,412,473	5,145,668	-	67,146,574	120,231	38.792895
27	41085.94952	0	330561	405.2975					142,113,159	15,693,640	-	126,264,707	154,812	25.55058
28	27894.26185	0	164351.5	132.92283					299,655,270	43,449,006	-	255,999,219	207,045	9.4134534
29	59.573748	0	1039.1742	17.248653					1,738,312	92,794	-	1,618,651	26,867	0.5136193
30	406.774368	0	13797.924	102.86693					5,465,074	155,376	-	5,270,406	39,292	3.0458859
31	2522.109712	0	76785.953	359.10304					12,196,443	386,116	-	11,755,351	54,976	11.501611
32	4982.19784	0	206807.67	663.68565					23,642,728	554,440	-	23,014,430	73,858	24.087063
33	6505.872	0	317981.64	663.31663					49,778,143	996,000	-	48,680,594	101,549	30.15132
34	5671.3734	0	255790.72	354.63915					100,006,390	2,166,300	-	97,704,628	135,462	20.86669
35	4722.418464	0	132744.02	115.37198					214,301,881	7,355,792	-	206,766,382	179,707	8.2597666
36	323.232876	0	2502.9135	33.446544					4,454,195	503,478	-	3,898,619	52,097	0.991813
37	4010.378064	0	35397.197	194.56976					15,126,870	1,531,848	-	13,520,702	74,320	6.3058457
38	13038.8518	0	186928.76	635.60776					30,710,842	1,996,150	-	28,617,385	97,307	23.197941
39	31414.69656	0	553616.73	1188.8767					65,237,069	3,495,960	-	61,608,805	132,303	51.471898
40	49849.07558	0	844886.05	1065.5779					137,140,341	7,631,518	-	129,345,691	163,132	61.378787
41	52261.37994	0	669080.75	529.76408					275,734,106	19,962,330	-	255,569,422	202,355	37.652128
42	33157.10693	0	332206.71	164.98515					569,359,500	51,646,584	-	517,455,930	256,986	11.631486
43	66.6075	0	594.69595	11.1118					1,047,376	103,750	-	926,318	17,308	0.4317257
44	339.413228	0	7637.5121	69.369617					3,073,451	129,646	-	2,917,308	26,497	2.6919323
45	1516.952488	0	48568.606	244.53038					7,705,158	232,234	-	7,435,488	37,436	9.9471256
46	6708.066972	0	124384.35	468.05953					14,640,604	746,502	-	13,842,015	52,088	20.518363
47	10379.03446	0	232805.34	492.05954					37,305,027	1,588,952	-	35,640,745	75,331	27.084677
48	13106.73949	0	193523.15	262.45581					79,026,872	5,006,394	-	73,920,227	100,251	19.066004
49	9571.23132	0	99454.337	88.2882					169,959,278	14,908,460	-	154,913,297	137,521	7.8551525
50	80.248716	0	762.50922	17.359006					1,339,746	124,998	-	1,187,709	27,039	0.5686836
51	574.959924	0	13564.982	97.670459					5,438,355	219,618	-	5,181,429	37,307	3.4097879
52	3004.628552	0	61631.958	324.25945					9,945,016	459,986	-	9,435,389	49,642	11.657073
53	8730.779628	0	215666.65	664.30946					25,045,820	971,598	-	24,000,295	73,927	27.679396
54	31248.78753	0	337030.51	632.64967					56,477,641	4,783,954	-	51,596,833	96,854	33.941252
55	44811.67244	0	309581.42	341.26324					135,498,226	17,116,758	-	118,251,115	130,353	22.862942
56	34305.95309	0	134967.12	109.24693					263,835,391	53,436,064	-	210,229,161	170,167	8.6017985
57	2315.383272	0	9855.1102	50.864896					19,036,384	3,606,516	-	15,350,639	79,229	1.7858257
58	16677.74909	0	110545.02	288.29997					48,705,525	6,370,416	-	42,224,987	110,122	10.990573
59	124680.6996	0	568861.7	903.22066					106,314,394	19,087,676	-	87,088,442	138,276	42.780354
60	488086.8289	0	1509826.8	1520.2021					222,505,433	54,316,362	-	168,019,897	169,175	91.236475
61	800919.4686	0	1836520	1312.3991					403,973,041	122,614,738	-	281,157,385	200,918	97.514791
62	767161.6821	0	1185927.4	645.57388					746,269,916	293,033,492	-	452,989,833	246,590	48.689983
63	362822.0294	0	435276.55	200.22444					1,243,456,084	565,143,348	-	678,000,860	311,876	13.243613
64	28.24158	0	1138.8464	14.167277					1,839,961	43,990	-	1,773,904	22,067	0.5061207
65	654.489528	0	19143.389	84.906871					7,594,647	249,996	-	7,312,219	32,432	3.2316592
66	2352.95704	0	76638.78	284.25971					12,136,558	360,220	-	11,732,820	43,518	11.489788
67	6749.8339	0	217239.78	543.34388					24,986,975	751,150	-	24,175,359	60,466	23.983904
68	12813.3149	0	334312.1	514.92514					53,221,118	1,961,622	-	51,180,665	78,831	29.713611
69	16463.93179	0	248026.84	276.13554					101,133,274	6,288,744	-	94,739,054	105,476	19.807709
70	10848.60331	0	137108.87	94.090069					230,609,905	16,898,136	-	213,565,211	146,558	8.012603
71	7.673184	0	395.05828	8.8627458					641,112	11,952	-	615,356	13,805	0.3613433
72	315.945476	0	5979.6769	58.37852					2,427,044	120,682	-	2,284,063	22,299	2.2695704
73	3038.242224	0	48225.521	194.83401					7,877,924	465,132	-	7,382,964	29,828	7.889023
74	4589.887052	0	116002.49	384.10954					13,462,774	510,782	-	12,909,247	42,745	17.17629
75	6773.697064	0	218890.16	396.3645					34,608,118	1,037,002	-	33,510,435	60,680	22.669633
76	3537.980908	0	161356.03	214.00124					63,066,469	1,351,406	-	61,633,320	81,742	15.527227
77	1539.752256	0	80276.054	73.039801					127,552,719	2,398,368	-	125,040,582	113,769	6.6760103
78	115.950336	0	4031.4269	26.051718					6,500,668	180,608	-	6,279,481	40,579	0.8472474
79	252.930216	0	50530.717	142.63403					19,452,361	96,612	-	19,301,267	54,482	4.919955
80	2542.71164	0	216274.69	485.55028					33,573,630	389,270	-	33,110,026	74,334	18.200308
81	5769.802768	0	626549.21	877.45181					70,464,774	642,088	-	69,725,040	97,647	39.390041
82	8121.49688	0	910545.05	805.24798					140,764,206	1,243,340	-	139,397,588	123,277	46.442977
83	4583.599636	0	627970.55	415.12317					241,775,886	1,750,802	-	239,866,519	158,565	29.153053
84	2123.873388	0	268811.72	131.30437					422,222,576	3,308,214	-	418,709,838	204,524	9.7910778
85	123.836664	0	1285.225	22.279454					2,229,503	192,892	-	2,001,908	34,703	0.7471789
86	962.61242	0	17902.994	135.31332					7,257,800	367,690	-	6,838,424	51,686	4.5643783
87	5578.78524	0	111464.73	446.0335					17,986,765	854,070	-	17,064,410	68,284	16.673061
88	12224.28482	0	330619.69	819.37942					38,244,308	1,360,370	-	36,792,754	91,184	36.206661
89	12286.33927	0	537978.47	782.63883					84,361,213	1,880,946	-	82,360,451	119,816	44.961846
90	10070.27314	0	397317.01	405.01871					155,764,821	3,846,552	-	151,763,563	154,705	28.917512

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						
91	91	2016	642.58	0	102048.93	0	296562.34	15770.83	16600	3137.48	0	197150.6	0.000642	1987 Hourly	2016	4.76	400	6848.103576	0	205553.3	126.57069					331,040,455	10,666,828	-	320,176,477	197,151	10.124873
92	92	2016	74.22	0	41922.37	0	296984.41	2219.61	16600	193.19	0	62851.48	0.000642	1988 Hourly	2016	-4.76	400	790.977384	0	5199.5469	40.35065					9,393,886	1,232,052	-	8,098,983	62,851	1.4249896
93	93	2016	146.83	0	56352.9	0	296981.81	3203.23	16600	376.76	0	91126.4	0.002618	1988 Hourly	2016	-3.05	400	6381.055604	0	55584.116	238.56892					23,760,023	2,437,378	-	21,231,519	91,126	8.3860561
94	94	2016	181.01	0	73429.41	0	296980.72	4776.08	16600	601.29	0	119601.48	0.006532	1988 Hourly	2016	-1.53	400	19627.13151	0	288403.28	781.23687					47,276,737	3,004,766	-	44,152,370	119,601	31.197355
95	95	2016	435.02	0	91016.13	0	296983.78	7735.97	16600	1181.32	0	146521.06	0.008986	1988 Hourly	2016	0	400	64890.88935	0	966167.3	1316.6382					114,887,028	7,221,332	-	107,519,175	146,521	69.515426
96	96	2016	858.9	0	111847.19	0	296983.59	12658.12	16600	1903.72	0	183481.98	0.006532	1988 Hourly	2016	1.53	400	93131.55768	0	1390830.9	1198.5043					227,366,955	14,257,740	-	212,925,733	183,482	82.68284
97	97	2016	2326.83	0	135170.91	0	296982.91	17181.9	16600	2985.3	0	224401.2	0.002618	1988 Hourly	2016	3.05	400	101121.2396	0	1056430.3	587.48234					442,375,497	38,625,378	-	403,525,718	224,401	44.982214
98	98	2016	7040.09	0	170705.05	0	296984.59	20348.33	16600	4540.01	0	281099.68	0.000642	1988 Hourly	2016	4.76	400	75027.64715	0	497551.69	180.46599					892,149,228	116,865,494	-	775,002,634	281,100	13.063628
99	99	2016	5.88	0	13255.06	0	295300.84	786.69	16600	87.54	0	21008.1	0.000642	1989 Hourly	2016	-4.76	400	62.664336	0	744.94339	13.4872					1,278,964	97,608	-	1,160,348	21,008	0.505055
100	100	2016	14.62	0	18684.62	0	295304.16	1153.59	16600	195.25	0	32181.18	0.002618	1989 Hourly	2016	-3.05	400	635.367656	0	9550.9144	84.250329					3,923,045	242,692	-	3,648,172	32,181	3.0200986
101	101	2016	39.11	0	25213.41	0	295302.44	1722.47	16600	367.02	0	47373.06	0.006532	1989 Hourly	2016	-1.53	400	4240.744232	0	60445.99	309.44083					9,950,425	649,226	-	9,253,826	47,373	11.251174
102	102	2016	30.34	0	34708.13	0	295303.84	2761.21	16600	570.57	0	67469.64	0.008986	1989 Hourly	2016	0	400	4525.744984	0	177953.51	606.28219					20,374,531	503,644	-	19,803,418	67,470	24.812233
103	103	2016	93.6	0	45365.11	0	295302.22	4903.85	16600	1171.8	0	87602.66	0.006532	1989 Hourly	2016	1.53	400	10149.16032	0	347233.52	572.22058					54,800,199	1,553,760	-	53,158,836	87,603	32.031948
104	104	2016	103.95	0	57406.62	0	295303.94	8282.01	16600	1718.19	0	120048.49	0.002618	1989 Hourly	2016	3.05	400	4517.54226	0	258227.69	314.28695					100,481,099	1,725,570	-	98,635,480	120,048	21.682302
105	105	2016	286.17	0	75113.83	0	295301.22	13707.45	16600	2814.62	0	163706.47	0.000642	1989 Hourly	2016	4.76	400	3049.770924	0	135729.64	105.09955					216,331,017	4,750,422	-	211,416,888	163,706	8.8001829
106	106	2016	14.28	0	15802.09	0	295302.88	853.8	16600	125.67	0	22858	0.000642	1990 Hourly	2016	-4.76	400	152.184816	0	1274.9148	14.674836					2,245,755	237,048	-	1,985,849	22,858	0.5481396
107	107	2016	36.56	0	20260.14	0	295301.53	1244.06	16600	297.91	0	31522.32	0.002618	1990 Hourly	2016	-3.05	400	1588.853728	0	15801.458	82.525434					6,674,117	606,896	-	6,035,698	31,522	3.2569491
108	108	2016	87.67	0	27161.88	0	295307.09	1970.73	16600	641.12	0	42290.26	0.006532	1990 Hourly	2016	-1.53	400	9506.163304	0	113748.41	276.23998					18,911,637	1,455,322	-	17,414,025	42,290	12.872808
109	109	2016	143.91	0	34468.9	0	295304.62	3243.4	16600	1111.96	0	55605.78	0.008986	1990 Hourly	2016	0	400	21466.70932	0	344415.75	499.67354					40,772,550	2,388,906	-	38,328,038	55,606	29.145192
110	110	2016	348.56	0	41734.84	0	295300.5	5384.71	16600	1725.64	0	69155.14	0.006532	1990 Hourly	2016	1.53	400	37794.77907	0	470430.13	451.72137					77,874,560	5,786,096	-	72,019,309	69,155	35.172926
111	111	2016	1114.62	0	52038.65	0	295300.84	8977.23	16600	2814.16	0	92417.38	0.002618	1990 Hourly	2016	3.05	400	48440.04766	0	383393.24	241.9487					165,040,197	18,502,692	-	146,445,087	92,417	23.502388
112	112	2016	2859.7	0	62521.96	0	295302.69	13701	16600	3968.5	0	117761.8	0.000642	1990 Hourly	2016	4.76	400	30476.39484	0	159292.01	75.603076					295,707,180	47,471,020	-	248,118,398	117,762	8.796042
113	113	2016	14.21	0	29112.92	0	296218.81	1525.62	16600	218.13	0	48725.86	0.000642	1991 Hourly	2016	-4.76	400	151.438812	0	4076.9576	31.282002					6,635,013	235,886	-	6,350,401	48,726	0.979448
114	114	2016	23.78	0	38026.89	0	296216.56	2177.68	16600	395.94	0	65122.38	0.002618	1991 Hourly	2016	-3.05	400	1033.450264	0	39417.568	170.49039					15,516,237	394,748	-	15,056,367	65,122	5.7011662
115	115	2016	39.11	0	49090.01	0	296215.94	3259.92	16600	679.88	0	83108.32	0.006532	1991 Hourly	2016	-1.53	400	4240.744232	0	218007.56	542.86355					34,107,650	649,226	-	33,375,316	83,108	21.293797
116	116	2016	98.3	0	65027.03	0	296215.34	5200.64	16600	1279.16	0	110761.39	0.008986	1991 Hourly	2016	0	400	14663.17508	0	747455.26	995.30185					84,922,517	1,631,780	-	83,179,976	110,761	46.732951
117	117	2016	143.71	0	81044.33	0	296217.28	8387.81	16600	1925.41	0	140709.76	0.006532	1991 Hourly	2016	1.53	400	15582.64775	0	1019276.6	919.11615					158,569,859	2,385,586	-	156,043,563	140,710	54.789175
118	118	2016	316.01	0	95363.26	0	296218.19	12417.33	16600	2633.99	0	166128.8	0.002618	1991 Hourly	2016	3.05	400	13733.41539	0	657604.62	434.9252					256,597,768	5,245,766	-	251,185,873	166,129	32.50857
119	119	2016	1054.99	0	122702.05	0	296214.59	16013.86	16600	4003.52	0	214599.32	0.000642	1991 Hourly	2016	4.76	400	11243.23943	0	315376.15	137.77276					508,967,545	17,512,834	-	491,240,111	214,599	10.280898
120	120	2016	8.49	0	9855.35	0	295303.09	583.11	16600	96.3	0	13939.58	0.000642	1992 Hourly	2016	-4.76	400	90.479628	0	609.30307	8.9492104					1,103,944	140,934	-	949,070	13,940	0.3743566
121	121	2016	14.89	0	12889.31	0	295306.19	796.92	16600	221.6	0	19122.88	0.002618	1992 Hourly	2016	-3.05	400	647.101532	0	7477.7177	50.0637					3,122,568	247,174	-	2,856,271	19,123	2.0863366
122	122	2016	18.84	0	17484.06	0	295304.56	1178.85	16600	332.83	0	28212.58	0.006532	1992 Hourly	2016	-1.53	400	2042.843808	0	38011.143	184.28457					6,160,176	312,744	-	5,819,220	28,213	7.7002482
123	123	2016	31.67	0	22586.37	0	295303.47	1745.09	16600	505.51	0	40018.02	0.008986	1992 Hourly	2016	0	400	4724.137892	0	102598.88	359.60193					11,983,376	525,722	-	11,417,636	40,018	15.681379
124	124	2016	91.06	0	29725.14	0	295302.41	3147.58	16600	1040.72	0	53967.98	0.006532	1992 Hourly	2016	1.53	400	9873.745072	0	202071	352.51885					32,501,112	1,511,596	-	30,935,548	53,968	20.559993
125	125	2016	375.03	0	36554.55	0	295305	5239.23	16600	1589.95	0	70385.18	0.002618	1992 Hourly	2016	3.05	400	16298.35376	0	152157.92	184.2684					64,415,790	6,225,498	-	58,119,907	70,385	13.716304
126	126	2016	1033.2	0	45654.47	0	295302.5	9293.65	16600	2514.39	0	98462.87	0.000642	1992 Hourly	2016	4.76	400	11011.01904	0	73697.198	63.213163					132,042,726	17,151,120	-	114,793,143	98,463	5.9665233
127	127	2016	17	0	22093.32	0	296391.94	1261.67	16600	141.5	0	37057.68	0.000642	1993 Hourly	2016	-4.76	400	181.1724	0	2007.0235	23.791031					3,445,462	282,200	-	3,126,205	37,058	0.8099921
128	128	2016	40.1	0	31594	0	296389.09	1879.07	16600	239.03	0	53924.24	0.002618	1993 Hourly	2016	-3.05	400	1742.69788	0	19770.91	141.17366					8,271,498	665,660	-	7,551,914	53,924	4.9194053
129	129	2016	66.86	0	43067.86	0	296391.62	2885.47	16600	419.83	0	75395.24	0.006532	1993 Hourly	2016	-1.53	400	7249.710032	0	118106.27	492.48171					19,266,451	1,109,876	-	18,081,180	75,395	18.84789
130	130	2016	120.15	0	55415.29	0	296389.81	4462.88	16600	775.38	0	99870.13	0.008986	1993 Hourly	2016	0	400	17922.48714	0	386109.62	897.43299					45,062,268	1,994,490	-	42,967,908	99,870	40.10344
131	131	2016	181.63	0	72832.91	0	296387.91	7817.3	16600	1378.33	0	129032.66	0.006532	1993 Hourly	2016	1.53	400	19694.35886	0	655733.01	842.84134					103,531,876	3,015,058	-	100,387,785	129,033	51.062604
132	132	2016	465.02	0	85485.2	0	296390.62	12082.72	16600	2096.57	0	163111.98	0.002618	1993 Hourly	2016	3.05	400	20209.21118	0	469212.9	427.02716					187,108,150	7,719,332	-	179,225,706	163,112	31.632561
133	133	2016	1477.57	0	109349.07	0	296389.25	16785.64	16600	3397.96	0	211801.26	0.000642	1993 Hourly	2016	4.76	400	15746.759	0	238543.94	135.97641					396,303,229	24,527,662	-	371,563,766	211,801	10.776381
134	134	2016	20.35	0	17046.29	0	295753.44	998.81	16600	109.54	0	28422.54	0.000642	1994 Hourly	2016	-4.76	400	216.87402	0	1198.7749	18.247271					2,233,483	337,810	-	1,867,251	28,423	0.641236
135	135	2016	21.04	0	24230.81	0	295759.53	1439.14	16600	205.19	0	41584.05	0.002618	1994 Hourly	2016	-3.05	400	914.373152	0	13016.486	108.86704					5,362,768	349,264	-	4,971,920	41,584	3.7676685
136	136	2016	49.69	0	32625.28	0	295750.97	2145.15	16600	382.39	0	56838.98	0.006532	1994 Hourly	2016	-1.53	400	5387.946328	0	81490.494	371.27222					13,357,274	824,854	-	12,475,581	56,839	14.01212
137	137	2016	100.07	0	45209.53	0	295755	3593.47	16600	634.82	0	82837.22	0.008986	1994 Hourly	2016	0	400	14927.20173	0	257897.43	744.37526					30,443,913	1,661,162	-	28,699,914	82,837	32.290921
138	138	2016	270.79	0	57222.71	0	295756.94	6169.4	16600	1205.72	0	110360.77	0.006532	1994 Hourly	2016	1.53	400	29362.08465	0	450672.5	720.87655					73,600,041	4,495,114	-	68,994,566	110,361	40.298521
139	139	2016	815.9	0	70717.65	0	295756.06	10287.64	16600	1869.15	0	143910.7	0.002618	1994 Hourly	2016	3.05	400	35458.03492	0	346052.2	376.75821					145,869,746	13,543,940	-	132,181,895	143,911	26.933042
140	140	2016	2532.43	0	89083.66	0	295755.47	15305.63	16600	2920.52	0	191960.33	0.000642	1994 Hourly	2016	4.76	400	26988.613	0	167029.53	123.23853					302,400,909	42,038,338	-	260,170,611	191,960	9.8262145
141	141	2016	46.78	0	31878.44	0	295485.34	1668.04	16600	184.34	0	65451.58	0.000642	1995 Hourly	2016	-4.76	400	498.543816	0	3772.6948	42.019914					6,718,471	776,548	-	5,876,472	65,452	1.0708817
142	142	2016	100.92	0	45002.92	0	295483.91	2568.47	16600	363.9	0	89501.02	0.002618	1995 Hourly	2016	-3.05	400	4385.862096	0	42873.841	234.31367					18,141,336	1,675,272	-	16,376,563	89,501	6.7242545
143	143	2016	140.29	0	56656.59	0	295481.44	3808.74	16600	613.72	0	116349.72	0.006532	1995 Hourly	2016	-1.53	400	15211.81305	0	227126.02	759.99637					37,216,446	2,328,814	-	34,771,282	116,350	24.87869
144	144	2016	330.57	0	76018.14	0	295482.75	6347.25	16600	1140.04	0	151679.04	0.008986	1995 Hourly	2016	0	400	49310.33353	0	778760.19	1362.9879					92,302,861	5,487,462	-	86,663,720	151,679	57.036389
145	145	2016	698.26	0	91365.34	0	295482.44	10135.12	16600	1845.32	0	188093.9	0.006532	1995 Hourly	2016	1.53	400	75713.16971	0	1101284	1228.6294					180,377,499	11,591,116	-	168,598,289	188,094	66.202604
146	146	2016	1604.38	0	110718.78	0	295484.03	14579.27	16600	2769.19	0	226498.95	0.002618	1995 Hourly	2016	3.05	400	69724.42954	0	802682.3	592.97425					333,460,545	26,632,708	-	306,601,338	226,499	38.168529
147	147	2016	4849.16	0	142204.54	0	295481.59	17908.1	16600	4131.08	0	289435.49	0.000642	1995 Hourly	2016	4.76	400	51678.46795	0	377148.25	185.81758					668,243,823	80,496,056	-	587,458,331	289,435	11.497
148	148	2016	4.29	0	14601.05	0	295393.72	849.68	16600	99.53	0	23059.88	0.000642	1996 Hourly	2016	-4.76	400	45.719388	0	932.98169	14.804443					1,547,516	71,214	-	1,453,243	23,060	0.5454946
149	149	2016	11.14	0	19476.15	0	295391.88	1193.78	16600	191.52	0	33085.88	0.002618	1996 Hourly	2016	-3.05	400	484.131032	0	9765.3291	86.618834					3,948,082	184,924	-	3,730,072	33,086	3.125316
150	150	2016	14.25	0	27593.01	0	295390.94	1822.28	16600	318.33	0	49368.18	0.006532	1996 Hourly	2016	-1.53	400	1545.1446	0	57375.017	322.47295					9,069,601	236,550	-	8,783,683	49,368	11.903133
151	151	2016	19.91	0	35543.58	0	295389.16	2774.15	16600	629.53	0	65358.35	0.008986	1996 Hourly	2016	0	400	2969.926916	0	201068.49	587.31013					22,771,614	330,506	-	22,375,750	65,358	24.928512
152	152	2016	61.87	0	46875.18	0	295389.97	4901.73	16600	1039.95	0	91043.23	0.006532	1996 Hourly	2016	1.53	400	6708.638344	0	318420.91	594.69438					49,865,929	1,027,042	-	48,747,843	91,043	32.0181
153	153	2016	74.72	0	58909.83	0	295388.22	8106.22	16600	1681.07	0	117714.12	0.002618	1996 Hourly	2016	3.05	400	3247.241536	0	259264.59	308.17557					100,389,614	1,240,352	-	99,031,548	117,714	21.222084
154	154	2016	141.63	0	78406.99	0	295388.06	13390.31	16600	2810.69	0	157284.84	0.000642	1996 Hourly	2016	4.76	400	1509.379236	0	141482.51	100.97687					222,886,086	2,351,058	-	220,377,743	157,285	8.596579
155	155	2016	22.46	0	21390.46	0	296243.53	1178.32	16600	193.5	0	36574.22	0.000642	1997 Hourly	2016	-4.76	400	239.360712	0	2657.2727	23.480649					4,548,464	372,836	-	4,139,054	36,574	0.7564814
156	156	2016	36.23	0	30458.97	0	296242.19	1761.42	16600	315.34	0	52646.08	0.002618	1997 Hourly	2016	-3.05	400	1574.512324	0	25145.711	137.82744					10,258,996	601,418	-	9,604,932	52,646	4.6113976
157	157	2016	55.93	0	39530.2	0	296243.31	2625.37	16600	538.11	0	71390.88	0.006532	1997 Hourly	2016	-1.53	400	6064.557016	0	138946.06	466.32523					22,271,425	928,438	-	21,271,596	71,391	17.148917
158	158	2016	65.32	0	49371.83	0	296245.03	3987.13	16600	918.66	0	90358.75	0.008986	1997 Hourly	2016	0	400	9743.627632	0	407568.35	811.96373					46,530,596	1,084,312	-	45,355,925	90,359	35.82835
159	159	2016	133.52	0	61943.76	0	296240.03	6751.45	16600	1464.95	0	118514.16	0.006532	1997 Hourly	2016	1.53	400	14477.73382	0	592743.15	774.13449					93,079,457	2,216,432	-	90,744,511	118,514	44.100471
160	160	2016	357.05	0	79382.09	0	296245.62	11011.83	16600	2354.25	0	155526.83	0.002618	1997 Hourly	2016	3.05	400	15516.96454	0	489265.68	407.16924					192,967,842	5,927,030	-	186,885,285	155,527	28.828971
161	161	2016	1019.39	0	100324.22	0	296242.72	15413.92	16600	3610.63	0	202106.28	0.000642	1997 Hourly	2016	4.76	400	10863.84311	0	232554	129.75223					379,357,619	16,921,874	-	362,233,638	202,106	9.8957366
162	162	2016	2.11	0	14604.59	0	296283.31	874.74	16600	96.89	0	28239.23	0.000642	1998 Hourly	2016	-4.76	400	22.486692	0	908.45486	18.129586					1,478,304	35,026	-	1,415,039	28,239	0.5615831
163	163	2016	3.95	0	21007.63	0	296279.28	1285.09	16600	201.67	0	39653	0.002618	1998 Hourly	2016	-3.05	400	171.66226	0	11091.442	103.81155					4,341,832	65,570	-	4,236,609	39,653	3.3643656
164	164	2016	11.62	0	28001.59	0	296280.16	1908.57	16600	364.62	0	56613.46	0.006532	1998 Hourly	2016	-1.53	400	1259.970544	0	66691.326	369.79912					10,459,445	192,892	-	10,209,940	56,613	12.466779
165	165	2016	14.71	0	35277.1	0	296280.56	2845.44	16600	564.41	0	72456.22	0.008986	1998 Hourly	2016	0	400	2194.255396	0	178917.98	651.09159					20,227,390	244,186	-	19,910,748	72,456	25.569124
166	166	2016	35.15	0	45114.53	0	296281.56	4906.26	16600	1016.97	0	96363.68	0.006532	1998 Hourly	2016	1.53	400	3811.35668	0	299688.97	629.44756					46,559,977	583,490	-	45,880,124	96,364	32.04769
167	167	2016	72.8	0	59804.83	0	296281.72	8773.86	16600	1703.46	0	128898.12	0.002618	1998 Hourly	2016	3.05	400	3163.80064	0	266709.11	337.45528					103,212,514	1,208,480	-	101,875,136	128,898	22.969965
168	168	2016	180.13	0	76649.69	0	296281.88	14175.86	16600	2847.46	0	166383.45	0.000642	1998 Hourly	2016	4.76	400	1919.681436	0	140120.95	106.81817					221,413,468	2,990,158	-	218,256,926	166,383	9.1009021
169	169	2016	120.13	0	38342.73	0	295301.84	2091.94	16600	251.51	0	58900.21	0.000642	1999 Hourly	2016	-4.76	400	1280.249436	0	6191.1784	37.813935					11,696,638	1,994,158	-	9,643,580	58,900	1.3430255
170	170	2016	223.79	0	49814.97	0	295300.88	3164.16	16600	473.01	0	78990.92	0.002618	1999 Hourly	2016	-3.05	400	9725.644852	0	61687.879	206.79823					27,356,884	3,714,914	-	23,562,979	78,991	8.2837709
171	171	2016	622.94	0	61457.15	0	295300.56	4811.43	16600	899.24	0	99617.7	0.006532	1999 Hourly	2016	-1.53	400	67546.13173	0	360989.2	650.70282					65,705,149	10,340,804	-	55,264,728	99,618	31.428261
172	172	2016	1854.87	0	79070.57	0	295301	7998.74	16600	1504.52	0	133884.27	0.008986	1999 Hourly	2016	0	400	276686.5062	0	1069003.8	1203.0841					149,887,980	30,790,842	-	118,963,254	133,884	71.876678
173	173	2016	3837.31	0	90904.66	0	295302.53	12044.8	16600	2261.53	0	159288.52	0.006532	1999 Hourly	2016	1.53	400	416084.1281	0	1342872.2	1040.4726					269,442,250	63,699,346	-	205,583,616	159,289	78.676634
174	174	2016	9199.52	0	107168.43	0	295301.44	16635.56	16600	3204.2	0	198272.7	0.002618	1999 Hourly	2016	3.05	400	399800.0998	0	898992.62	519.07793					496,299,388	152,712,032	-	343,389,083	198,273	43.551896
175	175	2016	19268.07	0	122051.5	0	295302.94	19389.96	16600	4087.13	0	238348.83	0.000642	1999 Hourly	2016	4.76	400	205343.6756	0	320255.5	153.01995					818,928,658	319,849,962	-	498,840,347	238,349	12.448354
176	176	2016	11.39	0	12713.91	0	295650.09	763.9	16600	100.31	0	20743.68	0.000642	2000 Hourly	2016	-4.76	400	121.385508	0	818.76334	13.317443					1,485,150	189,074	-	1,275,332	20,744	0.4904238
177	177	2016	19.75	0	18353.4	0	295649.75	1115.06	16600	178.96	0	32320.75	0.002618	2000 Hourly	2016	-3.05	400	858.3113	0	8598.885	84.615724					3,644,695	327,850	-	3,284,524	32,321	2.9192271
178	178	2016	14.82	0	23469.18	0	295652.41	1535.27	16600	459.99	0	43592.18	0.006532	2000 Hourly	2016	-1.53	400	1606.950384	0	70516.782	284.74412					11,085,192	246,012	-	10,795,588	43,592	10.028384
179	179	2016	23.57	0	32440.56	0	295648.44	2445.92	16600	587.61	0	61234	0.008986	2000 Hourly	2016	0	400	3515.880332	0	171294.7	550.24872					19,514,893	391,262	-	19,062,397	61,234	21.979037
180	180	2016	62.93	0	42262.53	0	295652.44	4289.34	16600	1136.9	0	82601.97	0.006532	2000 Hourly	2016	1.53	400	6823.575416	0	313851.3	539.55607					49,175,510	1,044,638	-	48,048,270	82,602	28.017969

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations
181	181	2016	205.57	0	54847.11	0	295654.41	7296.68	16600	1782.41	0	109291.82	0.002618	2000 Hourly	2016	3.05	400
182	182	2016	519.31	0	69765.64	0	295655.28	12038.59	16600	2709.21	0	145024.84	0.000642	2000 Hourly	2016	4.76	400
183	183	2016	6.55	0	16019.45	0	296597.41	943.03	16600	81.38	0	24516.58	0.000642	2001 Hourly	2016	-4.76	400
184	184	2016	9.04	0	21431.07	0	296600.09	1293.99	16600	151.61	0	33411	0.002618	2001 Hourly	2016	-3.05	400
185	185	2016	10.69	0	29808.95	0	296598.09	1914.99	16600	286.35	0	49988.88	0.006532	2001 Hourly	2016	-1.53	400
186	186	2016	34.67	0	38174.86	0	296599.59	2977.42	16600	518.24	0	67488.26	0.008986	2001 Hourly	2016	0	400
187	187	2016	47.88	0	48061.96	0	296598.84	5067.63	16600	837.14	0	93042.7	0.006532	2001 Hourly	2016	1.53	400
188	188	2016	81.45	0	60499.55	0	296596.84	8646.2	16600	1566.12	0	122468.58	0.002618	2001 Hourly	2016	3.05	400
189	189	2016	215.44	0	75717.18	0	296600.44	14079.5	16600	2576.29	0	162497.96	0.000642	2001 Hourly	2016	4.76	400
190	190	2016	30.15	0	28298.89	0	295302.41	1601.02	16600	113.43	0	47805.46	0.000642	2002 Hourly	2016	-4.76	400
191	191	2016	43.99	0	40286.47	0	295300.69	2336.22	16600	242.63	0	70600.59	0.002618	2002 Hourly	2016	-3.05	400
192	192	2016	94.85	0	52941.71	0	295303.84	3386.34	16600	475.81	0	94535.51	0.006532	2002 Hourly	2016	-1.53	400
193	193	2016	121.75	0	65997.12	0	295301.41	5283.21	16600	748.23	0	120510.48	0.008986	2002 Hourly	2016	0	400
194	194	2016	252.82	0	85990.89	0	295302.59	9269.33	16600	1325.28	0	158404.6	0.006532	2002 Hourly	2016	1.53	400
195	195	2016	538.01	0	104301.36	0	295298.09	14297.03	16600	2271.8	0	195050.57	0.002618	2002 Hourly	2016	3.05	400
196	196	2016	1289.96	0	135296.93	0	295303.22	18145.86	16600	3428.69	0	252438.29	0.000642	2002 Hourly	2016	4.76	400
197	197	2016	3.68	0	13685.86	0	295949.62	794.54	16600	95.5	0	24424.32	0.000642	2003 Hourly	2016	-4.76	400
198	198	2016	11.12	0	19997.37	0	295949.38	1227.81	16600	275.85	0	35171.57	0.002618	2003 Hourly	2016	-3.05	400
199	199	2016	27.75	0	26446.58	0	295949	1750.9	16600	328.25	0	51211.68	0.006532	2003 Hourly	2016	-1.53	400
200	200	2016	77.49	0	37132.73	0	295948.44	2919.8	16600	687.98	0	72497.87	0.008986	2003 Hourly	2016	0	400
201	201	2016	113.09	0	45841.79	0	295952.03	4897.86	16600	1093.59	0	95668.19	0.006532	2003 Hourly	2016	1.53	400
202	202	2016	328.97	0	55837.71	0	295950.41	8003.99	16600	1662.79	0	121370.48	0.002618	2003 Hourly	2016	3.05	400
203	203	2016	1128.23	0	71629.79	0	295951	12946.94	16600	2740.52	0	165669.67	0.000642	2003 Hourly	2016	4.76	400
204	204	2016	3.16	0	8260.93	0	295298.84	509.26	16600	84.15	0	13511.76	0.000642	2004 Hourly	2016	-4.76	400
205	205	2016	5	0	11263.34	0	295301.16	721.7	16600	163.93	0	19723.03	0.002618	2004 Hourly	2016	-3.05	400
206	206	2016	10.79	0	14805.19	0	295301.56	1018.88	16600	245.8	0	26790.44	0.006532	2004 Hourly	2016	-1.53	400
207	207	2016	13.98	0	19447.49	0	295300.81	1576.75	16600	430.12	0	38208.1	0.008986	2004 Hourly	2016	0	400
208	208	2016	86.59	0	25826.88	0	295302.09	2715.36	16600	830.8	0	50997.09	0.006532	2004 Hourly	2016	1.53	400
209	209	2016	231.27	0	33856.31	0	295303.09	4763.72	16600	1412.81	0	70549.29	0.002618	2004 Hourly	2016	3.05	400
210	210	2016	603.5	0	43375.47	0	295298.41	8634.46	16600	2211.05	0	98941.51	0.000642	2004 Hourly	2016	4.76	400
211	211	2016	36.2	0	28969.21	0	296224.16	1595.45	16600	180.38	0	45515.12	0.000642	2005 Hourly	2016	-4.76	400
212	212	2016	70.74	0	37629.6	0	296225.94	2277.35	16600	282.5	0	62545.99	0.002618	2005 Hourly	2016	-3.05	400
213	213	2016	117.47	0	49403.28	0	296222.81	3408.64	16600	530.3	0	82671.58	0.006532	2005 Hourly	2016	-1.53	400
214	214	2016	239.83	0	63797.29	0	296223.88	5365.22	16600	880.87	0	109392.18	0.008986	2005 Hourly	2016	0	400
215	215	2016	489.79	0	80294.08	0	296225.97	8895.89	16600	1459.41	0	144803.13	0.006532	2005 Hourly	2016	1.53	400
216	216	2016	1070.29	0	98579.78	0	296224.62	13683.78	16600	2282.79	0	182609.52	0.002618	2005 Hourly	2016	3.05	400
217	217	2016	2860.08	0	122941.01	0	296229.88	17737.61	16600	3502.7	0	236137.64	0.000642	2005 Hourly	2016	4.76	400
218	218	2016	19.9	0	23653.99	0	295578.34	1303.68	16600	124.01	0	39248.74	0.000642	2006 Hourly	2016	-4.76	400
219	219	2016	41.19	0	32156.87	0	295581.88	1905.78	16600	286.54	0	55573.32	0.002618	2006 Hourly	2016	-3.05	400
220	220	2016	74.99	0	43027.94	0	295578.91	2930.03	16600	536.73	0	75214.29	0.006532	2006 Hourly	2016	-1.53	400
221	221	2016	131.03	0	56064.85	0	295584.69	4741.11	16600	988.25	0	98504.32	0.008986	2006 Hourly	2016	0	400
222	222	2016	174.7	0	69302.89	0	295581.22	7942.96	16600	1507.42	0	127788.22	0.006532	2006 Hourly	2016	1.53	400
223	223	2016	599.46	0	87238.93	0	295579.44	12731.47	16600	2616.75	0	161048.61	0.002618	2006 Hourly	2016	3.05	400
224	224	2016	1496.46	0	106497.02	0	295582.5	16829.8	16600	3741.29	0	201661.67	0.000642	2006 Hourly	2016	4.76	400
225	225	2016	89.87	0	51581.31	0	296275.09	2580.71	16600	191.72	0	78170.8	0.000642	2007 Hourly	2016	-4.76	400
226	226	2016	178.73	0	67802.63	0	296277.94	3799.65	16600	418.9	0	107777.46	0.002618	2007 Hourly	2016	-3.05	400
227	227	2016	344.93	0	84340.6	0	296272.75	5586.62	16600	808.3	0	135906.16	0.006532	2007 Hourly	2016	-1.53	400
228	228	2016	883.11	0	104735.48	0	296274.5	8885.83	16600	1276.27	0	170599.29	0.008986	2007 Hourly	2016	0	400
229	229	2016	2530.96	0	126087.54	0	296277.06	14270.66	16600	2220.36	0	211437.22	0.006532	2007 Hourly	2016	1.53	400
230	230	2016	5701.59	0	149981.09	0	296275.19	17811.53	16600	3099.94	0	255112.56	0.002618	2007 Hourly	2016	3.05	400
231	231	2016	16620.62	0	177220.4	0	296277.22	20259.95	16600	4362.41	0	312603.09	0.000642	2007 Hourly	2016	4.76	400
232	232	2016	4.82	0	17533.41	0	295693.59	1027.66	16600	165.38	0	27849.56	0.000642	2008 Hourly	2016	-4.76	400
233	233	2016	21.88	0	24680.34	0	295695.97	1492.23	16600	188.83	0	40948.81	0.002618	2008 Hourly	2016	-3.05	400
234	234	2016	27.18	0	33926.8	0	295693.22	2238.37	16600	381.46	0	60870.41	0.006532	2008 Hourly	2016	-1.53	400
235	235	2016	38.3	0	44271.43	0	295695.03	3428.47	16600	614.67	0	78645.04	0.008986	2008 Hourly	2016	0	400
236	236	2016	58.72	0	56470.33	0	295697.31	5842.27	16600	969.28	0	105604.39	0.006532	2008 Hourly	2016	1.53	400
237	237	2016	122.95	0	74356.16	0	295695.03	9840.05	16600	1781.49	0	138902.38	0.002618	2008 Hourly	2016	3.05	400
238	238	2016	242.97	0	92293.67	0	295694.94	14755.05	16600	2706.86	0	183479.94	0.000642	2008 Hourly	2016	4.76	400
239	239	2016	2.63	0	10020.53	0	296140.22	628.67	16600	82.53	0	15985.9	0.000642	2009 Hourly	2016	-4.76	400
240	240	2016	6.37	0	13047.67	0	296141.34	835.5	16600	137.5	0	21801.14	0.002618	2009 Hourly	2016	-3.05	400
241	241	2016	18.97	0	19204.6	0	296140	1322.61	16600	330.71	0	33524.82	0.006532	2009 Hourly	2016	-1.53	400
242	242	2016	69.01	0	26462.76	0	296141.72	2153.45	16600	554.21	0	47027.13	0.008986	2009 Hourly	2016	0	400
243	243	2016	183.04	0	33304.97	0	296140.97	3542.77	16600	914.75	0	62752.27	0.006532	2009 Hourly	2016	1.53	400
244	244	2016	494.66	0	42812.28	0	296143.66	6281.42	16600	1461.88	0	84982.88	0.002618	2009 Hourly	2016	3.05	400
245	245	2016	1526.42	0	55759.32	0	296142.97	11095.35	16600	2378.74	0	120540.32	0.000642	2009 Hourly	2016	4.76	400
246	229	2016	6529.74	0	125537.69	0	0	14922.91	16600	1237.95	0	200466.95	0.006532	2007 Load	2016	1.53	600
247	230	2016	13915.31	0	138575.35	0	0	23709.2	16600	1727.52	0	240303.02	0.002618	2007 Load	2016	3.05	600
248	231	2016	25864.2	0	154370.5	0	0	36904.71	16600	2650.69	0	295930.32	0.000642	2007 Load	2016	4.76	600
249	232	2016	1.03	0	20965.36	0	0	66.42	16600	51.465	0	29341.07	0.000642	2008 Load	2016	-4.76	600
250	233	2016	6.55	0	28352.92	0	0	235.98	16600	105.685	0	41777	0.002618	2008 Load	2016	-3.05	600
251	234	2016	6.44	0	38745.82	0	0	745.62	16600	211.675	0	60455.47	0.006532	2008 Load	2016	-1.53	600
252	235	2016	29.04	0	48431.22	0	0	1673.66	16600	326.295	0	79613.92	0.008986	2008 Load	2016	0	600
253	236	2016	69.6	0	62015.89	0	0	4228.61	16600	541.155	0	106263.23	0.006532	2008 Load	2016	1.53	600
254	237	2016	118.67	0	75696.61	0	0	8676.7	16600	905.71	0	139113.99	0.002618	2008 Load	2016	3.05	600
255	238	2016	292.52	0	92342.32	0	0	17649.78	16600	1593.66	0	180801.07	0.000642	2008 Load	2016	4.76	600
256	239	2016	7.17	0	12755.76	0	0	38.63	16600	45.06	0	16386.09	0.000642	2009 Load	2016	-4.76	600
257	240	2016	12.83	0	17686.46	0	0	144.65	16600	117.44	0	24651.44	0.002618	2009 Load	2016	-3.05	600
258	241	2016	27.58	0	22117.13	0	0	373.95	16600	171.43	0	33907.04	0.006532	2009 Load	2016	-1.53	600
259	242	2016	65.14	0	30229.34	0	0	978.14	16600	276.235	0	48940.83	0.008986	2009 Load	2016	0	600
260	243	2016	301.62	0	38368.22	0	0	2528.44	16600	563.87	0	64992.15	0.006532	2009 Load	2016	1.53	600
261	244	2016	1264.87	0	45732.33	0	0	5168.05	16600	788.675	0	86320.43	0.002618	2009 Load	2016	3.05	600
262	245	2016	2376.98	0	56650.53	0	0	10842.1	16600	1292.06	0	117521.91	0.000642	2009 Load	2016	4.76	600

No	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						
181	8933.825516	0	255935.78	286.12598					101,281,791	3,412,462	-	97,760,037	109,292	19.102708
182	5534.390532	0	121344.27	93.105947					197,775,340	8,620,546	-	189,009,770	145,025	7.7287748
183	69.80466	0	836.95154	15.739644					1,436,909	108,730	-	1,303,663	24,517	0.6054253
184	392.867552	0	8506.3127	87.469998					3,432,640	150,064	-	3,249,165	33,411	3.3876658
185	1159.129528	0	55755.799	326.52736					8,763,236	177,454	-	8,535,793	49,989	12.508715
186	5171.640692	0	177776.68	606.4495					20,426,750	575,522	-	19,783,739	67,488	26.755096
187	5191.685856	0	262812.34	607.75492					41,122,440	794,808	-	40,234,589	93,043	33.101759
188	3539.71926	0	248054.34	320.62274					96,224,094	1,352,070	-	94,749,555	122,469	22.635752
189	2295.987168	0	125234.56	104.32369					198,808,216	3,576,304	-	195,069,414	162,498	9.039039
190	321.31458	0	2060.7835	30.691105					3,758,239	500,490	-	3,209,943	47,805	1.0278548
191	1911.752612	0	25590.181	184.83234					10,575,541	730,234	-	9,774,706	70,601	6.116224
192	10284.69932	0	164542.35	617.50595					26,859,241	1,574,510	-	25,190,195	94,536	22.119573
193	18161.1553	0	443737.89	1082.9072					51,522,586	2,021,050	-	49,381,025	120,510	47.474925
194	27413.57598	0	744399.83	1034.6988					118,317,223	4,196,812	-	113,962,007	158,405	60.547264
195	23381.26899	0	620339.89	510.64239					246,077,846	8,930,966	-	236,951,830	195,051	37.429625
196	13747.36171	0	297818.17	162.06538					485,557,005	21,413,336	-	463,891,231	252,438	11.649642
197	39.218496	0	839.09376	15.680413					1,392,512	61,088	-	1,307,000	24,424	0.5100947
198	483.261856	0	14441.607	92.07917					5,736,038	184,592	-	5,516,275	35,172	3.2144066
199	3008.9658	0	56704.879	334.51469					9,192,952	460,650	-	8,681,090	51,212	11.436879
200	11558.99732	0	229561.53	651.46586					26,905,407	1,286,334	-	25,546,576	72,498	26.237323
201	12262.48441	0	327463.03	624.90462					52,105,085	1,877,294	-	50,132,123	95,668	31.992822
202	14296.64144	0	243071.84	317.74792					98,428,658	5,460,902	-	92,846,386	121,370	20.954446
203	12023.77276	0	126026.44	106.35993					215,197,160	18,728,618	-	196,302,872	165,670	8.3119355
204	33.676752	0	446.29096	8.6745499					761,125	52,456	-	695,157	13,512	0.3269449
205	217.294	0	4833.8734	51.634893					1,949,122	83,000	-	1,846,399	19,723	1.8894106
206	1169.972648	0	23770.704	174.99515					3,845,020	179,114	-	3,639,116	26,790	6.6553242
207	2085.363048	0	75165.683	343.33799					8,635,030	232,068	-	8,364,754	38,208	14.168676
208	9389.057608	0	140156.94	333.11299					22,945,363	1,437,394	-	21,456,972	50,997	17.736732
209	10050.71668	0	125225.57	184.69804					51,742,165	3,839,082	-	47,832,533	70,549	12.471419
210	6431.6202	0	61571.224	63.520449					106,022,374	10,018,100	-	95,905,333	98,942	5.5433233
211	385.79064	0	3354.7492	29.220707					5,871,901	600,920	-	5,225,466	45,515	1.0242789
212	3074.275512	0	27830.288	163.7454					11,867,192	1,174,284	-	10,630,362	62,546	5.9621023
213	12737.41306	0	171128.99	540.01076					28,231,233	1,950,002	-	26,198,559	82,672	22.265236
214	35774.86551	0	504987.31	982.99813					60,287,689	3,981,178	-	56,197,119	109,392	48.211867
215	53108.51745	0	765432.71	945.85405					125,457,300	8,130,514	-	117,181,983	144,803	58.107953
216	46513.51905	0	589146.7	478.07172					242,986,360	17,766,814	-	225,036,936	182,610	35.824136
217	30480.44458	0	276461.56	151.60036					478,338,941	47,477,328	-	430,625,476	236,138	11.387546
218	212.07828	0	1883.1987	25.197691					3,302,920	330,340	-	2,933,331	39,249	0.8369626
219	1790.067972	0	24122.853	145.49095					9,953,557	683,754	-	9,214,230	55,573	4.989332
220	8131.255688	0	150852.53	491.29974					24,414,435	1,244,834	-	23,094,386	75,214	19.138956
221	19545.43063	0	497879.11	885.15982					57,679,690	2,175,098	-	55,406,088	98,504	42.603614
222	18942.93064	0	682388.65	834.71265					107,496,371	2,900,020	-	104,468,562	127,788	51.883415
223	26051.81225	0	597643.51	421.62526					238,394,555	9,951,036	-	228,282,470	161,049	33.330988
224	15948.07351	0	255796.06	129.46679					423,479,134	24,841,236	-	398,436,236	201,662	10.804732
225	957.762564	0	6348.8463	50.185654					11,459,182	1,491,842	-	9,889,169	78,171	1.6568158
226	7767.391324	0	74357.802	282.16139					31,477,217	2,966,918	-	28,402,522	107,777	9.9474837
227	37401.17382	0	445302.82	887.73904					74,034,251	5,725,838	-	68,172,507	135,906	36.491802
228	131731.3992	0	1201165.4	1533.0052					148,500,976	14,659,626	-	133,670,751	170,599	79.848068
229	274435.03	0	1828697	1381.1079					322,185,104	42,013,936	-	279,959,730	211,437	93.215951
230	247784.2595	0	1217193	667.88468					559,833,887	94,646,394	-	464,932,380	255,113	46.630586
231	177129.2715	0	496335.36	200.69118					1,049,322,940	275,902,292	-	773,108,045	312,603	13.006888
232	51.367704	0	1861.5916	17.879418					3,007,537	80,012	-	2,899,675	27,850	0.6597577
233	950.878544	0	12200.897	107.20398					5,064,545	363,208	-	4,660,389	40,949	3.9066581
234	2947.160016	0	84535.296	397.60552					13,453,776	451,188	-	12,941,717	60,870	14.621033
235	5713.11908	0	244529.91	706.70433					27,926,745	635,780	-	27,212,320	78,645	30.808231
236	6367.080064	0	357532.69	689.80788					55,815,918	974,752	-	54,735,561	105,604	38.161708
237	5343.25946	0	346792.73	363.64643					134,644,628	2,040,970	-	132,464,755	138,902	25.761251
238	2589.379884	0	160388.32	117.79412					254,042,826	4,033,302	-	249,826,044	183,480	9.4727421
239	28.028436	0	530.93037	10.262948					886,638	43,658	-	826,994	15,986	0.4036061
240	276.832556	0	4696.835	57.075385					1,921,598	105,742	-	1,794,055	21,801	2.187339
241	2056.939864	0	41485.733	218.98412					6,699,580	314,902	-	6,351,153	33,525	8.6392885
242	10294.05608	0	131788.01	422.58579					15,858,519	1,145,566	-	14,665,926	47,027	19.350902
243	19847.24685	0	199002.09	409.89783					33,566,938	3,038,464	-	30,465,721	62,752	23.141374
244	21497.33001	0	163851.24	222.48518					70,882,755	8,211,356	-	62,586,416	84,983	16.444758
245	16267.36322	0	85152.906	77.386885					158,096,037	25,338,572	-	132,636,925	120,540	7.1232147

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations
1	1	2016	0.26	0	16146.59	0	0	28.85	16600	33.245	0	73118.79	0.001909	1975 Load	2016	-5.35	600
2	2	2016	7.24	0	26202.52	0	0	208.45	16600	94.72	0	126751.97	0.005927	1975 Load	2016	-3.15	600
13	3	2016	9.09	0	34568.9	0	0	667.12	16600	162.71	0	183523.84	0.009822	1975 Load	2016	-1.21	600
14	4	2016	23.74	0	46837.69	0	0	2237.27	16600	394.43	0	262105.96	0.00763	1975 Load	2016	0.73	600
15	5	2016	58.37	0	59367.22	0	0	5426.84	16600	707.305	0	360121.7	0.002261	1975 Load	2016	2.47	600
16	6	2016	145.93	0	70586.01	0	0	10096.92	16600	1040.54	0	453186.38	0.000791	1975 Load	2016	3.81	600
17	7	2016	259.6	0	81206.94	0	0	19659.33	16600	1786.685	0	564491.62	0.000231	1975 Load	2016	5.37	600
18	8	2016	0.61	0	12044.96	0	0	22.83	16600	33.185	0	84638.95	0.001909	1976 Load	2016	-5.35	600
19	9	2016	5.88	0	19753.62	0	0	197.51	16600	145.075	0	138545.42	0.005927	1976 Load	2016	-3.15	600
20	10	2016	24.03	0	27881.92	0	0	661.13	16600	244.34	0	196038.52	0.009822	1976 Load	2016	-1.21	600
31	11	2016	68.48	0	37673.04	0	0	1792.24	16600	455.185	0	286099.34	0.00763	1976 Load	2016	0.73	600
32	12	2016	129.88	0	50158.62	0	0	4377.77	16600	878.18	0	384582.5	0.002261	1976 Load	2016	2.47	600
33	13	2016	333.47	0	60221.46	0	0	7774.51	16600	1274.275	0	482430.54	0.000791	1976 Load	2016	3.81	600
34	14	2016	1453.08	0	66748.59	0	0	14468.07	16600	2014.315	0	591258.24	0.000231	1976 Load	2016	5.37	600
35	15	2016	32.38	0	26496.56	0	0	106.03	16600	65.895	0	151585.28	0.001909	1977 Load	2016	-5.35	600
36	16	2016	137.2	0	42084.66	0	0	433.24	16600	121.495	0	249625.89	0.005927	1977 Load	2016	-3.15	600
37	17	2016	311.41	0	58571.63	0	0	1657.71	16600	290.93	0	373499.52	0.009822	1977 Load	2016	-1.21	600
38	18	2016	978.98	0	79738.56	0	0	4676.88	16600	530.255	0	544164.42	0.00763	1977 Load	2016	0.73	600
39	19	2016	5388.12	0	101432.37	0	0	11485.3	16600	871.08	0	750838.85	0.002261	1977 Load	2016	2.47	600
40	20	2016	13089.47	0	106970.97	0	0	18609.39	16600	1229.195	0	909682.15	0.000791	1977 Load	2016	3.81	600
41	21	2016	25372.77	0	121228.55	0	0	32942.79	16600	2113.52	0	1152194.9	0.000231	1977 Load	2016	5.37	600
42	22	2016	7.21	0	15460.55	0	0	50.51	16600	42.67	0	91088.47	0.001909	1978 Load	2016	-5.35	600
43	23	2016	37.39	0	23122.69	0	0	226.06	16600	116.49	0	149251.89	0.005927	1978 Load	2016	-3.15	600
44	24	2016	95.4	0	33006.26	0	0	787.02	16600	204.585	0	216677.19	0.009822	1978 Load	2016	-1.21	600
45	25	2016	248.38	0	47044.97	0	0	2542.68	16600	478.025	0	327444.3	0.00763	1978 Load	2016	0.73	600
46	26	2016	1049.67	0	60908.14	0	0	6130.77	16600	821.515	0	448792.5	0.002261	1978 Load	2016	2.47	600
47	27	2016	3985.12	0	68928.02	0	0	10748.19	16600	1182.96	0	560612.93	0.000791	1978 Load	2016	3.81	600
48	28	2016	8375.64	0	82058.98	0	0	20513.91	16600	1944.125	0	741983.18	0.000231	1978 Load	2016	5.37	600
49	29	2016	0.83	0	11899.96	0	0	26.44	16600	35.395	0	78298.56	0.001909	1979 Load	2016	-5.35	600
50	30	2016	4.89	0	18305.75	0	0	178.25	16600	120.11	0	123671.84	0.005927	1979 Load	2016	-3.15	600
51	31	2016	30.57	0	27564.09	0	0	623.16	16600	271.335	0	196541.78	0.009822	1979 Load	2016	-1.21	600
52	32	2016	80.82	0	38210.37	0	0	1797.79	16600	445.35	0	280760.96	0.00763	1979 Load	2016	0.73	600
53	33	2016	224.65	0	49470.59	0	0	4312.03	16600	751.065	0	393689.71	0.002261	1979 Load	2016	2.47	600
54	34	2016	553.8	0	59605.77	0	0	7957.96	16600	1116.165	0	499221.51	0.000791	1979 Load	2016	3.81	600
55	35	2016	1896.4	0	71023.64	0	0	16157.49	16600	1802.16	0	654441.07	0.000231	1979 Load	2016	5.37	600
56	36	2016	17.59	0	29062.02	0	0	156.12	16600	76.765	0	160321.59	0.001909	1980 Load	2016	-5.35	600
57	37	2016	64.17	0	42167.01	0	0	591.63	16600	136.135	0	244054.78	0.005927	1980 Load	2016	-3.15	600
58	38	2016	167.42	0	57302.18	0	0	1938.3	16600	283.59	0	341598.54	0.009822	1980 Load	2016	-1.21	600
59	39	2016	439.84	0	74746.75	0	0	5243.4	16600	646.24	0	469625.79	0.00763	1980 Load	2016	0.73	600
60	40	2016	1547.9	0	93098.39	0	0	11363.01	16600	1135.1	0	619562.25	0.002261	1980 Load	2016	2.47	600
61	41	2016	4592.98	0	106574.78	0	0	18552.37	16600	1671.215	0	734223.4	0.000791	1980 Load	2016	3.81	600
62	42	2016	8503.46	0	118331.32	0	0	30450.16	16600	2558.44	0	889268.62	0.000231	1980 Load	2016	5.37	600
63	43	2016	2.1	0	11216.92	0	0	23.14	16600	37.795	0	54468.9	0.001909	1981 Load	2016	-5.35	600
64	44	2016	14.99	0	17038.04	0	0	117.72	16600	90.325	0	87906.06	0.005927	1981 Load	2016	-3.15	600
65	45	2016	44.16	0	25426.69	0	0	460.69	16600	171.575	0	139494.92	0.009822	1981 Load	2016	-1.21	600
66	46	2016	96.8	0	35135.56	0	0	1558.52	16600	343.225	0	214331.8	0.00763	1981 Load	2016	0.73	600
67	47	2016	365.85	0	45773.61	0	0	4151.3	16600	631.485	0	296550.31	0.002261	1981 Load	2016	2.47	600
70	48	2016	1358.59	0	55315.55	0	0	7924.4	16600	990.96	0	383252.29	0.000791	1981 Load	2016	3.81	600
71	49	2016	3665.24	0	62428.46	0	0	15549.92	16600	1672.955	0	492642.61	0.000231	1981 Load	2016	5.37	600
72	50	2016	3.75	0	12194.73	0	0	26.39	16600	33.185	0	62235.72	0.001909	1982 Load	2016	-5.35	600
73	51	2016	41.4	0	20519.63	0	0	174.91	16600	87.135	0	114057.62	0.005927	1982 Load	2016	-3.15	600
74	52	2016	139.3	0	30114.13	0	0	591.72	16600	188.04	0	168339.19	0.009822	1982 Load	2016	-1.21	600
75	53	2016	257.14	0	40817.56	0	0	1845.64	16600	377.68	0	251636.26	0.00763	1982 Load	2016	0.73	600
76	54	2016	1082.38	0	53460.96	0	0	4771.31	16600	734.755	0	347689.37	0.002261	1982 Load	2016	2.47	600
77	55	2016	4679.1	0	61805.25	0	0	9509.19	16600	986.415	0	454506.11	0.000791	1982 Load	2016	3.81	600
78	56	2016	12592.83	0	67291.73	0	0	17788.38	16600	1643.1	0	607561.72	0.000231	1982 Load	2016	5.37	600
79	57	2016	284.8	0	50877.21	0	0	661.09	16600	138.765	0	237854.27	0.001909	1983 Load	2016	-5.35	600
80	58	2016	513.05	0	69906.96	0	0	1913.8	16600	289.075	0	342153.31	0.005927	1983 Load	2016	-3.15	600
81	59	2016	1815.33	0	88494.64	0	0	5273.04	16600	598.465	0	459401.57	0.009822	1983 Load	2016	-1.21	600
82	60	2016	13004.12	0	100512.75	0	0	11700.96	16600	873.735	0	590172.71	0.00763	1983 Load	2016	0.73	600
83	61	2016	25411.19	0	112554.3	0	0	18888.57	16600	1228.005	0	736933.82	0.002261	1983 Load	2016	2.47	600
84	62	2016	32752.54	0	128562.5	0	0	26521.31	16600	1720.87	0	886802.78	0.000791	1983 Load	2016	3.81	600
85	63	2016	41545.33	0	140090.42	0	0	38097.1	16600	2575.015	0	1021192.8	0.000231	1983 Load	2016	5.37	600
86	64	2016	3	0	12234.13	0	0	24.36	16600	34.435	0	61944.93	0.001909	1984 Load	2016	-5.35	600
87	65	2016	13.55	0	18750.09	0	0	146.69	16600	98.18	0	103197.18	0.005927	1984 Load	2016	-3.15	600
88	66	2016	45.66	0	27169.59	0	0	555.42	16600	196.33	0	154652.93	0.009822	1984 Load	2016	-1.21	600
91	67	2016	89.52	0	38156.03	0	0	1782.04	16600	398.31	0	234041.9	0.00763	1984 Load	2016	0.73	600
92	68	2016	338.13	0	48261.13	0	0	3962.75	16600	735.015	0	310805.86	0.002261	1984 Load	2016	2.47	600
93	69	2016	1525.96	0	58437.1	0	0	7728.18	16600	1028.535	0	395250.62	0.000791	1984 Load	2016	3.81	600
94	70	2016	3316.29	0	66455.58	0	0	15106.73	16600	1713.885	0	506170.6	0.000231	1984 Load	2016	5.37	600
95	71	2016	1.38	0	8229.03	0	0	11.92	16600	30.64	0	41036.55	0.001909	1985 Load	2016	-5.35	600
96	72	2016	0.38	0	12861.92	0	0	78.35	16600	89.52	0	68625.41	0.005927	1985 Load	2016	-3.15	600
97	73	2016	4.76	0	20078.29	0	0	339.5	16600	178.595	0	112567.96	0.009822	1985 Load	2016	-1.21	600
98	74	2016	28.51	0	28140.31	0	0	1124.43	16600	369.27	0	169540.56	0.00763	1985 Load	2016	0.73	600
99	75	2016	55.73	0	39018.89	0	0	3042.84	16600	721.975	0	251162.66	0.002261	1985 Load	2016	2.47	600
100	76	2016	131.9	0	47288.09	0	0	5826.27	16600	1041.18	0	324109.34	0.000791	1985 Load	2016	3.81	600
101	77	2016	261.07	0	55585.28	0	0	11767.08	16600	1616.565	0	419874.77	0.000231	1985 Load	2016	5.37	600
102	78	2016	3.76	0	22862.04	0	0	119.49	16600	137.29	0	122974.38	0.001909	1986 Load	2016	-5.35	600
103	79	2016	6.15	0	30990.66	0	0	387.19	16600	149.675	0	177159.94	0.005927	1986 Load	2016	-3.15	600
104	80	2016	22.9	0	43643.77	0	0	1216.01	16600	415.25	0	260120.84	0.009822	1986 Load	2016	-1.21	600
105	81	2016	64.94	0	58298.07	0	0	3222.78	16600	718.105	0	373132.34	0.00763	1986 Load	2016	0.73	600
106	82	2016	157.88	0	74841.92	0	0	7159.56	16600	1233.7	0	489672.68	0.002261	1986 Load	2016	2.47	600
107	83	2016	270.97	0	87044.19	0	0	12094.5	16600	1637.635	0	601622.13	0.000791	1986 Load	2016	3.81	600
108	84	2016	424.46	0	102951.44	0	0	22335.16	16600	2646.345	0	744094.23	0.000231	1986 Load	2016	5.37	600
109	85	2016	2.86	0	19342.15	0	0	45.86	16600	37.9	0	102335.75	0.001909	1987 Load	2016	-5.35	600
110	86	2016	12.79	0	29697.18	0	0	278.12	16600	113.44	0	162037.78	0.005927	1987 Load	2016	-3.15	600
111	87	2016	35.24	0	41069.62	0	0	967.04	16600	225.965	0	228578.81	0.009822	1987 Load	2016	-1.21	600
112	88	2016	102.68	0	55765.59	0	0	2998.85	16600	432.7	0	327282.64	0.00763	1987 Load	2016	0.73	600
113	89	2016	251.07	0	72772.22	0	0	7302.39	16600	802.13	0	455975.47	0.002261	1987 Load	2016	2.47	600
114	90	2016	529.59	0	84621.86	0	0	12607.17	16600	1236.36	0	543037.65	0.000791	1987 Load	2016	3.81	600
115	91	2016	1387.31	0	100086.71	0	0	23841.65	16600	2112.585	0	699216.39	0.000231	1987 Load	2016	5.37	600
116	92	2016	22.03	0	39584.62	0	0	198.71	16600	53.965	0	190120.81	0.001909	1988 Load	2016	-5.35	600
117	93	2016	150.36	0	58627.13	0	0	1070.1	16600	196.22	0	288332.43	0.005927	1988 Load	2016	-3.15	600

No	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						
1	8.239244	0	1024.7386	139.58377	**267**	**24,287**	**-**	**10,472**	614,228	4,316	-	536,793	73,119	0.0550747
2	712.330568	0	14710.237	751.25893					2,728,839	120,184	-	2,481,903	126,752	1.2354832
13	1482.080868	0	55245.86	1802.5712					5,959,124	150,894	-	5,624,706	183,524	6.5524526
14	3006.86092	0	140958.07	1999.8685					19,130,380	394,084	-	18,474,190	262,106	17.07037
15	2190.777862	0	94941.044	814.23516					43,319,795	968,942	-	41,990,732	360,122	12.270085
16	1916.148458	0	58097.025	358.47043					76,323,191	2,422,438	-	73,447,567	453,186	7.9866637
17	995.46216	0	33516.072	130.39756					149,965,073	4,309,360	-	145,091,222	564,492	4.5413052
18	19.330534	0	763.0502	161.57576					494,477	10,126	-	399,712	84,639	0.0435825
19	578.522616	0	16985.338	821.1587					3,101,910	97,608	-	2,865,756	138,545	1.1706418
20	3917.976156	0	66914.028	1925.4903					7,407,605	398,898	-	6,812,668	196,039	6.4936189
31	8673.53984	0	130840.79	2182.938					18,571,070	1,136,768	-	17,148,203	286,099	13.674791
32	4874.734088	0	99593.199	869.54103					46,588,887	2,156,008	-	44,048,297	384,583	9.898138
33	4378.661182	0	60700.312	381.60256					82,756,733	5,535,602	-	76,738,701	482,431	6.1496374
34	5571.980568	0	31058.57	136.58065					159,165,072	24,121,128	-	134,452,686	591,258	3.3421242
35	1026.102772	0	3333.0965	289.3763					2,435,084	537,508	-	1,745,991	151,585	0.2024113
36	13498.86104	0	30305.2	1479.5327					7,640,222	2,277,520	-	5,113,076	249,626	2.5678135
37	50773.90573	0	167369.28	3668.5123					22,583,150	5,169,406	-	17,040,244	373,500	16.282028
38	123995.6488	0	322609.91	4151.9745					59,077,003	16,251,068	-	42,281,770	544,164	35.684594
39	202230.1527	0	199772.26	1697.6466					178,549,340	89,442,792	-	88,355,709	750,839	25.968263
40	171872.5948	0	104007.15	719.55858					349,683,066	217,285,202	-	131,488,181	909,682	14.720027
41	97294.42384	0	59186.581	266.15702					678,559,142	421,187,982	-	256,218,965	1,152,195	7.6097845
42	228.480574	0	1259.3705	173.88789					870,476	119,686	-	659,702	91,088	0.0964236
43	3678.734798	0	15964.743	884.61595					3,463,488	620,674	-	2,693,562	149,252	1.3398576
44	15554.51208	0	66323.897	2128.2034					8,552,903	1,583,640	-	6,752,586	216,677	7.7301104
45	31459.31404	0	171588.57	2498.4					26,939,224	4,123,108	-	22,488,672	327,444	19.400648
46	39396.84424	0	113133.55	1014.7198					67,910,265	17,424,522	-	50,036,951	448,793	13.861671
47	52327.01667	0	64497.421	443.44483					148,252,695	66,152,992	-	81,539,091	560,613	8.5018183
48	32117.22914	0	36852.103	171.39811					299,310,522	139,035,624	-	159,532,914	741,983	4.7387132
49	26.302202	0	804.06905	149.47195					513,276	13,778	-	421,199	78,299	0.050474
50	481.118298	0	13031.716	733.003					2,403,549	81,174	-	2,198,704	123,672	1.0564878
51	4984.291764	0	73459.743	1930.4334					8,183,106	507,462	-	7,479,102	196,542	6.1206775
52	10236.49956	0	129839.62	2142.2061					18,639,361	1,341,612	-	17,016,988	280,761	13.717138
53	8431.69859	0	84008.876	890.13243					41,278,508	3,729,190	-	37,155,629	393,690	9.7494998
54	7271.72628	0	52625.131	394.88421					76,222,176	9,193,080	-	66,529,874	499,222	6.2947464
55	7271.93544	0	29567.067	151.17589					160,130,644	31,480,240	-	127,995,963	654,441	3.7323802
56	557.416546	0	4258.8758	306.05392					2,683,262	291,994	-	2,230,946	160,322	0.2980331
57	6313.570794	0	34023.386	1446.5127					7,049,683	1,065,222	-	5,740,406	244,055	3.506591
58	27297.02738	0	159610.69	3355.1809					19,371,096	2,779,172	-	16,250,325	341,599	19.037983
59	55709.25472	0	368562.11	3583.2448					56,075,310	7,301,344	-	48,304,340	469,626	40.007142
60	58096.71154	0	238933.4	1400.8302					131,990,685	25,695,140	-	105,675,982	619,562	25.691766
61	60308.58319	0	140884.51	580.77071					255,087,062	76,243,468	-	178,109,371	734,223	14.674925
62	32607.36772	0	69933.768	205.42105					444,790,287	141,157,436	-	302,743,582	889,269	7.033987
63	66.54774	0	809.30813	103.98113					513,272	34,860	-	423,943	54,469	0.0441743
64	1474.839118	0	9121.4216	521.01922					1,875,701	248,834	-	1,538,961	87,906	0.6977264
65	7200.076032	0	42849.303	1370.1191					5,235,135	733,056	-	4,362,584	139,495	4.5248972
66	12260.4944	0	92013.242	1635.3516					13,880,614	1,606,880	-	12,059,403	214,332	11.891508
67	13731.30171	0	65354.992	670.50025					35,275,008	6,073,110	-	28,905,348	296,550	9.3860893
70	17839.10185	0	43359.058	303.15256					77,751,344	22,552,594	-	54,815,497	383,252	6.2682004
71	14054.7293	0	24125.641	113.80044					165,775,631	60,842,984	-	104,440,004	492,643	3.5920315
72	118.83525	0	772.53816	118.80799					529,168	62,250	-	404,682	62,236	0.0503785
73	4073.27148	0	10597.345	676.01951					2,589,276	687,240	-	1,787,978	114,058	1.0366916
74	22712.19636	0	55618.656	1653.4275					8,143,380	2,312,380	-	5,662,661	168,339	5.8118738
75	32568.83812	0	117623.9	1919.9847					19,936,136	4,268,524	-	15,415,976	251,636	14.082233
76	40624.53559	0	88813.68	786.12567					57,595,905	17,967,508	-	39,280,708	347,689	10.787932
77	61439.39046	0	48223.81	359.51433					139,093,192	77,673,060	-	60,965,626	454,506	7.5217693
78	48288.46592	0	25540.987	140.34676					320,215,581	209,040,978	-	110,567,042	607,562	4.1091158
79	9025.14112	0	13477.494	454.0638					12,025,510	4,727,680	-	7,059,976	237,854	1.2620208
80	50478.06601	0	119774.92	2027.9427					29,067,138	8,516,630	-	20,208,354	342,153	11.343093
81	295980.8429	0	520182.4	4512.2422					83,554,824	30,134,478	-	52,960,945	459,402	51.791799
82	1647075.831	0	670078.1	4503.0178					304,280,072	215,868,392	-	87,821,508	590,173	89.278325
83	953748.0298	0	312509.19	1666.2074					560,779,931	421,825,754	-	138,217,243	736,934	42.707057
84	430060.5017	0	175000.33	701.461					765,818,316	543,692,164	-	221,239,349	886,803	20.978356
85	159309.7224	0	83329.769	235.89555					1,051,408,604	689,652,478	-	360,734,933	1,021,193	8.8004301
86	95.0682	0	804.22785	118.25287					533,027	49,800	-	421,282	61,945	0.0465032
87	1333.16011	0	10910.918	611.64969					2,169,011	224,930	-	1,840,884	103,197	0.8694316
88	7444.643832	0	52392.567	1519.0011					6,246,815	757,956	-	5,334,206	154,653	5.4553352
91	11338.42416	0	115960.19	1785.7397					16,918,002	1,486,032	-	15,197,928	234,042	13.596965
92	12690.89804	0	80203.672	702.73205					41,396,418	5,612,958	-	35,472,654	310,806	8.9597778
93	20036.77038	0	47542.741	312.64324					85,830,789	25,330,936	-	60,104,603	395,251	6.1129904
94	12716.64563	0	26310.258	116.92541					169,453,806	55,050,414	-	113,897,222	506,171	3.4896546
95	43.731372	0	481.33045	78.338774					316,082	22,908	-	252,137	41,037	0.0227553
96	37.387516	0	6824.3423	406.74281					1,226,332	6,308	-	1,151,399	68,625	0.4643805
97	776.095152	0	35220.535	1105.6425					3,777,466	79,016	-	3,585,882	112,568	3.334569
98	3611.01958	0	79286.17	1293.5945					11,034,179	473,266	-	10,391,372	169,541	8.5794009
99	2091.691798	0	63693.869	567.87877					29,346,944	925,118	-	28,170,663	251,163	6.8798612
100	1731.92614	0	38945.212	256.37049					51,749,063	2,189,540	-	49,235,414	324,109	4.6085796
101	1001.099022	0	20757.017	96.991072					94,610,855	4,333,762	-	89,857,218	419,875	2.7181955
102	119.152144	0	5991.8346	234.75809					3,324,120	62,416	-	3,138,729	122,974	0.2281064
103	605.08743	0	27492.55	1050.027					4,917,777	102,090	-	4,638,527	177,160	2.2948751
104	3733.73508	0	178004.85	2554.9069					18,763,336	380,140	-	18,123,075	260,121	11.94365
105	8225.17052	0	319423.35	2846.9998					43,315,272	1,078,004	-	41,864,136	373,132	24.589811
106	5925.646888	0	208763.73	1107.1499					95,442,957	2,620,808	-	92,332,477	489,673	16.187765
107	3557.998682	0	112754.37	475.8831					147,646,336	4,498,102	-	142,546,612	601,622	9.5667495
108	1627.634316	0	62934.802	171.88577					280,235,159	7,046,036	-	272,445,028	744,094	5.159422
109	90.631684	0	1399.4258	195.35895					882,879	47,476	-	733,067	102,336	0.0875467
110	1258.385078	0	19967.163	960.39792					3,743,200	212,314	-	3,368,848	162,038	1.6484172
111	5745.712848	0	91151.074	2245.1011					10,093,859	584,984	-	9,280,297	228,579	9.4982669
112	13005.24344	0	184110.15	2497.1665					26,161,541	1,704,488	-	24,129,771	327,283	22.881226
113	9423.309882	0	131980.86	1030.9605					62,996,518	4,167,762	-	58,372,781	455,975	16.510704
114	6953.834454	0	82756.859	429.54278					113,957,314	8,791,194	-	104,623,083	543,038	9.9722715
115	5319.778926	0	48843.029	161.51899					235,170,245	23,029,346	-	211,441,682	699,216	5.5074212
116	698.117482	0	4077.9753	362.94063					2,692,003	365,698	-	2,136,184	190,121	0.3793374
117	14793.64975	0	68183.114	1708.9463					14,288,124	2,495,976	-	11,503,815	288,332	6.3424827

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**		
118	94	2016	344.02	0	78775.41	0	0	3257.22	16600	391.27	0	399768.37	0.009822	1988 Load	2016	-1.21	600	56090.8097	0	302738.15	3926.5249	36,932,955	5,710,732	-	30,822,455	399,768	31.992415
119	95	2016	841.07	0	99948.17	0	0	8229.24	16600	806.245	0	526461.61	0.00763	1988 Load	2016	0.73	600	106528.2441	0	614846.1	4016.9021	95,070,936	13,961,762	-	80,582,712	526,462	62.789101
120	96	2016	2402.68	0	122216.7	0	0	16229.62	16600	1467.745	0	667626.74	0.002261	1988 Load	2016	2.47	600	90178.82737	0	405584.85	1509.5041	219,935,065	39,884,488	-	179,382,950	667,627	36.695171
121	97	2016	7072.31	0	134575.93	0	0	24635.5	16600	1910.575	0	795032.51	0.000791	1988 Load	2016	3.81	600	92863.67369	0	203379.87	628.87072	375,312,786	117,400,346	-	257,117,407	795,033	19.486681
122	98	2016	17723.1	0	149048.1	0	0	38531.93	16600	2977.88	0	964650.18	0.000231	1988 Load	2016	5.37	600	67960.99926	0	102528.74	222.83419	739,015,466	294,203,460	-	443,847,356	964,650	8.9008758
123	99	2016	2.64	0	12659.65	0	0	17.63	16600	28.85	0	63978.17	0.001909	1989 Load	2016	-5.35	600	83.660016	0	697.22579	122.13433	473,033	43,824	-	365,231	63,978	0.0336557
124	100	2016	2.94	0	19950.94	0	0	143.5	16600	93.04	0	113799.36	0.005927	1989 Load	2016	-3.15	600	289.261308	0	11001.908	674.48881	2,018,839	48,804	-	1,856,235	113,799	0.8505245
125	101	2016	10.1	0	28135.72	0	0	566.57	16600	235.14	0	171422.52	0.009822	1989 Load	2016	-1.21	600	1646.75652	0	64980.714	1683.712	6,954,916	167,660	-	6,615,833	171,423	5.5648505
126	102	2016	73.25	0	40585.62	0	0	1955.22	16600	444.825	0	257228.86	0.00763	1989 Load	2016	0.73	600	9277.6985	0	137748.19	1962.6562	19,526,677	1,215,950	-	18,053,498	257,229	14.918329
129	103	2016	131.9	0	52921.67	0	0	4787.9	16600	719.72	0	360813.23	0.002261	1989 Load	2016	2.47	600	4950.54994	0	86118.741	815.79871	40,639,138	2,189,540	-	38,088,784	360,813	10.825442
130	104	2016	299.02	0	65771.56	0	0	9275.89	16600	1157.53	0	471859.23	0.000791	1989 Load	2016	3.81	600	3926.312012	0	60220.85	373.24065	81,568,145	4,963,732	-	76,132,554	471,859	7.337229
131	105	2016	648.45	0	75273.72	0	0	17668.22	16600	1865.72	0	584615.94	0.000231	1989 Load	2016	5.37	600	2486.54637	0	32441.567	135.04628	151,788,571	10,764,270	-	140,439,685	584,616	4.0813588
132	106	2016	14.39	0	16196.16	0	0	87.78	16600	55.795	0	75596.86	0.001909	1990 Load	2016	-5.35	600	456.010466	0	1725.096	144.31441	1,218,136	238,874	-	903,665	75,597	0.167572
133	107	2016	83.29	0	22170.85	0	0	441.93	16600	196.6	0	107362.8	0.005927	1990 Load	2016	-3.15	600	8194.753178	0	25834.543	636.33932	5,848,766	1,382,614	-	4,358,789	107,363	2.6193191
134	108	2016	176.75	0	30148.92	0	0	1246.76	16600	409.695	0	149466.92	0.009822	1990 Load	2016	-1.21	600	28818.2391	0	121319.99	1468.0641	15,435,379	2,934,050	-	12,351,862	149,467	12.245677
135	109	2016	317.87	0	39934.6	0	0	3097.22	16600	833.115	0	206720.6	0.00763	1990 Load	2016	0.73	600	40260.77846	0	253850.97	1577.2782	38,753,477	5,276,642	-	33,270,114	206,721	23.631789
138	110	2016	1218.24	0	49101.2	0	0	6231.67	16600	1357.01	0	273347.38	0.002261	1990 Load	2016	2.47	600	45723.71462	0	150652.28	618.03843	87,126,951	20,222,784	-	66,630,819	273,347	14.089806
139	111	2016	4304.91	0	53830.42	0	0	9538.29	16600	1669.24	0	326721.4	0.000791	1990 Load	2016	3.81	600	56526.05125	0	71076.009	258.43663	161,644,118	71,461,506	-	89,855,890	326,721	7.5447874
140	112	2016	9489.36	0	57940.42	0	0	15901.44	16600	2323.46	0	408919.79	0.000231	1990 Load	2016	5.37	600	36387.89986	0	31097.739	94.460471	292,554,544	157,523,376	-	134,622,248	408,920	3.6732326
141	113	2016	4.76	0	25922.54	0	0	130.11	16600	78.01	0	141765.03	0.001909	1991 Load	2016	-5.35	600	150.841544	0	3860.4129	270.62944	2,242,998	79,016	-	2,022,217	141,765	0.24838
142	114	2016	23.95	0	38823.08	0	0	547.66	16600	205.25	0	217822.84	0.005927	1991 Load	2016	-3.15	600	2356.39739	0	47228.927	1291.036	8,583,830	397,570	-	7,968,437	217,823	3.2459808
143	115	2016	58.93	0	53550.07	0	0	1675.25	16600	418.85	0	302281.59	0.009822	1991 Load	2016	-1.21	600	9608.253636	0	220302.03	2969.0098	23,709,966	978,238	-	22,429,447	302,282	16.454306
144	116	2016	160.5	0	71761.14	0	0	4348.44	16600	879.05	0	418447.63	0.00763	1991 Load	2016	0.73	600	20328.609	0	481312.84	3192.7554	66,164,378	2,664,300	-	63,081,630	418,448	33.178597
145	117	2016	314.7	0	88305.8	0	0	8980.76	16600	1259.785	0	533446.7	0.002261	1991 Load	2016	2.47	600	11811.50922	0	251527.93	1206.123	117,003,789	5,224,020	-	111,246,322	533,447	20.305498
146	118	2016	895.99	0	99882.28	0	0	14408.15	16600	1737.93	0	633111.46	0.000791	1991 Load	2016	3.81	600	11764.88629	0	137308.43	500.79116	189,094,956	14,873,434	-	173,588,411	633,111	11.396847
147	119	2016	2931.08	0	114393.85	0	0	25454.84	16600	2505.75	0	775896.2	0.000231	1991 Load	2016	5.37	600	11239.51937	0	66214.392	179.23202	336,074,214	48,655,928	-	286,642,390	775,896	5.880068
148	120	2016	2.76	0	9054.03	0	0	10.65	16600	30.9	0	41050	0.001909	1992 Load	2016	-5.35	600	87.462744	0	534.08003	78.36445	366,636	45,816	-	279,770	41,050	0.0203309
149	121	2016	15.31	0	14279.34	0	0	113.31	16600	112.105	0	69039.6	0.005927	1992 Load	2016	-3.15	600	1506.323342	0	9487.8551	409.19771	1,923,971	254,146	-	1,600,785	69,040	0.6715884
152	122	2016	35.33	0	20059.64	0	0	367.67	16600	184.705	0	102100.23	0.009822	1992 Load	2016	-1.21	600	5760.386916	0	36391.647	1002.8285	4,393,694	586,478	-	3,705,116	102,100	3.6112547
153	123	2016	75.59	0	25541.86	0	0	1027.07	16600	371.79	0	146649.72	0.00763	1992 Load	2016	0.73	600	9574.07822	0	72456.068	1118.9374	10,897,652	1,254,794	-	9,496,208	146,650	7.8365441
154	124	2016	276.29	0	33153.18	0	0	2661.61	16600	576.76	0	213510.06	0.002261	1992 Load	2016	2.47	600	10369.88205	0	43233.549	482.74625	23,921,352	4,586,414	-	19,121,428	213,510	6.0179002
155	125	2016	1186.4	0	37966.79	0	0	4834.95	16600	862.665	0	266752.82	0.000791	1992 Load	2016	3.81	600	15578.14384	0	25907.323	211.00148	52,713,614	19,694,240	-	32,752,621	266,753	3.8244455
156	126	2016	3632.65	0	43358.02	0	0	10018.14	16600	1571.77	0	354992.06	0.000231	1992 Load	2016	5.37	600	13929.75969	0	15742.381	82.003166	128,805,817	60,301,990	-	68,148,835	354,992	2.3141903
157	127	2016	7.71	0	22594.42	0	0	91.13	16600	78.145	0	116133.57	0.001909	1993 Load	2016	-5.35	600	244.325274	0	3370.6086	221.69899	2,009,761	127,986	-	1,765,641	116,134	0.1739672
158	128	2016	28.64	0	33327.37	0	0	378.28	16600	116.435	0	177190.32	0.005927	1993 Load	2016	-3.15	600	2817.838048	0	22999.559	1050.207	4,533,087	475,424	-	3,880,472	177,190	2.2420656
159	129	2016	92.69	0	46443.32	0	0	1292.79	16600	245.315	0	257990.48	0.009822	1993 Load	2016	-1.21	600	15112.65959	0	111904.43	2533.9825	13,189,888	1,538,654	-	11,393,243	257,990	12.697783
162	130	2016	224.16	0	62350.6	0	0	3830.81	16600	526.93	0	365417.56	0.00763	1993 Load	2016	0.73	600	28391.65728	0	250679.08	2788.136	36,940,875	3,721,056	-	32,854,402	365,418	29.22908
163	131	2016	408.18	0	77892	0	0	8451.94	16600	958.12	0	472087.52	0.002261	1993 Load	2016	2.47	600	15320.05667	0	168738.17	1067.3899	81,877,759	6,775,788	-	74,629,883	472,088	19.109836
164	132	2016	1063.62	0	91475.08	0	0	14367.26	16600	1477.485	0	586989.25	0.000791	1993 Load	2016	3.81	600	13965.96877	0	106906.07	464.3085	153,396,140	17,656,092	-	135,153,059	586,989	11.364503
165	133	2016	4211.75	0	103858.34	0	0	25668.71	16600	2238.995	0	739171.51	0.000231	1993 Load	2016	5.37	600	16150.37655	0	53716.348	170.74862	303,192,525	69,915,050	-	232,538,304	739,172	5.929472
166	134	2016	3.71	0	16212.29	0	0	42.59	16600	41.23	0	78807.06	0.001909	1994 Load	2016	-5.35	600	117.567674	0	1276.0381	150.44268	808,826	61,586	-	668,433	78,807	0.0813043
167	135	2016	47.58	0	25611.06	0	0	256.11	16600	118.245	0	134619.63	0.005927	1994 Load	2016	-3.15	600	4681.310556	0	17949.207	797.89055	3,952,827	789,828	-	3,028,380	134,620	1.517964
168	136	2016	116.72	0	36570.61	0	0	848.05	16600	214.895	0	204232.59	0.009822	1994 Load	2016	-1.21	600	19030.63574	0	77189.539	2005.9725	10,000,626	1,937,552	-	7,858,841	204,233	8.3295471
169	137	2016	252.14	0	51058.79	0	0	2626.52	16600	406.955	0	308018.79	0.00763	1994 Load	2016	0.73	600	31935.54812	0	158540.95	2350.1834	25,272,173	4,185,524	-	20,778,630	308,019	20.040348
170	138	2016	722.7	0	63244.09	0	0	6314.03	16600	745.875	0	416454.71	0.002261	1994 Load	2016	2.47	600	27124.81002	0	106656.31	941.6041	59,585,460	11,996,820	-	47,172,186	416,455	14.276022
171	139	2016	2851.48	0	73389.17	0	0	11664.78	16600	1165.11	0	525059.86	0.000791	1994 Load	2016	3.81	600	37441.64329	0	67635.607	415.32235	133,366,084	47,334,568	-	85,506,456	525,060	9.226841
172	140	2016	9321.32	0	81582.46	0	0	21807.08	16600	2004.98	0	673981.15	0.000231	1994 Load	2016	5.37	600	35743.53367	0	37784.947	155.68965	318,979,094	154,733,912	-	163,571,201	673,981	5.0374355
173	141	2016	29.54	0	30305.63	0	0	182.63	16600	68.065	0	191487.2	0.001909	1995 Load	2016	-5.35	600	936.104876	0	3937.7949	365.54906	2,744,604	490,364	-	2,062,753	191,487	0.3486407
174	142	2016	114.28	0	44379.66	0	0	758.08	16600	176.82	0	283514.79	0.005927	1995 Load	2016	-3.15	600	11243.8035	0	46510.422	1680.3922	10,027,774	1,897,048	-	7,847,211	283,515	4.4931402
175	143	2016	255.88	0	60688.84	0	0	2219.74	16600	404.96	0	394382.67	0.009822	1995 Load	2016	-1.21	600	41720.00578	0	241390.9	3873.6266	29,218,543	4,247,608	-	24,576,553	394,383	21.802286
176	144	2016	622.26	0	77946.95	0	0	5722.97	16600	777.19	0	521619.42	0.00763	1995 Load	2016	0.73	600	78814.20708	0	462222.27	3979.9562	71,430,725	10,329,516	-	60,579,590	521,619	43.666261
177	145	2016	2406.87	0	93333.63	0	0	11123.72	16600	1206.97	0	661955.53	0.002261	1995 Load	2016	2.47	600	90336.08896	0	254703.67	1496.6815	153,266,889	39,954,042	-	112,650,891	661,956	25.150731
178	146	2016	5798.14	0	113624.94	0	0	19016.66	16600	1896.185	0	811594.62	0.000791	1995 Load	2016	3.81	600	76133.05708	0	170424.04	641.97134	312,514,625	96,249,124	-	215,453,907	811,595	15.042178
179	147	2016	12096.32	0	124697.52	0	0	30985.76	16600	2676.095	0	988462.94	0.000231	1995 Load	2016	5.37	600	46384.54867	0	77085.257	228.33494	535,489,785	200,798,912	-	333,702,410	988,463	7.1577106
180	148	2016	0.63	0	14223.56	0	0	27.64	16600	33.47	0	74832	0.001909	1996 Load	2016	-5.35	600	19.964322	0	908.80341	142.85429	561,353	10,458	-	476,063	74,832	0.0527648
181	149	2016	3.41	0	22916.5	0	0	169.01	16600	88.055	0	114931.35	0.005927	1996 Load	2016	-3.15	600	335.503762	0	11960.167	681.19811	2,189,450	56,606	-	2,017,912	114,931	1.0017223
182	150	2016	11.18	0	30422.22	0	0	633.74	16600	256.16	0	181916.41	0.009822	1996 Load	2016	-1.21	600	1822.845336	0	76542.413	1786.783	8,160,460	185,588	-	7,792,956	181,916	6.2245943
183	151	2016	31.23	0	41585.25	0	0	1867.03	16600	381.485	0	257493.6	0.00763	1996 Load	2016	0.73	600	3955.52934	0	121043.46	1964.6762	16,640,061	518,418	-	15,864,149	257,494	14.245439
184	152	2016	94.25	0	52806.78	0	0	4559.58	16600	721.095	0	343681.63	0.002261	1996 Load	2016	2.47	600	3537.44755	0	86095.952	777.06417	39,986,937	1,564,550	-	38,078,705	343,682	10.30921
185	153	2016	184.39	0	62129.55	0	0	8235.08	16600	1078.5	0	436331.16	0.000791	1996 Load	2016	3.81	600	2421.151334	0	53002.315	345.13795	70,503,925	3,060,874	-	67,006,720	436,331	6.5139483
186	154	2016	338.81	0	76542.52	0	0	17091.9	16600	1795.465	0	573355.64	0.000231	1996 Load	2016	5.37	600	1299.200826	0	31746.195	132.44515	143,627,017	5,624,246	-	137,429,416	573,356	3.9482289
187	155	2016	1.88	0	20706.31	0	0	81.49	16600	65.23	0	110681.55	0.001909	1997 Load	2016	-5.35	600	59.576072	0	2578.434	211.29108	1,492,562	31,208	-	1,350,673	110,682	0.1555644
188	156	2016	16.61	0	30746.02	0	0	337.12	16600	120.415	0	173819.58	0.005927	1997 Load	2016	-3.15	600	1634.228002	0	21943.425	1030.2287	4,151,828	275,726	-	3,702,282	173,820	1.9981102
189	157	2016	66.04	0	40472.97	0	0	1100.03	16600	319.625	0	239300.73	0.009822	1997 Load	2016	-1.21	600	10767.50501	0	127059.09	2350.4118	14,271,738	1,096,264	-	12,936,173	239,301	10.804495
190	158	2016	154.47	0	54044.83	0	0	3132.46	16600	578.3	0	333056.02	0.00763	1997 Load	2016	0.73	600	19564.86126	0	238468.98	2541.2174	34,151,383	2,564,202	-	31,254,125	333,056	23.90067
191	159	2016	367.65	0	69752.59	0	0	7029.76	16600	1052.285	0	447996.78	0.002261	1997 Load	2016	2.47	600	13798.86039	0	165956.51	1012.9207	79,950,591	6,102,990	-	73,399,604	447,997	15.894287
192	160	2016	932.32	0	81574.3	0	0	11964.79	16600	1516.575	0	549014.38	0.000791	1997 Load	2016	3.81	600	12241.92099	0	97857.413	434.27037	139,739,070	15,476,512	-	123,713,544	549,014	9.4641489
193	161	2016	3836.42	0	94295.62	0	0	22194.77	16600	2416.755	0	704447.81	0.000231	1997 Load	2016	5.37	600	14711.13613	0	52642.454	162.72744	292,278,431	63,684,572	-	227,889,411	704,448	5.1269919
194	162	2016	2.26	0	14520.85	0	0	40.58	16600	47.8	0	84188.99	0.001909	1998 Load	2016	-5.35	600	71.618044	0	1325.0305	160.71678	815,802	37,516	-	694,097	84,189	0.0774672
195	163	2016	3.52	0	21997.24	0	0	152.86	16600	80.045	0	136211.18	0.005927	1998 Load	2016	-3.15	600	346.326464	0	10436.078	807.32366	1,955,412	58,432	-	1,760,769	136,211	0.9060012
196	164	2016	15.24	0	30499.18	0	0	631.22	16600	189.45	0	196861.84	0.009822	1998 Load	2016	-1.21	600	2484.808848	0	56752.2	1933.577	6,227,915	252,984	-	5,778,070	196,862	6.1998428
197	165	2016	54.53	0	42890.93	0	0	2074.21	16600	398.52	0	289651.46	0.00763	1998 Load	2016	0.73	600	6906.66074	0	130418.78	2210.0406	18,287,743	905,198	-	17,092,893	289,651	15.826222
198	166	2016	105.91	0	55323.54	0	0	5093.12	16600	713.36	0	385801.72	0.002261	1998 Load	2016	2.47	600	3975.077666	0	89231.723	872.29769	41,609,508	1,758,106	-	39,465,600	385,802	11.515544
199	167	2016	202.36	0	65963.44	0	0	9362.72	16600	1049.925	0	469971.86	0.000791	1998 Load	2016	3.81	600	2657.108216	0	54782.022	371.74774	73,085,813	3,359,176	-	69,256,665	469,972	7.4059115
200	168	2016	432.03	0	78750.79	0	0	18782.4	16600	1881.29	0	609811.61	0.000231	1998 Load	2016	5.37	600	1656.662238	0	34223.36	140.86648	155,934,583	7,171,698	-	148,153,074	609,812	4.3387344
201	169	2016	180.28	0	38902.72	0	0	444.64	16600	106.415	0	185101.34	0.001909	1999 Load	2016	-5.35	600	5712.965032	0	7902.9411	353.35846	7,317,582	2,992,648	-	4,139,833	185,101	0.8488178
202	170	2016	328.84	0	52080.41	0	0	1412.79	16600	287.085	0	259825.8	0.005927	1999 Load	2016	-3.15	600	32353.97569	0	88617.567	1539.9875	20,670,074	5,458,744	-	14,951,505	259,826	8.3736063
203	171	2016	1000.72	0	67335.8	0	0	3607.34	16600	597.665	0	347985.88	0.009822	1999 Load	2016	-1.21	600	163162.5925	0	395279.03	3417.9173	57,204,189	16,611,952	-	40,244,251	347,986	35.431293
204	172	2016	6130.38	0	81687.54	0	0	8170.84	16600	884.945	0	468377.72	0.00763	1999 Load	2016	0.73	600	776461.67	0	551564.92	3573.722	174,521,666	101,764,308	-	72,288,980	468,378	62.343509
205	173	2016	15591.36	0	92434.14	0	0	14681.51	16600	1294.23	0	605513.22	0.002261	1999 Load	2016	2.47	600	585184.2783	0	270485.77	1369.0654	379,053,126	258,816,576	-	119,631,037	605,513	33.194894
206	174	2016	20357.32	0	99722.65	0	0	20531.36	16600	1683.11	0	696433.52	0.000791	1999 Load	2016	3.81	600	267303.826	0	132764.75	550.87891	506,472,135	337,931,512	-	167,844,189	696,434	16.240306
207	175	2016	29690.21	0	113902.23	0	0	32261.59	16600	2592.935	0	851012.74	0.000231	1999 Load	2016	5.37	600	113850.0793	0	68223.789	196.58394	789,049,577	492,857,486	-	295,341,079	851,013	7.4524273
208	176	2016	1.33	0	11459.45	0	0	13.34	16600	27.39	0	59779.94	0.001909	2000 Load	2016	-5.35	600	42.146902	0	599.18611	114.11991	395,732	22,078	-	313,874	59,780	0.0254661
209	177	2016	13.5	0	18720.73	0	0	142.45	16600	83.62	0	104887.78	0.005927	2000 Load	2016	-3.15	600	1328.2407	0	9278.2885	621.66987	1,894,415	224,100	-	1,565,427	104,888	0.8443012
210	178	2016	24.61	0	25525.16	0	0	443.52	16600	170.715	0	154282.65	0.009822	2000 Load	2016	-1.21	600	4012.542372	0	42799.637	1515.3642	4,920,336	408,526	-	4,357,528	154,283	4.3562534
211	179	2016	66.95	0	34501.74	0	0	1343.37	16600	354.885	0	217769.03	0.00763	2000 Load	2016	0.73	600	8479.7531	0	93422.864	1661.5777	13,573,289	1,111,370	-	12,244,150	217,769	10.249913
212	180	2016	205.02	0	46513.28	0	0	3633.29	16600	628.125	0	317066.41	0.002261	2000 Load	2016	2.47	600	7694.933652	0	66057.724	716.88715	32,936,552	3,403,332	-	29,216,154	317,066	8.2148687
213	181	2016	753.73	0	56581.37	0	0	7141.14	16600	947.285	0	402696.62	0.000791	2000 Load	2016	3.81	600	9896.927138	0	42396.558	318.53303	66,513,298	12,511,918	-	53,598,683	402,697	5.6486417
214	182	2016	1548.35	0	67527.83	0	0	14550.74	16600	1654.77	0	523647.7	0.000231	2000 Load	2016	5.37	600	5937.30291	0	25812.639	120.96262	137,969,285	25,702,610	-	111,743,027	523,648	3.3612209
215	183	2016	0.08	0	15940.38	0	0	24.54	16600	31.285	0	73450.27	0.001909	2001 Load	2016	-5.35	600	2.535152	0	952.00835	140.21657	573,473	1,328	-	498,695	73,450	0.0468469
216	184	2016	2.39	0	23889.81	0	0	148.81	16600	83.06	0	120370.54	0.005927	2001 Load	2016	-3.15	600	235.147798	0	11760.873	713.43619	2,144,332	39,674	-	1,984,288	120,371	0.8819969
217	185	2016	7	0	32672.85	0	0	601.46	16600	172.1	0	176473.9	0.009822	2001 Load	2016	-1.21	600	1141.3164	0	55229.081	1733.3266	5,915,671	116,200	-	5,622,997	176,474	5.9075401
218	186	2016	31.36	0	43492.51	0	0	1958.02	16600	343.29	0	260465.15	0.00763	2001 Load	2016	0.73	600	3971.99488	0	113920.05	1987.3491	15,711,585	520,576	-	14,930,544	260,465	14.939693

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						
219	187	2016	70	0	57097.64	0	0	5132.07	16600	617.76	0	367904.32	0.002261	2001 Load	2016	2.47	600	2627.282	0	79751.435	831.83167					36,802,542	1,162,000	-	35,272,638	367,904	11.60361
220	188	2016	193.75	0	65422.48	0	0	9162.33	16600	942.93	0	453424.38	0.000791	2001 Load	2016	3.81	600	2544.05375	0	48795.856	358.65868					65,358,493	3,216,250	-	61,688,819	453,424	7.247403
221	189	2016	532.82	0	76244.31	0	0	18360.2	16600	1726.24	0	586647.09	0.000231	2001 Load	2016	5.37	600	2043.151572	0	30403.291	135.51548					141,047,437	8,844,812	-	131,615,978	586,647	4.2412062
222	190	2016	4.85	0	28492.94	0	0	105.9	16600	46.215	0	146188.76	0.001909	2002 Load	2016	-5.35	600	153.69359	0	2513.7735	279.07434					1,543,500	80,510	-	1,316,801	146,189	0.2021631
223	191	2016	27.55	0	41688.94	0	0	489.98	16600	117.165	0	225237.34	0.005927	2002 Load	2016	-3.15	600	2710.59491	0	28950.341	1334.9817					5,567,052	457,330	-	4,884,485	225,237	2.9041115
224	192	2016	92.27	0	57856.24	0	0	1653.38	16600	259.74	0	326411.68	0.009822	2002 Load	2016	-1.21	600	15044.1806	0	147600.89	3206.0155					16,885,673	1,531,682	-	15,027,580	326,412	16.239498
225	193	2016	237.51	0	77986.13	0	0	5071.63	16600	570.225	0	451548.04	0.00763	2002 Load	2016	0.73	600	30082.54158	0	339303.36	3445.3115					48,863,855	3,942,666	-	44,469,641	451,548	38.696537
226	194	2016	600.22	0	98145.21	0	0	11211.17	16600	1110.82	0	592457.59	0.002261	2002 Load	2016	2.47	600	22527.81717	0	246497.98	1339.5466					119,577,772	9,963,652	-	109,021,662	592,458	25.348455
227	195	2016	1294.56	0	113994.26	0	0	18411.17	16600	1553.63	0	717886.81	0.000791	2002 Load	2016	3.81	600	16998.34954	0	140089.98	567.84847					199,312,485	21,489,696	-	177,104,902	717,887	14.563235
228	196	2016	3577.68	0	132409.11	0	0	31889.65	16600	2564.935	0	890916.53	0.000231	2002 Load	2016	5.37	600	13718.97173	0	78452.396	205.80172					399,901,165	59,389,488	-	339,620,761	890,917	7.3665092
229	197	2016	0.78	0	12719.78	0	0	23.58	16600	33.645	0	72254.08	0.001909	2003 Load	2016	-5.35	600	24.717732	0	816.96991	137.93304					513,159	12,948	-	427,957	72,254	0.0450142
230	198	2016	11.73	0	20228.32	0	0	145.8	16600	119.635	0	116824.47	0.005927	2003 Load	2016	-3.15	600	1154.093586	0	14343.429	692.41863					2,731,558	194,718	-	2,420,015	116,824	0.8641566
231	199	2016	27.73	0	27934.44	0	0	530.26	16600	184.915	0	181460.66	0.009822	2003 Load	2016	-1.21	600	4521.243396	0	50735.511	1782.3066					5,807,276	460,318	-	5,165,497	181,461	5.2082137
232	200	2016	104.96	0	41795.11	0	0	1906.31	16600	376.4	0	273253.65	0.00763	2003 Load	2016	0.73	600	13294.02368	0	120032.71	2084.9253					17,747,269	1,742,336	-	15,731,679	273,254	14.545145
233	201	2016	488.85	0	51416.25	0	0	4505.32	16600	651.8	0	366276.86	0.002261	2003 Load	2016	2.47	600	18347.81151	0	75773.146	828.15198					41,994,299	8,114,910	-	33,513,112	366,277	10.186529
234	202	2016	1130.75	0	60792.83	0	0	8241.49	16600	1052.045	0	460825.21	0.000791	2003 Load	2016	3.81	600	14847.42595	0	50589.823	364.51274					83,188,068	18,770,450	-	63,956,793	460,825	6.5190186
235	203	2016	2439.2	0	69999.9	0	0	16107.93	16600	1791.895	0	589085.68	0.000231	2003 Load	2016	5.37	600	9353.35632	0	28974.901	136.07879					166,512,276	40,490,720	-	125,432,471	589,086	3.7209318
236	204	2016	0.71	0	7116	0	0	10.3	16600	30.76	0	37168.87	0.001909	2004 Load	2016	-5.35	600	22.499474	0	417.8575	70.955373					267,843	11,786	-	218,888	37,169	0.0196627
237	205	2016	12.45	0	11250.83	0	0	79.26	16600	92.7	0	65272.55	0.005927	2004 Load	2016	-3.15	600	1224.93309	0	6181.5762	386.8704					1,314,894	206,670	-	1,042,952	65,273	0.469774
238	206	2016	14.06	0	15726.76	0	0	233.01	16600	140.355	0	98554.9	0.009822	2004 Load	2016	-1.21	600	2292.415512	0	21680.389	968.00623					2,539,280	233,396	-	2,207,329	98,555	2.2886242
239	207	2016	51.35	0	23212.6	0	0	862.34	16600	297.735	0	156185.17	0.00763	2004 Load	2016	0.73	600	6503.8883	0	52732.482	1191.6928					7,919,799	852,410	-	6,911,203	156,185	6.5796542
240	208	2016	189.42	0	29515.59	0	0	2115.96	16600	492.585	0	206916.76	0.002261	2004 Load	2016	2.47	600	7109.425092	0	32872.536	467.83879					17,890,226	3,144,372	-	14,538,937	206,917	4.7841856
241	209	2016	885.99	0	35965.45	0	0	4372.44	16600	731.835	0	275448.87	0.000791	2004 Load	2016	3.81	600	11633.58029	0	20819.733	217.88006					41,303,658	14,707,434	-	26,320,775	275,449	3.4586
242	210	2016	2128.96	0	42624.39	0	0	9364.63	16600	1301.475	0	362590.61	0.000231	2004 Load	2016	5.37	600	8163.710016	0	12814.628	83.758431					91,177,905	35,340,736	-	55,474,578	362,591	2.1632295
243	211	2016	14.87	0	27881.49	0	0	127.36	16600	63.81	0	129980.34	0.001909	2005 Load	2016	-5.35	600	471.221378	0	3396.336	248.13247					2,155,940	246,842	-	1,779,118	129,980	0.2431302
244	212	2016	52.55	0	40666.87	0	0	561.8	16600	142.19	0	201527.47	0.005927	2005 Load	2016	-3.15	600	5170.29991	0	34272.417	1194.4533					6,856,280	872,330	-	5,782,422	201,527	3.3297886
245	213	2016	136.23	0	56543.3	0	0	1912.33	16600	342.1	0	292592.77	0.009822	2005 Load	2016	-1.21	600	22211.6476	0	189991.49	2873.8462					21,897,474	2,261,418	-	19,343,463	292,593	18.782905
246	214	2016	362.75	0	73070.39	0	0	4833.56	16600	634.195	0	403856.28	0.00763	2005 Load	2016	0.73	600	45945.1895	0	353580.88	3081.4234					52,766,382	6,021,650	-	46,340,876	403,856	36.880063
247	215	2016	1516.05	0	91376.51	0	0	10628.85	16600	1139.18	0	542205.5	0.002261	2005 Load	2016	2.47	600	56901.29823	0	235357.2	1225.9266					129,802,928	25,166,430	-	104,094,293	542,206	24.03183
248	216	2016	2974.46	0	104577.15	0	0	16909.68	16600	1604.75	0	658082.84	0.000791	2005 Load	2016	3.81	600	39056.44448	0	132745.76	520.54353					217,854,300	49,376,036	-	167,820,181	658,083	13.375557
249	217	2016	5904.34	0	119253.95	0	0	29372	16600	2489.085	0	814220.75	0.000231	2005 Load	2016	5.37	600	22640.78216	0	68568.473	188.08499					395,659,483	98,012,044	-	296,833,218	814,221	6.784932
250	218	2016	6.54	0	24155.48	0	0	98.58	16600	53.295	0	125164.47	0.001909	2006 Load	2016	-5.35	600	207.248676	0	2457.5823	238.93897					1,521,095	108,564	-	1,287,366	125,164	0.1881892
251	219	2016	34.77	0	35412.47	0	0	444.74	16600	127.825	0	191363.92	0.005927	2006 Load	2016	-3.15	600	3420.957714	0	26829.152	1134.214					5,295,145	577,182	-	4,526,599	191,364	2.635974
252	220	2016	108.4	0	47592.78	0	0	1480.16	16600	319.54	0	271208.17	0.009822	2006 Load	2016	-1.21	600	17674.09968	0	149370.98	2663.8066					17,278,445	1,799,440	-	15,207,797	271,208	14.538132
253	221	2016	292.41	0	64675.66	0	0	4430.04	16600	617.36	0	380150.76	0.00763	2006 Load	2016	0.73	600	37036.06578	0	304651.9	2900.5503					45,162,322	4,854,006	-	39,928,165	380,151	33.801205
254	222	2016	633.57	0	79951.56	0	0	9144.99	16600	1093.09	0	486217.64	0.002261	2006 Load	2016	2.47	600	23779.52938	0	197598.4	1099.3381					98,397,730	10,517,262	-	87,394,251	486,218	20.676822
255	223	2016	1484.03	0	91599.87	0	0	14939.39	16600	1700.7	0	584822.42	0.000791	2006 Load	2016	3.81	600	19486.20432	0	123225.06	462.59453					181,003,619	24,634,898	-	155,783,899	584,822	11.817057
256	224	2016	4684.07	0	103042.3	0	0	25285.44	16600	2694.025	0	703057.72	0.000231	2006 Load	2016	5.37	600	17961.53482	0	64125.261	162.40633					356,057,152	77,755,562	-	277,598,532	703,058	5.8409366
257	225	2016	126.93	0	48542.46	0	0	416.52	16600	95.175	0	229960.15	0.001909	2007 Load	2016	-5.35	600	4022.335542	0	8819.6347	438.99393					6,957,027	2,107,038	-	4,620,029	229,960	0.7951367
258	226	2016	285.15	0	67178.12	0	0	1382.97	16600	205.315	0	331436.12	0.005927	2007 Load	2016	-3.15	600	28055.39523	0	81749.189	1964.4219					18,857,602	4,733,490	-	13,792,676	331,436	8.1968632
259	227	2016	677.02	0	89005.93	0	0	4091.01	16600	453.235	0	454627.8	0.009822	2007 Load	2016	-1.21	600	110384.8613	0	396225.4	4465.3543					52,033,762	11,238,532	-	40,340,603	454,628	40.1819
260	228	2016	2866.67	0	110653.67	0	0	10024.79	16600	863.63	0	597424.83	0.00763	2007 Load	2016	0.73	600	363086.6889	0	729152.02	4558.3515					143,747,976	47,586,722	-	95,563,829	597,425	76.489148
261	229	2016	10709.2	0	126109	0	0	18503.17	16600	1378.215	0	760340.1	0.002261	2007 Load	2016	2.47	600	401944.1199	0	392973.82	1719.129					352,338,376	177,772,720	-	173,805,315	760,340	41.835667
262	230	2016	17862.66	0	138241.51	0	0	27051.91	16600	1952.9	0	881062.52	0.000791	2007 Load	2016	3.81	600	234547.4434	0	213547.73	696.92045					567,373,063	296,520,156	-	269,971,845	881,063	21.398061
263	231	2016	30287.39	0	146888.96	0	0	40635.11	16600	2765.695	0	1059628	0.000231	2007 Load	2016	5.37	600	116140.0257	0	93843.764	244.77407					910,080,364	502,770,674	-	406,250,062	1,059,628	9.3867104
264	232	2016	0.69	0	15937.46	0	0	27.56	16600	43.96	0	80770.36	0.001909	2008 Load	2016	-5.35	600	21.865686	0	1337.4659	154.19062					792,835	11,454	-	700,611	80,770	0.052612
265	233	2016	2.18	0	25902.48	0	0	208.53	16600	107.385	0	137158.63	0.005927	2008 Load	2016	-3.15	600	214.486276	0	16486.175	812.9392					2,954,884	36,188	-	2,781,538	137,159	1.2359573
266	234	2016	14.96	0	37120.95	0	0	775.59	16600	223.41	0	206919.91	0.009822	2008 Load	2016	-1.21	600	2439.156192	0	81455.726	2032.3674					8,748,447	248,336	-	8,293,191	206,920	7.617845
267	235	2016	52.47	0	50234.82	0	0	2276.66	16600	409.76	0	300963.18	0.00763	2008 Load	2016	0.73	600	6645.74526	0	157057.6	2296.3491					21,756,185	871,002	-	20,584,220	300,963	17.370916
268	236	2016	115.83	0	63035.71	0	0	5498.59	16600	714.82	0	400289.16	0.002261	2008 Load	2016	2.47	600	4347.401058	0	101878.82	905.05379					47,382,253	1,922,778	-	45,059,186	400,289	12.432312
269	237	2016	211.76	0	77714.21	0	0	10535.79	16600	1054.15	0	516176.34	0.000791	2008 Load	2016	3.81	600	2780.535856	0	64800.646	408.29548					85,953,827	3,515,216	-	81,922,434	516,176	8.3338099
270	238	2016	467.87	0	90119.88	0	0	20644.43	16600	1797	0	651326.24	0.000231	2008 Load	2016	5.37	600	1794.094302	0	37409.393	150.45636					170,363,393	7,766,642	-	161,945,424	651,326	4.7688633
271	239	2016	3.51	0	10082.38	0	0	14.85	16600	28.585	0	46878.99	0.001909	2009 Load	2016	-5.35	600	111.229794	0	550.18302	89.491992					393,350	58,266	-	288,205	46,879	0.0283487
272	240	2016	13.11	0	15227.33	0	0	95.27	16600	91.675	0	77356.79	0.005927	2009 Load	2016	-3.15	600	1289.869302	0	8273.8874	458.49369					1,690,948	217,626	-	1,395,965	77,357	0.5646653
273	241	2016	30.72	0	20981.35	0	0	362.2	16600	141.945	0	123270.02	0.009822	2009 Load	2016	-1.21	600	5008.748544	0	29251.858	1210.7581					3,611,420	509,952	-	2,978,198	123,270	3.5575284
274	242	2016	127.16	0	30525.5	0	0	1296.64	16600	298.79	0	185024.2	0.00763	2009 Load	2016	0.73	600	16105.83128	0	69591.049	1411.7346					11,416,594	2,110,856	-	9,120,714	185,024	9.8933632
275	243	2016	811.67	0	38438.94	0	0	3306.31	16600	579.485	0	248964.1	0.002261	2009 Load	2016	2.47	600	30464.08544	0	50363.298	562.90783					35,997,475	13,473,722	-	22,274,789	248,964	7.4755669
276	244	2016	1587.71	0	47094.3	0	0	6307.7	16600	921.025	0	324382.55	0.000791	2009 Load	2016	3.81	600	20847.58493	0	34309.647	256.5866					70,055,396	26,355,986	-	43,375,028	324,383	4.9893907
277	245	2016	2493.3	0	56248.41	0	0	13071.82	16600	1539.105	0	441239.22	0.000231	2009 Load	2016	5.37	600	9560.80818	0	19998.18	101.92626					128,402,228	41,388,780	-	86,572,209	441,239	3.0195904

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						
1	1	2016	3.47	0	9855.79	0	295300.59	630.27	16600	91.69	0	71722.92	0.000642	1975 Hourl	2016	-4.76	400	36.980484	0	580.16088	46.046115	**311**	**42,257**	**-**	**5,706**	1,033,002	57,602	-	903,677	71,723	0.4046333
2	2	2016	5.26	0	15664.29	0	295300.91	947.96	16600	147.13	0	117628.48	0.002618	1975 Hourl	2016	-3.05	400	228.593288	0	6033.6705	307.95136					2,509,631	87,316	-	2,304,687	117,628	2.4817593
3	3	2016	20.73	0	19938.13	0	295304.84	1352.01	16600	288.38	0	158732.14	0.006532	1975 Hourl	2016	-1.53	400	2247.778776	0	37557.419	1036.8383					6,252,608	344,118	-	5,749,758	158,732	8.8313293
4	4	2016	13.73	0	26655.14	0	295302.38	2096.27	16600	418.09	0	217368.25	0.008986	1975 Hourl	2016	0	400	2048.071148	0	100142.21	1953.2711					11,589,534	227,918	-	11,144,247	217,368	18.837082
5	5	2016	30.67	0	34650.47	0	295297.47	3671.84	16600	794.39	0	292388.18	0.006532	1975 Hourl	2016	1.53	400	3325.584904	0	179799.75	1909.8796					28,327,497	509,122	-	27,525,987	292,388	23.984459
6	6	2016	52.48	0	43173.51	0	295303.72	6362.55	16600	1361.17	0	378293.12	0.002618	1975 Hourl	2016	3.05	400	2280.717824	0	153850.66	990.37139					60,015,948	871,168	-	58,766,487	378,293	16.657156
7	7	2016	113.19	0	59093.13	0	295299.59	11916.29	16600	2399.91	0	537666.5	0.000642	1975 Hourl	2016	4.76	400	1206.288468	0	91047.28	345.18189					144,234,814	1,878,954	-	141,818,194	537,667	7.6502582
8	8	2016	0.99	0	10209.39	0	296220.66	559.49	16600	118.18	0	104145.16	0.000642	1976 Hourl	2016	-4.76	400	10.550628	0	774.60235	66.861193					1,327,125	16,434	-	1,206,546	104,145	0.3591926
9	9	2016	2.41	0	14859.44	0	296217.66	858.04	16600	233.57	0	146663.49	0.002618	1976 Hourl	2016	-3.05	400	104.735708	0	9086.3434	383.96502					3,657,389	40,006	-	3,470,719	146,663	2.2463487
10	10	2016	5.69	0	19784.37	0	296223.19	1297.05	16600	522.29	0	196604.88	0.006532	1976 Hourl	2016	-1.53	400	616.973528	0	67496.323	1284.2231					10,624,237	94,454	-	10,333,179	196,605	8.4723306
11	11	2016	9.44	0	24641.16	0	296220.44	1896.37	16600	791.89	0	254365.2	0.008986	1976 Hourl	2016	0	400	1408.142144	0	175344.61	2285.7257					19,924,157	156,704	-	19,513,088	254,365	17.040781
12	12	2016	14.51	0	33205.5	0	296215.75	3455.26	16600	1186.81	0	344400.61	0.006532	1976 Hourl	2016	1.53	400	1573.336712	0	257417.1	2249.6248					39,993,886	240,866	-	39,408,619	344,401	22.569758
13	13	2016	67.43	0	39948.58	0	296018.47	5567.53	16600	1712.29	0	432296.92	0.002618	1976 Hourl	2016	3.05	400	2930.426884	0	179080.5	1131.7533					69,955,189	1,119,338	-	68,403,554	432,297	14.575794
14	14	2016	212.19	0	50040.29	0	296216.97	9598.91	16600	2893.98	0	558147.08	0.000642	1976 Hourl	2016	4.76	400	2261.351268	0	92971.614	358.33043					148,896,100	3,522,354	-	144,815,598	558,147	6.1625002
15	15	2016	23.47	0	19817.6	0	295305.47	1158.77	16600	107.22	0	169260.93	0.000642	1977 Hourl	2016	-4.76	400	250.124484	0	1364.1493	108.66552					2,683,706	389,602	-	2,124,843	169,261	0.7439303
16	16	2016	55.01	0	29908.86	0	295302.84	1779.45	16600	252.22	0	258089	0.002618	1977 Hourl	2016	-3.05	400	2390.668588	0	19749.178	675.677					8,714,868	913,166	-	7,543,613	258,089	4.6586001
17	17	2016	85.1	0	41458.62	0	295302.88	2654.65	16600	398.01	0	371163.02	0.006532	1977 Hourl	2016	-1.53	400	9227.49512	0	107784.18	2424.4368					18,284,768	1,412,660	-	16,500,945	371,163	17.340174
18	18	2016	253.92	0	55521.18	0	295303.72	4268.51	16600	686.97	0	500820.39	0.008986	1977 Hourl	2016	0	400	37876.63699	0	342738.49	4500.372					42,857,277	4,215,072	-	38,141,385	500,820	38.356831
19	19	2016	876.66	0	71676.33	0	295301.09	7395.66	16600	1252.4	0	663616.53	0.006532	1977 Hourl	2016	1.53	400	95057.29579	0	586360.89	4334.7432					104,983,608	14,552,556	-	89,767,436	663,617	48.308451
20	20	2016	2489.93	0	89657.85	0	295302.03	11670.03	16600	1746.47	0	857379.05	0.002618	1977 Hourl	2016	3.05	400	108209.3699	0	409938.86	2244.6184					198,774,962	41,332,838	-	156,584,745	857,379	30.552139
21	21	2016	8534.18	0	111329.5	0	295300.09	15295.78	16600	2903.96	0	1117982.99	0.000642	1977 Hourl	2016	4.76	400	90950.4631	0	207556.3	717.74508					466,081,786	141,667,388	-	323,296,415	1,117,983	9.8198908
22	22	2016	4.89	0	10722.35	0	295303.28	636.08	16600	117.53	0	95306.25	0.000642	1978 Hourl	2016	-4.76	400	52.113708	0	809.04698	61.186613					1,436,678	81,174	-	1,260,198	95,306	0.4083634
23	23	2016	23.68	0	15601.85	0	295304.81	986.91	16600	199.62	0	139976.11	0.002618	1978 Hourl	2016	-3.05	400	1029.104384	0	8153.6073	366.45746					3,647,505	393,088	-	3,114,441	139,976	2.5837304
24	24	2016	40.45	0	22661.36	0	295297.44	1530.66	16600	361.17	0	211197.72	0.006532	1978 Hourl	2016	-1.53	400	4386.04204	0	53461.829	1379.5435					9,067,271	671,470	-	8,184,603	211,198	9.9982711
25	25	2016	52.76	0	28137.9	0	295305.03	2302.35	16600	565.93	0	271050.13	0.008986	1978 Hourl	2016	0	400	7870.082576	0	143093.8	2435.6565					17,070,948	875,816	-	15,924,082	271,050	20.688917
26	26	2016	188.58	0	37452.25	0	295301.81	4128.83	16600	1077.4	0	373731.67	0.006532	1978 Hourl	2016	1.53	400	20447.9557	0	263573.09	2441.2153					43,855,214	3,130,428	-	40,351,054	373,732	26.969518
27	27	2016	596.22	0	48521.09	0	295299.69	7256.98	16600	1583.13	0	503125.22	0.002618	1978 Hourl	2016	3.05	400	25911.00574	0	201102.18	1317.1818					87,215,570	9,897,252	-	76,815,193	503,125	18.998774
28	28	2016	1769.59	0	63104.14	0	295305.53	12595.53	16600	2634.32	0	689242.12	0.000642	1978 Hourl	2016	4.76	400	18858.87455	0	106723.83	442.49344					196,300,934	29,375,194	-	166,236,498	689,242	8.0863303
29	29	2016	3.46	0	8362.13	0	295929.81	509.89	16600	102.01	0	87479.43	0.000642	1979 Hourl	2016	-4.76	400	36.873912	0	547.63941	56.161794					997,936	57,436	-	853,021	87,479	0.3273494
30	30	2016	12.79	0	12472.28	0	295927.66	808.43	16600	279.68	0	128228.65	0.002618	1979 Hourl	2016	-3.05	400	555.838052	0	9132.2314	335.70261					3,828,790	212,314	-	3,488,247	128,229	2.1164697
31	31	2016	9.71	0	17580.26	0	295927.38	1181.37	16600	394.68	0	176258.45	0.006532	1979 Hourl	2016	-1.53	400	1052.866952	0	45322.785	1151.3202					7,276,021	161,186	-	6,938,577	176,258	7.7167088
32	32	2016	15.67	0	21233.47	0	295929.91	1700.56	16600	506.51	0	232926.45	0.008986	1979 Hourl	2016	0	400	2337.456292	0	96644.114	2093.0771					11,248,013	260,122	-	10,754,965	232,926	15.281232
33	33	2016	39.38	0	30399.13	0	295932.41	3239.84	16600	1030.47	0	335545.28	0.006532	1979 Hourl	2016	1.53	400	4270.020656	0	204617.46	2191.7818					32,314,645	653,708	-	31,325,391	335,545	21.162635
34	34	2016	98.79	0	38988.23	0	295930.09	5631.63	16600	1656.58	0	437901.73	0.002618	1979 Hourl	2016	3.05	400	4293.294852	0	169089.09	1146.4267					66,664,938	1,639,914	-	64,587,122	437,902	14.743607
35	35	2016	288.12	0	50856.93	0	295931.56	10004.19	16600	2562.8	0	582090.86	0.000642	1979 Hourl	2016	4.76	400	3070.552464	0	83675.802	373.70233					135,701,023	4,782,792	-	130,336,140	582,091	6.42269
36	36	2016	27.14	0	20451.96	0	295479.31	1161.66	16600	139.96	0	167192.18	0.000642	1980 Hourl	2016	-4.76	400	289.236408	0	1837.697	107.33738					3,480,173	450,524	-	2,862,456	167,192	0.7457857
37	37	2016	65.77	0	29885.5	0	295482.19	1822.41	16600	382.23	0	244678.79	0.002618	1980 Hourl	2016	-3.05	400	2858.285276	0	29905.767	640.56907					12,759,595	1,091,782	-	11,423,135	244,679	4.7710694
38	38	2016	74.76	0	37410.69	0	295480.69	2567.23	16600	466.58	0	315069.35	0.006532	1980 Hourl	2016	-1.53	400	8106.316512	0	114016.58	2058.033					19,011,165	1,241,016	-	17,455,080	315,069	16.769146
39	39	2016	126.23	0	48393.78	0	295483.25	4112.5	16600	834.82	0	419559.25	0.008986	1980 Hourl	2016	0	400	18829.42615	0	363035.26	3770.1594					42,915,073	2,095,418	-	40,400,095	419,559	36.954925
40	40	2016	352.52	0	61535.65	0	295480.59	7257.97	16600	1417.14	0	535018.89	0.006532	1980 Hourl	2016	1.53	400	38224.16662	0	569620.65	3494.7434					93,591,482	5,851,832	-	87,204,631	535,019	47.40906
41	41	2016	889.41	0	77423.75	0	295482.44	11912.77	16600	2242.96	0	691342.88	0.002618	1980 Hourl	2016	3.05	400	38652.69131	0	454637.62	1809.9357					189,113,923	14,764,206	-	173,658,374	691,343	31.187632
42	42	2016	2202.75	0	98900.41	0	295482.25	16883.44	16600	3514.47	0	896553.07	0.000642	1980 Hourl	2016	4.76	400	23475.1473	0	223147.98	575.58707					385,044,727	36,565,650	-	347,582,524	896,553	10.839168
43	43	2016	7.16	0	7482.44	0	296013.88	474.97	16600	82.66	0	57936.06	0.000642	1981 Hourl	2016	-4.76	400	76.305552	0	397.07603	37.194951					795,291	118,856	-	618,498	57,936	0.3049307
44	44	2016	11.08	0	12104.75	0	296013.03	746.41	16600	230.15	0	94972.71	0.002618	1981 Hourl	2016	-3.05	400	481.523504	0	7293.5077	248.63855					3,064,809	183,928	-	2,785,908	94,973	1.9541014
45	45	2016	16.2	0	15304.32	0	296011.75	1054.15	16600	309.93	0	125134.88	0.006532	1981 Hourl	2016	-1.53	400	1756.58544	0	30983.026	817.38104					5,137,323	268,920	-	4,743,268	125,135	6.8857078
46	46	2016	38.37	0	20961.04	0	296012.22	1668.58	16600	549.82	0	178509.99	0.008986	1981 Hourl	2016	0	400	5723.560812	0	103561.84	1604.0908					12,340,251	636,942	-	11,524,799	178,510	14.99386
47	47	2016	63.72	0	26590.72	0	296013.44	2857.21	16600	860.58	0	233194.65	0.006532	1981 Hourl	2016	1.53	400	6909.236064	0	149474.64	1523.2275					24,174,388	1,057,752	-	22,883,442	233,195	18.663296
48	48	2016	206.32	0	35365.32	0	296011.53	5224.41	16600	1361.8	0	324871.57	0.002618	1981 Hourl	2016	3.05	400	8966.419616	0	126084.17	850.51377					51,910,276	3,424,912	-	48,160,493	324,872	13.677505
49	49	2016	609.04	0	45210.12	0	294904.69	9669.27	16600	2428.67	0	440749.72	0.000642	1981 Hourl	2016	4.76	400	6490.661088	0	70491.897	282.96132					120,351,276	10,110,064	-	109,800,462	440,750	6.2076713
50	50	2016	3.84	0	9115.95	0	296814.22	564.8	16600	67.65	0	75343.79	0.000642	1982 Hourl	2016	-4.76	400	40.923648	0	395.91756	48.370713					755,782	63,744	-	616,694	75,344	0.3626016
51	51	2016	7.7	0	14323.1	0	296815.06	893.1	16600	156.33	0	118119.11	0.002618	1982 Hourl	2016	-3.05	400	334.63276	0	5862.0429	309.23583					2,485,069	127,820	-	2,239,130	118,119	2.3381358
52	52	2016	17.64	0	18966.47	0	296817.69	1249.45	16600	266.43	0	162789.01	0.006532	1982 Hourl	2016	-1.53	400	1912.726368	0	33007.741	1063.3378					5,508,850	292,824	-	5,053,237	162,789	8.1614074
53	53	2016	51.16	0	25724.73	0	296814.75	1964.88	16600	460.44	0	222428.03	0.008986	1982 Hourl	2016	0	400	7631.414416	0	106436.43	1998.7383					12,916,379	849,256	-	11,844,695	222,428	17.656412
54	54	2016	161.72	0	34214	0	296813.97	3493.24	16600	896.28	0	312039.62	0.006532	1982 Hourl	2016	1.53	400	17535.49366	0	200305.9	2038.2428					33,661,916	2,684,552	-	30,665,324	312,040	22.817844
55	55	2016	601.61	0	41959.24	0	296813.78	5940.46	16600	1309.79	0	398950.71	0.002618	1982 Hourl	2016	3.05	400	26145.24867	0	143879.5	1044.453					65,343,470	9,986,726	-	54,957,793	398,951	15.552124
56	56	2016	2171.92	0	54294.55	0	296814.25	10859.65	16600	2205.49	0	550011.15	0.000642	1982 Hourl	2016	4.76	400	23146.58582	0	76876.988	353.10716					156,349,970	36,053,872	-	119,746,087	550,011	6.9718953
57	57	2016	124.63	0	39002.46	0	295752.91	2056.21	16600	236.1	0	268296.99	0.000642	1983 Hourl	2016	-4.76	400	1328.206836	0	5911.8447	172.24667					11,545,636	2,068,858	-	9,208,481	268,297	1.3200868
58	58	2016	265.07	0	52356.22	0	295759.59	3269.31	16600	491.85	0	360080.63	0.002618	1983 Hourl	2016	-3.05	400	11519.62412	0	67417.183	942.69109					30,511,649	4,400,162	-	25,751,407	360,081	8.5590536
59	59	2016	785.26	0	65373.86	0	295760.69	5150.39	16600	882.88	0	455853.18	0.006532	1983 Hourl	2016	-1.53	400	85146.68411	0	377009.23	2977.633					71,208,443	13,035,316	-	57,717,274	455,853	33.642347
60	60	2016	2339.85	0	78824.05	0	295759.31	8249.37	16600	1414.67	0	566427.54	0.008986	1983 Hourl	2016	0	400	349029.8089	0	1002029	5089.9179					150,917,956	38,841,510	-	111,510,019	566,428	74.128839
61	61	2016	5761.19	0	93010.31	0	295761.44	13029.1	16600	2217.68	0	699168.89	0.006532	1983 Hourl	2016	1.53	400	624692.7451	0	1347336.7	4566.9712					302,602,027	95,635,754	-	206,267,104	699,169	85.106081
62	62	2016	14278.3	0	105025.59	0	295755.91	17186.16	16600	2856.21	0	843600.49	0.002618	1983 Hourl	2016	3.05	400	620517.784	0	785334.92	2208.5461					537,838,521	237,019,780	-	299,975,140	843,600	44.993367
63	63	2016	29314.66	0	123273.57	0	295757.06	19665.19	16600	3767.28	0	1050350.34	0.000642	1983 Hourl	2016	4.76	400	312412.1946	0	298148.69	674.32492					952,079,761	486,623,356	-	464,406,055	1,050,350	12.625052
64	64	2016	2.2	0	9849.21	0	295299.5	563.77	16600	107.73	0	73585.09	0.000642	1984 Hourl	2016	-4.76	400	23.44584	0	681.19756	47.241628					1,171,160	36,520	-	1,061,055	73,585	0.3619403
65	65	2016	4.46	0	13129.63	0	295300.22	820.23	16600	288.02	0	105096.9	0.002618	1984 Hourl	2016	-3.05	400	193.826248	0	9900.2184	275.14368					3,960,729	74,036	-	3,781,596	105,097	2.1473621
66	66	2016	10.51	0	17498.33	0	295300.97	1178.16	16600	349.15	0	145542.11	0.006532	1984 Hourl	2016	-1.53	400	1139.611912	0	39907.528	950.68106					6,429,550	174,466	-	6,109,542	145,542	7.6957411
67	67	2016	21.04	0	24100.64	0	295302.31	1918.51	16600	725.71	0	196248.16	0.008986	1984 Hourl	2016	0	400	3138.486304	0	157165.82	1763.486					18,035,588	349,264	-	17,490,075	196,248	17.239731
68	68	2016	64.18	0	30906.12	0	295302.62	3250.07	16600	1011.54	0	266920.1	0.006532	1984 Hourl	2016	1.53	400	6959.114416	0	204208.46	1743.5221					32,595,085	1,065,388	-	31,262,777	266,920	21.229457
69	69	2016	220.49	0	36613.09	0	295299.34	5155.96	16600	1531.18	0	333458.64	0.002618	1984 Hourl	2016	3.05	400	9582.230812	0	146768.3	872.99472					60,054,824	3,660,134	-	56,061,231	333,459	13.498303
70	70	2016	674.6	0	49662.5	0	295302.25	9983.84	16600	2482.17	0	479808.24	0.000642	1984 Hourl	2016	4.76	400	7189.34712	0	79139.833	308.03689					134,948,936	11,198,360	-	123,270,768	479,808	6.4096253
71	71	2016	2.13	0	6004.36	0	295932.41	373.19	16600	73.72	0	42026.01	0.000642	1985 Hourl	2016	-4.76	400	22.699836	0	284.17579	26.980698					520,025	35,358	-	442,641	42,026	0.239588
72	72	2016	15.52	0	7913.72	0	295931.59	541.84	16600	262.91	0	60412.26	0.002618	1985 Hourl	2016	-3.05	400	674.480576	0	5447.0007	158.1593					2,398,640	257,632	-	2,080,596	60,412	1.4185371
73	73	2016	6.44	0	11678.11	0	295931.62	804.5	16600	273.33	0	96065.83	0.006532	1985 Hourl	2016	-1.53	400	698.296928	0	20849.999	627.502					3,394,948	106,904	-	3,191,978	96,066	5.254994
74	74	2016	24.93	0	16402.64	0	295930.34	1271.46	16600	554.58	0	138397.26	0.008986	1985 Hourl	2016	0	400	3718.748268	0	81741.833	1243.6378					9,648,811	413,838	-	9,096,576	138,397	11.42534
75	75	2016	33.24	0	22672.94	0	295930.56	2341.84	16600	790.16	0	193960.44	0.006532	1985 Hourl	2016	1.53	400	3604.253088	0	117022.41	1266.9496					18,660,995	551,784	-	17,915,250	193,960	15.296899
76	76	2016	37.16	0	28489.42	0	295929.53	4027.93	16600	1254.21	0	261159.08	0.002618	1985 Hourl	2016	3.05	400	1614.929008	0	93545.631	683.71447					36,609,731	616,856	-	35,731,715	261,159	10.545121
77	77	2016	79.73	0	37255.35	0	295930.25	7593.03	16600	2061.93	0	374946.56	0.000642	1985 Hourl	2016	4.76	400	849.698556	0	49317.107	240.71569					78,516,388	1,323,518	-	76,817,924	374,947	4.8747253
78	78	2016	3.12	0	17559.24	0	295849.72	946.78	16600	278.81	0	133781.8	0.000642	1986 Hourl	2016	-4.76	400	33.250464	0	3143.0341	85.887916					5,081,266	51,792	-	4,895,692	133,782	0.6078328
79	79	2016	4.78	0	23189.44	0	295845.41	1381.12	16600	468.43	0	180758.64	0.002618	1986 Hourl	2016	-3.05	400	207.733064	0	28438.364	473.22612					11,122,736	79,348	-	10,862,629	180,759	3.6157722
80	80	2016	6.91	0	30702.97	0	295845.97	2035.13	16600	731.34	0	252366.31	0.006532	1986 Hourl	2016	-1.53	400	749.259592	0	146671.55	1648.4567					22,821,382	114,706	-	22,454,310	252,366	13.293469
81	81	2016	20.57	0	38692.11	0	295850.59	3143.19	16600	1041.35	0	321159.64	0.008986	1986 Hourl	2016	0	400	3068.377532	0	362064.17	2885.9405					40,954,650	341,462	-	40,292,029	321,160	28.244705
82	82	2016	49.02	0	50881.44	0	295843.47	5464.18	16600	1740.53	0	431953.31	0.006532	1986 Hourl	2016	1.53	400	5315.297424	0	578478.31	2821.519					89,806,358	813,732	-	88,560,673	431,953	35.692024
83	83	2016	101.1	0	61274.57	0	295843	8497.54	16600	2435.25	0	533126.6	0.002618	1986 Hourl	2016	3.05	400	4393.68468	0	390655.07	1395.7254					151,430,283	1,678,260	-	149,218,897	533,127	22.24656
84	84	2016	136.83	0	80441.78	0	295846.31	13579.98	16600	3830.32	0	712668.92	0.000642	1986 Hourl	2016	4.76	400	1458.224676	0	197811.6	457.53345					311,101,806	2,271,378	-	308,117,759	712,669	8.7183472
85	85	2016	6.6	0	14059.8	0	296563	838.48	16600	128.55	0	111494.57	0.000642	1987 Hourl	2016	-4.76	400	70.33752	0	1160.3426	71.579514					2,028,442	109,560	-	1,807,387	111,495	0.5383042
86	86	2016	16.67	0	20112.75	0	296560.25	1233.9	16600	222.9	0	164954.58	0.002618	1987 Hourl	2016	-3.05	400	724.458196	0	11736.84	431.85109					4,924,809	276,722	-	4,483,132	164,955	3.2303502
87	87	2016	18.55	0	27274.05	0	296563.81	1790.29	16600	429.46	0	217886.43	0.006532	1987 Hourl	2016	-1.53	400	2011.39876	0	76510.057	1423.2342					12,238,930	307,930	-	11,713,114	217,886	11.694174
88	88	2016	43.99	0	36638.54	0	296563.81	2929.67	16600	617.83	0	299647.92	0.008986	1987 Hourl	2016	0	400	6561.882724	0	203410.59	2692.6362					23,666,271	730,234	-	22,636,389	299,648	26.326015
89	89	2016	59.01	0	45586.14	0	296562.59	4949.1	16600	1001.19	0	384824.83	0.006532	1987 Hourl	2016	1.53	400	6398.525112	0	298123.01	2513.6758					47,004,778	979,566	-	45,640,388	384,825	32.327521
90	90	2016	140.23	0	58132.8	0	296561.34	8505.07	16600	1626.09	0	507002.42	0.002618	1987 Hourl	2016	3.05	400	6094.227524	0	247477.35	1327.3323					97,363,985	2,327,818	-	94,529,165	507,002	22.266273
91	91	2016	411.03	0	77031.62	0	296562.34	14022.27	16600	2900.81	0	674131.12	0.000642	1987 Hourl	2016	4.76	400	4380.428916	0	143457.53	432.79218					230,951,323	6,823,098	-	223,454,094	674,131	9.0022973
92	92	2016	36.64	0	29180.15	0	296984.41	1577.29	16600	135.56	0	195749.75	0.000642	1988 Hourl	2016	-4.76	400	390.479808	0	2539.5344	125.67134					4,759,635	608,224	-	3,955,661	195,750	1.0126202
93	93	2016	98.19	0	41660.83	0	296981.81	2458.63	16600	324.85	0	281212.33	0.002618	1988 Hourl	2016	-3.05	400	4267.219572	0	35430.757	736.21388					15,444,687	1,629,954	-	13,533,521	281,212	6.4366933
94	94	2016	168.95	0	55113.15	0	296980.72	3764.74	16600	605.39	0	386132.75	0.006532	1988 Hourl	2016	-1.53	400	18319.45124	0	217939.85	2522.2191					36,555,653	2,804,570	-	33,364,950	386,133	24.591282

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generatio n	Scheduled Hydro	Total IS Generatio n	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						
95	95	2016	255.13	0	69830.96	0	296983.78	5917.26	16600	960.98	0	497161.78	0.008986	1988 Hourly	2016	0	400	38057.12979	0	603015.92	4467.4958					71,838,476	4,235,158	-	67,106,156	497,162	53.172498
96	96	2016	641.95	0	86659.52	0	296983.59	10352.63	16600	1694.07	0	625202.25	0.006532	1988 Hourly	2016	1.53	400	69607.40884	0	958945.24	4083.8211					158,088,865	10,656,370	-	146,807,293	625,202	67.623379
97	97	2016	1582.58	0	104540.16	0	296982.91	15189.6	16600	2607.89	0	764256.88	0.002618	1988 Hourly	2016	3.05	400	68777.0277	0	713743.34	2000.8245					299,664,323	26,270,828	-	272,629,238	764,257	39.766373
98	98	2016	5020.54	0	130051.28	0	296984.59	19066.83	16600	4083.69	0	950189.03	0.000642	1988 Hourly	2016	4.76	400	53504.89889	0	340959.21	610.02136					615,380,265	83,340,964	-	531,089,112	950,189	12.240905
99	99	2016	10.47	0	9299.69	0	295300.84	575.47	16600	157.01	0	71472.96	0.000642	1989 Hourly	2016	-4.76	400	111.580884	0	937.41266	45.88564					1,705,419	173,802	-	1,460,144	71,473	0.3694517
100	100	2016	12.89	0	12360.03	0	295304.16	787.12	16600	177.75	0	106303.53	0.002618	1989 Hourly	2016	-3.05	400	560.183932	0	5751.7338	278.30264					2,517,273	213,974	-	2,196,995	106,304	2.0606802
101	101	2016	17.02	0	16771.79	0	295302.44	1156.03	16600	257.55	0	145154.1	0.006532	1989 Hourly	2016	-1.53	400	1845.499024	0	28215.461	948.14658					4,747,261	282,532	-	4,319,575	145,154	7.551188
102	102	2016	20.93	0	24110.29	0	295303.84	1881.73	16600	502.89	0	217845.42	0.008986	1989 Hourly	2016	0	400	3122.077868	0	108953.67	1957.5589					12,690,107	347,438	-	12,124,824	217,845	16.909226
103	103	2016	51.41	0	30674.84	0	295302.22	3266.53	16600	906.44	0	284878.24	0.006532	1989 Hourly	2016	1.53	400	5574.447992	0	181621.62	1860.8247					28,943,186	853,406	-	27,804,902	284,878	21.336974
104	104	2016	103.54	0	42389.89	0	295303.94	6163.7	16600	1594.12	0	398907.9	0.002618	1989 Hourly	2016	3.05	400	4499.724152	0	176910.23	1044.3409					69,692,243	1,718,764	-	67,574,571	398,908	16.136567
105	105	2016	163.54	0	51775.55	0	295301.22	10823.81	16600	2439.52	0	522335.42	0.000642	1989 Hourly	2016	4.76	400	1742.878488	0	81089.408	335.33934					129,544,589	2,714,764	-	126,307,490	522,335	6.948886
106	106	2016	11.77	0	10866.27	0	295302.88	603.84	16600	123.04	0	78808.18	0.000642	1990 Hourly	2016	-4.76	400	125.435244	0	858.34492	50.594852					1,611,176	195,382	-	1,336,986	78,808	0.3876653
107	107	2016	27.13	0	16026.95	0	295301.53	955.81	16600	264.32	0	111802.51	0.002618	1990 Hourly	2016	-3.05	400	1179.037244	0	11090.485	292.69897					4,798,404	450,358	-	4,236,243	111,803	2.5023106
108	108	2016	51.71	0	19850.24	0	295307.09	1473.02	16600	560.5	0	140791.41	0.006532	1990 Hourly	2016	-1.53	400	5606.977352	0	72675.421	919.64949					12,125,237	858,386	-	11,126,060	140,791	9.6217666
109	109	2016	109.09	0	25677.82	0	295304.62	2343.25	16600	936.96	0	184255.61	0.008986	1990 Hourly	2016	0	400	16272.69348	0	216194.98	1655.7209					26,054,240	1,810,894	-	24,059,090	184,256	21.056445
110	110	2016	290.55	0	32424.94	0	295300.5	4195.03	16600	1628.29	0	241313.33	0.006532	1990 Hourly	2016	1.53	400	31504.68516	0	344871.35	1576.2587					57,861,649	4,823,130	-	52,797,206	241,313	27.401936
111	111	2016	795.03	0	38267.65	0	295300.84	6713.24	16600	2484.26	0	302521.7	0.002618	1990 Hourly	2016	3.05	400	34551.04976	0	248884.86	792.00181					108,566,812	13,197,498	-	95,066,792	302,522	17.575262
112	112	2016	2213.51	0	46329.41	0	295302.69	11005.21	16600	3817.35	0	383572.07	0.000642	1990 Hourly	2016	4.76	400	23589.81877	0	113541.28	246.25327					213,983,411	36,744,266	-	176,855,573	383,572	7.0653448
113	113	2016	7.08	0	19650.29	0	296218.81	1048.48	16600	229.14	0	159678.49	0.000642	1991 Hourly	2016	-4.76	400	75.452976	0	2890.7125	102.51359					4,779,874	117,528	-	4,502,667	159,678	0.6731242
114	114	2016	13.89	0	28908.68	0	296216.56	1668.52	16600	367.72	0	233813.84	0.002618	1991 Hourly	2016	-3.05	400	603.642732	0	27830.125	612.12463					11,094,688	230,574	-	10,630,300	233,814	4.3681854
115	115	2016	34.02	0	37973.48	0	296215.94	2528.71	16600	849.04	0	301053.53	0.006532	1991 Hourly	2016	-1.53	400	3688.829424	0	210598.23	1966.4817					33,106,789	564,732	-	32,241,003	301,054	16.517534
116	116	2016	31.38	0	47790.7	0	296215.34	3787.13	16600	954.28	0	377519.13	0.008986	1991 Hourly	2016	0	400	4680.879288	0	409812.9	3392.3869					46,504,136	520,908	-	45,605,709	377,519	34.03115
117	117	2016	83.53	0	60144.79	0	296217.28	6404.59	16600	1666.73	0	482391.2	0.006532	1991 Hourly	2016	1.53	400	9057.258136	0	654801.16	3150.9793					102,114,115	1,386,598	-	100,245,126	482,391	41.834782
118	118	2016	201.41	0	74972.29	0	296218.19	10219.12	16600	2417.07	0	613295.88	0.002618	1991 Hourly	2016	3.05	400	8753.036908	0	474416.35	1605.6086					185,169,975	3,343,406	-	181,213,273	613,296	26.753656
119	119	2016	681.65	0	90588.42	0	296214.59	14856.71	16600	3630.23	0	754422.6	0.000642	1991 Hourly	2016	4.76	400	7264.48038	0	211126.07	484.33931					340,926,613	11,315,390	-	328,856,800	754,423	9.5380078
120	120	2016	1.99	0	6246.83	0	295303.09	380.48	16600	118.78	0	43741.49	0.000642	1992 Hourly	2016	-4.76	400	21.207828	0	476.36302	28.082037					818,774	33,034	-	741,998	43,741	0.2442682
121	121	2016	3.63	0	9292.71	0	295306.19	563.07	16600	133.53	0	70554.61	0.002618	1992 Hourly	2016	-3.05	400	157.755444	0	3248.5599	184.71197					1,371,668	60,258	-	1,240,856	70,555	1.4741173
122	122	2016	10.77	0	12175.3	0	295304.56	809.23	16600	255.29	0	96038.49	0.006532	1992 Hourly	2016	-1.53	400	1167.804024	0	20302.974	627.32342					3,383,053	178,782	-	3,108,232	96,038	5.2858904
123	123	2016	25.51	0	16318.28	0	295303.47	1265.74	16600	484.67	0	130761.56	0.008986	1992 Hourly	2016	0	400	3805.265476	0	71070.101	1175.0234					8,463,208	423,466	-	7,908,981	130,762	11.37394
124	124	2016	59.06	0	18892.84	0	295302.41	1937.61	16600	776.7	0	171203.43	0.006532	1992 Hourly	2016	1.53	400	6403.946672	0	95851.018	1118.3008					15,825,668	980,396	-	14,674,069	171,203	12.656469
125	125	2016	244.06	0	25665.55	0	295305	3640.69	16600	1384.73	0	242380.73	0.002618	1992 Hourly	2016	3.05	400	10606.55473	0	93043.346	634.55275					39,833,634	4,051,396	-	35,539,857	242,381	9.5313264
126	126	2016	676.94	0	31086.27	0	295302.5	6614.67	16600	2188.76	0	314040.74	0.000642	1992 Hourly	2016	4.76	400	7214.284968	0	43681.927	201.61416					79,591,629	11,237,204	-	68,040,384	314,041	4.2466181
127	127	2016	12.82	0	16165.81	0	296391.94	936.79	16600	94.08	0	120788.96	0.000642	1993 Hourly	2016	-4.76	400	136.625304	0	976.40458	77.546512					1,854,480	212,812	-	1,520,879	120,789	0.6014192
128	128	2016	28.12	0	23218.25	0	296389.09	1425.73	16600	218.04	0	181072.54	0.002618	1993 Hourly	2016	-3.05	400	1222.061456	0	13253.644	474.04791					5,710,372	466,792	-	5,062,507	181,073	3.7325611
129	129	2016	42.63	0	30046.28	0	296391.62	2045.35	16600	419.98	0	239494.46	0.006532	1993 Hourly	2016	-1.53	400	4622.422056	0	82426.241	1564.3778					13,565,989	707,658	-	12,618,837	239,494	13.360226
130	130	2016	108.63	0	39216.98	0	296389.81	3268.98	16600	787.5	0	315386.71	0.008986	1993 Hourly	2016	0	400	16204.07639	0	277517.98	2834.065					33,002,016	1,803,258	-	30,883,372	315,387	29.375054
131	131	2016	101.13	0	48878.88	0	296387.91	5449.34	16600	1047	0	421615.5	0.006532	1993 Hourly	2016	1.53	400	10965.64726	0	334282.86	2753.9924					53,276,561	1,678,758	-	51,176,187	421,616	35.595089
132	132	2016	294.46	0	62116.2	0	296390.62	9470.09	16600	1796.71	0	539759.81	0.002618	1993 Hourly	2016	3.05	400	12796.87825	0	292181.36	1413.0912					117,032,594	4,888,036	-	111,604,798	539,760	24.792696
133	133	2016	874.92	0	78524.28	0	296389.25	14947.9	16600	2976.37	0	694444.87	0.000642	1993 Hourly	2016	4.76	400	9324.197424	0	150046.51	445.83361					248,935,428	14,523,672	-	233,717,311	694,445	9.5965518
134	134	2016	10.64	0	11326.09	0	295753.44	675.35	16600	86.22	0	85820.47	0.000642	1994 Hourly	2016	-4.76	400	113.392608	0	626.93578	55.096742					1,238,980	176,624	-	976,535	85,820	0.4335747
135	135	2016	6.84	0	16190.93	0	295759.53	972.33	16600	146.45	0	126409.34	0.002618	1994 Hourly	2016	-3.05	400	297.258192	0	6207.7013	330.93965					2,611,115	113,544	-	2,371,162	126,409	2.5455599
136	136	2016	28.46	0	22409.94	0	295750.97	1493.83	16600	303.57	0	178667.99	0.006532	1994 Hourly	2016	-1.53	400	3085.951952	0	44437.101	1167.0593					7,454,089	472,436	-	6,802,985	178,668	9.7576976
137	137	2016	72.71	0	31387.73	0	295755	2453.07	16600	604.83	0	256805.3	0.008986	1994 Hourly	2016	0	400	10845.9762	0	170592.39	2307.6524					20,448,032	1,206,986	-	18,984,241	256,805	22.043287
138	138	2016	163.81	0	41612.78	0	295756.94	4483.47	16600	1049.81	0	361819.34	0.006532	1994 Hourly	2016	1.53	400	17762.11487	0	285353.77	2363.4039					46,766,578	2,719,246	-	43,685,513	361,819	29.286026
139	139	2016	505.62	0	52174.02	0	295756.06	7837.83	16600	1663.11	0	471465.93	0.002618	1994 Hourly	2016	3.05	400	21973.63846	0	227166.83	1234.2978					95,635,892	8,393,292	-	86,771,134	471,466	20.519439
140	140	2016	1618.15	0	65507.58	0	295755.47	13125.96	16600	2737.39	0	627533.58	0.000642	1994 Hourly	2016	4.76	400	17244.94818	0	115123.31	402.87656					206,808,618	26,861,290	-	179,319,794	627,534	8.4268663
141	141	2016	29.44	0	22817.21	0	295485.34	1245.44	16600	153.09	0	211820.49	0.000642	1995 Hourly	2016	-4.76	400	313.747968	0	2242.5616	135.98875					4,193,611	488,704	-	3,493,087	211,820	0.7995725
142	142	2016	46.41	0	31741.99	0	295483.91	1880.05	16600	313.65	0	296266.35	0.002618	1995 Hourly	2016	-3.05	400	2016.922908	0	26064.481	775.6253					11,022,548	770,406	-	9,955,875	296,266	4.9219709
143	143	2016	107.43	0	43930.86	0	295481.44	2969.73	16600	622.96	0	399763.46	0.006532	1995 Hourly	2016	-1.53	400	11648.76382	0	178762.34	2611.2549					29,550,270	1,783,338	-	27,367,169	399,763	19.398276
144	144	2016	229.41	0	55263.36	0	295482.75	4763.62	16600	996.74	0	510044.31	0.008986	1995 Hourly	2016	0	400	34220.53912	0	494977.65	4583.2582					59,401,452	3,808,206	-	55,083,201	510,044	42.805889
145	145	2016	486.04	0	67483.23	0	295482.44	7696.48	16600	1598.13	0	642716.16	0.006532	1995 Hourly	2016	1.53	400	52701.90045	0	704456.44	4198.222					116,557,955	8,068,264	-	107,846,974	642,716	50.273407
146	146	2016	1183.98	0	81553.04	0	295484.03	12000.09	16600	2393.26	0	784132.8	0.002618	1995 Hourly	2016	3.05	400	51454.35002	0	510975.03	2052.8597					215,615,829	19,654,068	-	195,177,629	784,133	31.416236
147	147	2016	3726.68	0	105154.4	0	295481.59	16728.75	16600	3779.33	0	1006596.75	0.000642	1995 Hourly	2016	4.76	400	39715.9741	0	255139.26	646.23511					460,282,663	61,862,888	-	397,413,179	1,006,597	10.739858
148	148	2016	1.44	0	10009.81	0	295393.72	594.3	16600	89.18	0	70862.14	0.000642	1996 Hourly	2016	-4.76	400	15.346368	0	573.09726	45.493494					987,441	23,904	-	892,675	70,862	0.3815406
149	149	2016	4.52	0	14217.09	0	295391.88	866.71	16600	401.62	0	110946.67	0.002618	1996 Hourly	2016	-3.05	400	196.433776	0	14948.434	290.45838					5,895,846	75,032	-	5,709,868	110,947	2.2690468
150	150	2016	10.65	0	18883.58	0	295390.94	1245.98	16600	330.75	0	162497.68	0.006532	1996 Hourly	2016	-1.53	400	1154.79228	0	40797.2	1061.4348					6,585,032	176,790	-	6,245,744	162,498	8.1387414
151	151	2016	15.32	0	25253.36	0	295389.16	1963.22	16600	519.33	0	222984.32	0.008986	1996 Hourly	2016	0	400	2285.247632	0	117849.84	2003.7371					13,592,124	254,312	-	13,114,827	222,984	17.641495
152	152	2016	32.55	0	33065.58	0	295389.97	3512.02	16600	876.5	0	290510.47	0.006532	1996 Hourly	2016	1.53	400	3529.43556	0	189310.3	1897.6144					29,812,821	540,330	-	28,981,981	290,510	22.940515
153	153	2016	40.65	0	43341.71	0	295388.22	6066.61	16600	1462.86	0	389607.45	0.002618	1996 Hourly	2016	3.05	400	1766.60022	0	165988.67	1019.9923					64,467,251	674,790	-	63,402,854	389,607	15.882385
154	154	2016	125.43	0	56466.18	0	295388.06	10755.86	16600	2576.75	0	529850.04	0.000642	1996 Hourly	2016	4.76	400	1336.732596	0	93410.505	340.16373					148,111,217	2,082,138	-	145,499,229	529,850	6.9052621
155	155	2016	9.67	0	14840.78	0	296243.53	828.73	16600	180.06	0	116058.19	0.000642	1997 Hourly	2016	-4.76	400	103.055124	0	1715.5722	74.509358					2,948,811	160,522	-	2,672,231	116,058	0.5320447
156	156	2016	11.57	0	19788.58	0	296242.19	1200.56	16600	285.46	0	165919.56	0.002618	1997 Hourly	2016	-3.05	400	502.818316	0	14788.684	434.37741					6,006,830	192,062	-	5,648,848	165,920	3.1430661
157	157	2016	41.02	0	28772.42	0	296243.31	1938.71	16600	588.88	0	233544.63	0.006532	1997 Hourly	2016	-1.53	400	4447.847824	0	110674.96	1525.5135					17,857,979	680,932	-	16,943,503	233,545	12.663654
158	158	2016	33.04	0	35508.53	0	296245.03	2861.72	16600	802.8	0	301709.6	0.008986	1997 Hourly	2016	0	400	4928.497504	0	256157.14	2711.1625					29,356,421	548,464	-	28,506,248	301,710	25.715416
159	159	2016	78.67	0	44833.13	0	296240.03	4882.74	16600	1361.47	0	397498.66	0.006532	1997 Hourly	2016	1.53	400	8530.282504	0	398706.5	2596.4612					62,742,382	1,305,922	-	61,038,962	397,499	31.894058
160	160	2016	201.37	0	57140.67	0	296245.62	8390.58	16600	2010.37	0	520479.6	0.002618	1997 Hourly	2016	3.05	400	8751.298556	0	300739.84	1362.6156					118,737,110	3,342,742	-	114,873,889	520,480	21.966538
161	161	2016	649.91	0	71210.14	0	296242.72	13273.94	16600	3248.6	0	664109.85	0.000642	1997 Hourly	2016	4.76	400	6926.220852	0	148515.95	426.35852					242,785,877	10,788,506	-	231,333,261	664,110	8.5218695
162	162	2016	3.2	0	9856.7	0	296283.31	595.64	16600	74.87	0	86229.85	0.000642	1998 Hourly	2016	-4.76	400	34.10304	0	473.77746	55.359564					877,321	53,120	-	737,971	86,230	0.3824009
163	163	2016	7.31	0	14287.89	0	296279.28	892.51	16600	166.83	0	128154.89	0.002618	1998 Hourly	2016	-3.05	400	317.683828	0	6240.3923	335.5095					2,633,150	121,346	-	2,383,649	128,155	2.3365912
164	164	2016	8.63	0	19481.43	0	296280.16	1327.42	16600	312.26	0	185543.65	0.006532	1998 Hourly	2016	-1.53	400	935.761256	0	39735.928	1211.9711					6,412,073	143,258	-	6,083,271	185,544	8.6707074
165	165	2016	25.51	0	26225.11	0	296280.56	2111.16	16600	554.21	0	249958.96	0.008986	1998 Hourly	2016	0	400	3805.265476	0	130604.48	2246.1312					15,207,643	423,466	-	14,534,218	249,959	18.970884
166	166	2016	34.99	0	34194.4	0	296281.56	3700.39	16600	980.25	0	337460.37	0.006532	1998 Hourly	2016	1.53	400	3794.007688	0	218946.5	2204.2911					34,437,355	580,834	-	33,519,061	337,460	24.170947
167	167	2016	46.89	0	43233.72	0	296281.72	6447.88	16600	1512.57	0	433309.15	0.002618	1998 Hourly	2016	3.05	400	2037.783132	0	171201.56	1134.4034					66,605,711	778,374	-	65,394,028	433,309	16.88055
168	168	2016	89.89	0	56491.7	0	296281.88	11630.74	16600	2464.57	0	577191.15	0.000642	1998 Hourly	2016	4.76	400	957.975708	0	89384.215	370.55672					141,297,114	1,492,174	-	139,227,749	577,191	7.4669351
169	169	2016	80.62	0	29187.8	0	295301.84	1617.49	16600	223.45	0	193665.05	0.000642	1999 Hourly	2016	-4.76	400	859.183464	0	4187.1329	124.33296					8,053,971	1,338,292	-	6,522,014	193,665	1.0384286
170	170	2016	150.4	0	38926.47	0	295300.88	2438.93	16600	424.29	0	273309.41	0.002618	1999 Hourly	2016	-3.05	400	6536.20352	0	43239.181	715.52404					19,286,061	2,496,640	-	16,516,112	273,309	6.3851187
171	171	2016	423.57	0	47509.13	0	295300.56	3716.14	16600	765.12	0	338529.39	0.006532	1999 Hourly	2016	-1.53	400	45928.20338	0	237439.41	2211.274					43,719,977	7,031,262	-	36,350,186	338,529	24.273826
172	172	2016	1335.66	0	59309.96	0	295301	6027.37	16600	1256.32	0	439271.17	0.008986	1999 Hourly	2016	0	400	199237.1966	0	669567.43	3947.2907					97,123,516	22,171,956	-	74,512,289	439,271	54.161947
173	173	2016	3076.3	0	73041.81	0	295302.53	10041.7	16600	2045.73	0	564783.3	0.006532	1999 Hourly	2016	1.53	400	333566.9006	0	976036.41	3689.1645					201,055,185	51,066,580	-	149,423,822	564,783	65.592384
174	174	2016	7291.3	0	82762.96	0	295301.44	14434.14	16600	2725.51	0	678520.91	0.002618	1999 Hourly	2016	3.05	400	316871.1484	0	590545.6	1776.3677					347,285,376	121,035,580	-	225,571,275	678,521	37.788579
175	175	2016	16705.58	0	97265.78	0	295302.94	18534.57	16600	3831.43	0	856054.67	0.000642	1999 Hourly	2016	4.76	400	178034.7072	0	239252.23	549.5871					650,835,710	277,312,628	-	372,667,027	856,055	11.899194
176	176	2016	1.64	0	8486.03	0	295650.09	514.09	16600	81.57	0	69821.01	0.000642	2000 Hourly	2016	-4.76	400	17.477808	0	444.39591	44.825088					789,250	27,224	-	692,205	69,821	0.3300458
177	177	2016	6.93	0	11665.76	0	295649.75	734.53	16600	205.97	0	96281.75	0.002618	2000 Hourly	2016	-3.05	400	301.169484	0	6290.5215	252.06562					2,614,116	115,038	-	2,402,797	96,282	1.9229995
178	178	2016	9.93	0	17354.84	0	295652.41	1129.62	16600	316.58	0	148910.31	0.006532	2000 Hourly	2016	-1.53	400	1076.721816	0	35888.083	972.68214					5,807,944	164,838	-	5,494,195	148,910	7.3786778
179	179	2016	13.69	0	22985.75	0	295648.44	1747.85	16600	464.02	0	199457.46	0.008986	2000 Hourly	2016	0	400	2042.104444	0	95843.308	1792.3247					11,092,559	227,254	-	10,665,848	199,457	15.70618
180	180	2016	61.03	0	29345.75	0	295652.44	2968.48	16600	1113.74	0	273396.01	0.006532	2000 Hourly	2016	1.53	400	6617.556136	0	213488.85	1785.8227					33,970,030	1,013,098	-	32,683,536	273,396	19.390111
181	181	2016	148.39	0	39717.2	0	295654.41	5515.9	16600	1579.64	0	374427.4	0.002618	2000 Hourly	2016	3.05	400	6448.851332	0	164250.38	980.25093					65,576,579	2,463,274	-	62,738,878	374,427	14.440626
182	182	2016	357.37	0	50852.62	0	295655.28	9631.32	16600	2500	0	504702.07	0.000642	2000 Hourly	2016	4.76	400	3808.563564	0	81618.455	324.01873					133,568,594	5,932,342	-	127,131,550	504,702	6.1833074
183	183	2016	5.1	0	10410.61	0	296597.41	625.48	16600	84.08	0	70476.19	0.000642	2001 Hourly	2016	-4.76	400	54.35172	0	561.95807	45.245714					1,030,460	84,660	-	875,324	70,476	0.4015582
184	184	2016	1.74	0	15425.25	0	296600.09	932.82	16600	152.24	0	110964.64	0.002618	2001 Hourly	2016	-3.05	400	75.618312	0	6147.9543	290.50543					2,488,189	28,884	-	2,348,340	110,965	2.4421228
185	185	2016	4.49	0	20513.41	0	296598.09	1314.63	16600	222.51	0	157109.03	0.006532	2001 Hourly	2016	-1.53	400	486.856088	0	29814.915	1026.2362					4,796,082	74,534	-	4,564,439	157,109	8.5871632
186	186	2016	10.99	0	28438.52	0	296599.59	2206.56	16600	457.06	0	221280.93	0.008986	2001 Hourly	2016	0	400	1639.351924	0	116801.02	1988.4304					13,401,825	182,434	-	12,998,110	221,281	19.828148
187	187	2016	31.02	0	33730.5	0	296598.84	3503.65	16600	838.37	0	287719.05	0.006532	2001 Hourly	2016	1.53	400	3363.535824	0	184716.07	1879.3808					29,081,290	514,932	-	28,278,639	287,719	22.885842
188	188	2016	48.24	0	44009.21	0	296596.84	6396.46	16600	1291.66	0	395780.6	0.002618	2001 Hourly	2016	3.05	400	2096.452512	0	148820.04	1036.1536					58,041,501	800,784	-	56,844,936	395,781	16.745932

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						
189	189	2016	155.19	0	53950.45	0	296600.44	11113.86	16600	2318.25	0	521499.26	0.000642	2001 Hourl	2016	4.76	400	1653.890868	0	80295.345	334.80252					128,168,284	2,576,154	-	125,070,631	521,499	7.1350981
190	190	2016	12.17	0	19094.92	0	295302.41	1111.48	16600	91.32	0	146142.69	0.000642	2002 Hourl	2016	-4.76	400	129.698124	0	1119.4863	93.823607					2,091,913	202,022	-	1,743,748	146,143	0.7135702
191	191	2016	29.01	0	28025.5	0	295300.69	1675.25	16600	209.28	0	219829.43	0.002618	2002 Hourl	2016	-3.05	400	1260.739788	0	15355.032	575.51345					6,566,572	481,566	-	5,865,177	219,829	4.3858045
192	192	2016	49.62	0	36198.92	0	295303.84	2442.97	16600	382.46	0	295462.13	0.006532	2002 Hourl	2016	-1.53	400	5380.356144	0	90433.182	1929.9586					14,963,793	823,692	-	13,844,639	295,462	15.95748
193	193	2016	85.55	0	49125.07	0	295301.41	4005.26	16600	698.42	0	404589.69	0.008986	2002 Hourl	2016	0	400	12761.28818	0	308309.04	3635.643					36,134,651	1,420,130	-	34,309,931	404,590	35.991266
194	194	2016	168.82	0	64218.29	0	295302.59	7091.36	16600	1266.94	0	529369.63	0.006532	2002 Hourl	2016	1.53	400	18305.35518	0	531448.23	3457.8424					84,692,502	2,802,412	-	81,360,720	529,370	46.320764
195	195	2016	330.31	0	77658.28	0	295298.09	11424.44	16600	1926.13	0	660583.1	0.002618	2002 Hourl	2016	3.05	400	14354.87623	0	391600.29	1729.4066					155,723,672	5,483,146	-	149,579,943	660,583	29.909184
196	196	2016	923.2	0	99432.41	0	295303.22	16829.87	16600	3273.72	0	842387.49	0.000642	2002 Hourl	2016	4.76	400	9838.72704	0	208979.9	540.81277					341,681,377	15,325,120	-	325,513,869	842,387	10.804777
197	197	2016	0.77	0	9502.8	0	295949.62	574.07	16600	179.81	0	79809.15	0.000642	2003 Hourl	2016	-4.76	400	8.206044	0	1096.9844	51.237474					1,801,290	12,782	-	1,708,698	79,809	0.3685529
198	198	2016	6.28	0	13151.55	0	295949.38	827.32	16600	218.35	0	117498.28	0.002618	2003 Hourl	2016	-3.05	400	272.921264	0	7517.956	307.6105					3,093,387	104,248	-	2,871,641	117,498	2.1659238
199	199	2016	4.3	0	18002.17	0	295949	1213.34	16600	309.48	0	164235.51	0.006532	2003 Hourl	2016	-1.53	400	466.25416	0	36391.807	1072.7864					5,806,927	71,380	-	5,571,312	164,236	7.9255369
200	200	2016	23.7	0	25891.03	0	295948.44	2041.32	16600	564.95	0	234085.9	0.008986	2003 Hourl	2016	0	400	3535.27212	0	131439.46	2103.4959					15,254,643	393,420	-	14,627,137	234,086	18.343302
201	201	2016	82.03	0	33298.57	0	295952.03	3537.12	16600	946.07	0	307961.6	0.006532	2003 Hourl	2016	1.53	400	8894.611336	0	205776.15	2011.6052					33,172,438	1,361,698	-	31,502,778	307,962	23.104468
202	202	2016	226.61	0	41114.62	0	295950.41	5917.42	16600	1640.27	0	407171.59	0.002618	2003 Hourl	2016	3.05	400	9848.198668	0	176555.51	1065.9752					71,607,975	3,761,726	-	67,439,078	407,172	15.491806
203	203	2016	830.73	0	52665.15	0	295951	10650.6	16600	2589.59	0	555722.55	0.000642	2003 Hourl	2016	4.76	400	8853.255756	0	87556.696	356.77388					150,726,986	13,790,118	-	136,381,146	555,723	6.8376852
204	204	2016	0.72	0	5221.62	0	295298.84	330.84	16600	60.85	0	41897.83	0.000642	2004 Hourl	2016	-4.76	400	7.673184	0	203.98624	26.898407					371,585	11,952	-	317,736	41,898	0.2123993
205	205	2016	2.94	0	7185.89	0	295301.16	467.97	16600	155.96	0	60620.57	0.002618	2004 Hourl	2016	-3.05	400	127.768872	0	2934.0225	158.70465					1,230,136	48,804	-	1,120,711	60,621	1.2251455
206	206	2016	6.63	0	10007.15	0	295301.56	687.96	16600	220.89	0	88010.55	0.006532	2004 Hourl	2016	-1.53	400	718.898856	0	14438.851	574.88491					2,408,548	110,058	-	2,210,479	88,011	4.4937547
207	207	2016	9.33	0	13777.6	0	295300.81	1080.78	16600	451.97	0	124836.02	0.008986	2004 Hourl	2016	0	400	1391.733708	0	55956.378	1121.7765					6,506,776	154,878	-	6,227,062	124,836	9.7118891
208	208	2016	42.14	0	18359.63	0	295302.09	1884.11	16600	809.14	0	179586.25	0.006532	2004 Hourl	2016	1.53	400	4569.290768	0	97036.198	1173.0574					15,734,621	699,524	-	14,855,511	179,586	12.307007
209	209	2016	151.76	0	23733.05	0	295303.09	3343.36	16600	1275.47	0	231621.84	0.002618	2004 Hourl	2016	3.05	400	6595.307488	0	79248.937	606.38598					33,021,631	2,519,216	-	30,270,793	231,622	8.7529165
210	210	2016	443.53	0	30798.02	0	295298.41	6362.33	16600	1879.63	0	338542.29	0.000642	2004 Hourl	2016	4.76	400	4726.787916	0	37164.662	217.34415					65,590,023	7,362,598	-	57,888,882	338,542	4.0846159
211	211	2016	24.49	0	19646.79	0	296224.16	1130.03	16600	143.45	0	135694.82	0.000642	2005 Hourl	2016	-4.76	400	260.994828	0	1809.3692	87.116074					3,360,561	406,534	-	2,818,332	135,695	0.7254793
212	212	2016	85.73	0	28150.14	0	296225.94	1738.52	16600	396.73	0	201174.77	0.002618	2005 Hourl	2016	-3.05	400	3725.722924	0	29237.837	526.67555					12,792,298	1,423,118	-	11,168,005	201,175	4.5514454
213	213	2016	44.74	0	35600.81	0	296222.81	2397.49	16600	440.22	0	254225.67	0.006532	2005 Hourl	2016	-1.53	400	4851.211888	0	102370.74	1660.6021					16,669,098	742,684	-	15,672,189	254,226	15.660405
214	214	2016	114.95	0	45783.95	0	296223.88	3867.47	16600	770.41	0	340916.14	0.008986	2005 Hourl	2016	0	400	17146.81562	0	316957.9	3063.4724					37,521,499	1,908,170	-	35,272,413	340,916	34.753085
215	215	2016	335.12	0	58635.44	0	296225.97	6834.79	16600	1369.62	0	455224.73	0.006532	2005 Hourl	2016	1.53	400	36337.46374	0	524573.63	2973.5279					86,326,488	5,562,992	-	80,308,271	455,225	44.644848
216	216	2016	690.59	0	72329.65	0	296224.62	10685.39	16600	2029.55	0	593715.99	0.002618	2005 Hourl	2016	3.05	400	30012.21269	0	384313.61	1554.3485					158,854,151	11,463,794	-	146,796,641	593,716	27.974351
217	217	2016	2180.05	0	93608.06	0	296229.88	16399.8	16600	3380.21	0	792255.32	0.000642	2005 Hourl	2016	4.76	400	23233.22886	0	203138.37	508.62792					353,395,986	36,188,830	-	316,414,900	792,255	10.528672
218	218	2016	23.13	0	17516.62	0	295578.34	976.34	16600	130.37	0	138264.82	0.000642	2006 Hourl	2016	-4.76	400	246.501036	0	1466.098	88.766014					2,805,865	383,958	-	2,283,642	138,265	0.6268103
219	219	2016	24.92	0	22988.79	0	295581.88	1370.01	16600	204.41	0	180985.29	0.002618	2006 Hourl	2016	-3.05	400	1082.993296	0	12302.345	473.81949					5,293,796	413,672	-	4,699,139	180,985	3.5866862
220	220	2016	41.06	0	31674.21	0	295578.91	2131.4	16600	471.43	0	248249.22	0.006532	2006 Hourl	2016	-1.53	400	4452.185072	0	97536.953	1621.5639					15,862,018	681,596	-	14,932,173	248,249	13.922305
221	221	2016	62.55	0	39927.28	0	295584.69	3353.85	16600	734.99	0	320514.72	0.008986	2006 Hourl	2016	0	400	9330.43338	0	263704.52	2880.1453					30,704,996	1,038,330	-	29,346,152	320,515	30.137696
222	222	2016	129.28	0	52059.22	0	295581.22	6044.32	16600	1324.7	0	431537.2	0.006532	2006 Hourl	2016	1.53	400	14017.98554	0	450465.33	2818.801					71,540,434	2,146,048	-	68,962,849	431,537	39.481498
223	223	2016	377.97	0	64632.83	0	295579.44	10100.72	16600	2264.12	0	540321.72	0.002618	2006 Hourl	2016	3.05	400	16426.12264	0	383108.91	1414.5623					153,151,107	6,274,302	-	146,336,483	540,322	26.443685
224	224	2016	863.52	0	78715.57	0	295582.5	14936.76	16600	3410.27	0	685452.89	0.000642	2006 Hourl	2016	4.76	400	9202.705344	0	172339.34	440.06076					283,461,232	14,334,432	-	268,441,347	685,453	9.5893999
225	225	2016	66.48	0	40375.2	0	296275.09	2055.14	16600	201.95	0	266026.11	0.000642	2007 Hourl	2016	-4.76	400	708.490656	0	5234.7214	170.78876					9,523,366	1,103,568	-	8,153,772	266,026	1.3193999
226	226	2016	118.12	0	51417.52	0	296277.94	2939.36	16600	383.75	0	357897.26	0.002618	2007 Hourl	2016	-3.05	400	5133.353456	0	51656.997	936.97503					22,050,163	1,960,792	-	19,731,473	357,897	7.6952445
227	227	2016	203.23	0	64351.25	0	296272.75	4344.81	16600	645.7	0	460324.82	0.006532	2007 Hourl	2016	-1.53	400	22036.47278	0	271415.07	3006.8417					45,385,545	3,373,618	-	41,551,602	460,325	28.380299
228	228	2016	652.58	0	80480.48	0	296274.5	7054.78	16600	1122.02	0	583742.37	0.008986	2007 Hourl	2016	0	400	97343.79241	0	811442.16	5245.5089					101,717,279	10,832,828	-	90,300,708	583,742	63.394253
229	229	2016	1748.26	0	95472.02	0	296277.06	11448.19	16600	1811.71	0	713773.76	0.006532	2007 Hourl	2016	1.53	400	189565.9297	0	1129824.5	4662.3702					202,702,503	29,021,116	-	172,967,613	713,774	74.779577
230	230	2016	4318.78	0	117570.52	0	296275.19	16467.73	16600	2782.2	0	896750.25	0.002618	2007 Hourl	2016	3.05	400	187688.9963	0	856360.11	2347.6922					399,693,199	71,691,748	-	327,104,701	896,750	43.112517
231	231	2016	13575.39	0	137762.53	0	296277.22	19276.27	16600	4016.03	0	1105532.75	0.000642	2007 Hourl	2016	4.76	400	144675.6463	0	355191.93	709.75203					779,715,460	225,351,474	-	553,258,453	1,105,533	12.375365
232	232	2016	10.49	0	11560.06	0	295693.59	707.88	16600	117.21	0	89995.43	0.000642	2008 Hourl	2016	-4.76	400	111.794028	0	869.88087	57.777066					1,619,084	174,134	-	1,354,955	89,995	0.454459
233	233	2016	4.74	0	17818.97	0	295695.97	1093.68	16600	179	0	143387.56	0.002618	2008 Hourl	2016	-3.05	400	205.994712	0	8350.3614	375.38863					3,411,667	78,684	-	3,189,596	143,388	2.8632542
234	234	2016	21.36	0	23442.21	0	295693.22	1607.67	16600	389.85	0	190009.52	0.006532	2008 Hourl	2016	-1.53	400	2316.090432	0	59695.592	1241.1422					9,683,531	354,576	-	9,138,946	190,010	10.5013
235	235	2016	16.95	0	31988.51	0	295695.03	2473.36	16600	487.63	0	259967.68	0.008986	2008 Hourl	2016	0	400	2528.39082	0	140168.63	2336.0696					16,139,895	281,370	-	15,598,557	259,968	22.225613
236	236	2016	57.67	0	40629.46	0	295697.31	4331.62	16600	1000.5	0	340642.46	0.006532	2008 Hourl	2016	1.53	400	6253.227304	0	265524.33	2225.0765					41,947,739	957,322	-	40,649,775	340,642	28.294142
237	237	2016	77.86	0	52797.28	0	295695.03	7477.74	16600	1554.88	0	449234.13	0.002618	2008 Hourl	2016	3.05	400	3383.702168	0	214920.61	1176.095					83,835,145	1,292,476	-	82,093,435	449,234	19.576723
238	238	2016	144.52	0	67171.81	0	295694.94	12552	16600	2476.55	0	618405.02	0.000642	2008 Hourl	2016	4.76	400	1540.178544	0	106799.49	397.01602					169,371,783	2,399,032	-	166,354,346	618,405	8.058384
239	239	2016	4.47	0	6032.7	0	296140.22	400.92	16600	73.36	0	48715.1	0.000642	2009 Hourl	2016	-4.76	400	47.637684	0	284.1228	31.275094					565,476	74,202	-	442,559	48,715	0.2573906
240	240	2016	3.1	0	8955.33	0	296141.34	588.48	16600	137.75	0	74310.3	0.002618	2009 Hourl	2016	-3.05	400	134.72228	0	3229.5562	194.54437					1,359,367	51,460	-	1,233,597	74,310	1.5406406
241	241	2016	20.2	0	12393.92	0	296140	861.12	16600	305.51	0	104302.47	0.006532	2009 Hourl	2016	-1.53	400	2190.31024	0	24733.199	681.30373					4,226,089	335,320	-	3,786,466	104,302	5.6248358
242	242	2016	30.73	0	17772.88	0	296141.72	1419.48	16600	453.26	0	149889.2	0.008986	2009 Hourl	2016	0	400	4583.920348	0	72388.84	1346.9044					8,715,743	510,118	-	8,055,736	149,889	12.755447
243	243	2016	114.28	0	23727.61	0	296140.97	2524.48	16600	760.92	0	205894.29	0.006532	2009 Hourl	2016	1.53	400	12391.51754	0	117934.04	1344.9015					20,157,755	1,897,048	-	18,054,813	205,894	16.489903
244	244	2016	337.63	0	29816.11	0	296143.66	4431.86	16600	1223.23	0	281283.7	0.002618	2009 Hourl	2016	3.05	400	14672.99464	0	95483.592	736.40073					42,357,902	5,604,658	-	36,471,960	281,284	11.602609
245	245	2016	1104.29	0	36447.31	0	296142.97	7944.86	16600	2023.26	0	372212.31	0.000642	2009 Hourl	2016	4.76	400	11768.63939	0	47342.611	238.9603					92,445,811	18,331,214	-	73,742,384	372,212	5.1006001

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**					
1	1	2016	1.05	0	7250.71	0	295300.59	464.04	16600	68.51	0	74949.62	0.000642	1975 Hourl	2016	-4.76	400	11.19006	0	318.91102	48.117656	**310**	**31,718**	**-**	**4,816**	589,126	17,430	-	496,746	74,950
2	2	2016	7.43	0	11201.37	0	295300.91	739.23	16600	197.33	0	112902.99	0.002618	1975 Hourl	2016	-3.05	400	322.898884	0	5786.7391	295.58003					2,446,607	123,338	-	2,210,366	112,903
3	3	2016	8.52	0	14617.37	0	295304.84	1014.76	16600	275.47	0	154815.49	0.006532	1975 Hourl	2016	-1.53	400	923.833824	0	26302.058	1011.2548					4,322,894	141,432	-	4,026,647	154,815
4	4	2016	14.62	0	19462.42	0	295302.38	1549.92	16600	461.54	0	209923.79	0.008986	1975 Hourl	2016	0	400	2180.830312	0	80718.41	1886.3752					9,435,301	242,692	-	8,982,685	209,924
5	5	2016	35.91	0	27545.13	0	295297.47	3033.07	16600	870.95	0	300754.17	0.006532	1975 Hourl	2016	1.53	400	3893.764392	0	156705.5	1964.5262					24,887,291	596,106	-	23,990,431	300,754
6	6	2016	38.65	0	35130.63	0	295303.72	5235.11	16600	1308.88	0	397449.42	0.002618	1975 Hourl	2016	3.05	400	1679.68262	0	120380.3	1040.5226					47,020,818	641,590	-	45,981,779	397,449
7	7	2016	73.32	0	45846.67	0	295299.59	9881	16600	2179.71	0	537039.5	0.000642	1975 Hourl	2016	4.76	400	781.385904	0	64156.63	344.77936					101,686,597	1,217,112	-	99,932,445	537,040
8	8	2016	3.8	0	8508.8	0	296220.66	455.7	16600	139.32	0	107825.69	0.000642	1976 Hourl	2016	-4.76	400	40.49736	0	761.05634	69.224093					1,356,352	63,080	-	1,185,446	107,826
9	9	2016	0.83	0	10714.34	0	296217.66	636.11	16600	259.04	0	141998.75	0.002618	1976 Hourl	2016	-3.05	400	36.070804	0	7266.1088	371.75273					2,931,219	13,778	-	2,775,443	141,999
10	10	2016	4.71	0	14407.55	0	296223.19	972.07	16600	494.19	0	184764.38	0.006532	1976 Hourl	2016	-1.53	400	510.710952	0	46508.279	1206.8809					7,383,018	78,186	-	7,120,067	184,764
11	11	2016	8.72	0	19850.89	0	296220.44	1542.81	16600	950.54	0	254222.37	0.008986	1976 Hourl	2016	0	400	1300.741472	0	169557.42	2284.4422					19,268,039	144,752	-	18,869,065	254,222
12	12	2016	11.89	0	24655.56	0	296215.75	2548.19	16600	1112.7	0	332944.12	0.006532	1976 Hourl	2016	1.53	400	1289.246968	0	179200.47	2174.791					27,964,560	197,374	-	27,434,242	332,944
13	13	2016	39.92	0	30680.69	0	296018.47	4318.43	16600	1643.18	0	421669.38	0.002618	1976 Hourl	2016	3.05	400	1734.875296	0	131983.58	1103.9304					51,498,238	662,672	-	50,413,896	421,669
14	14	2016	183.96	0	40756.54	0	296216.97	7986.12	16600	2781.67	0	582326.73	0.000642	1976 Hourl	2016	4.76	400	1960.498512	0	72784.339	373.85376					117,007,307	3,053,736	-	113,371,245	582,327
15	15	2016	7.14	0	14048.53	0	295305.47	846.52	16600	86.92	0	161699.96	0.000642	1977 Hourl	2016	-4.76	400	76.092408	0	783.94506	103.81137					1,501,322	118,524	-	1,221,098	161,700
16	16	2016	31.56	0	21159.66	0	295302.84	1286.73	16600	218.61	0	245347.03	0.002618	1977 Hourl	2016	-3.05	400	1371.559728	0	12110.117	642.31852					5,394,956	523,896	-	4,625,713	245,347
17	17	2016	64.12	0	30570.83	0	295302.88	1980.79	16600	350.21	0	349820.95	0.006532	1977 Hourl	2016	-1.53	400	6952.608544	0	69932.966	2285.0304					12,120,423	1,064,392	-	10,706,210	349,821
18	18	2016	193.64	0	40921.2	0	295303.72	3268.24	16600	652.53	0	469506.3	0.008986	1977 Hourl	2016	0	400	28884.81406	0	239946.96	4218.9836					30,386,241	3,214,424	-	26,702,311	469,506
19	19	2016	604.4	0	54480.63	0	295301.09	5883	16600	1112.22	0	647462.25	0.006532	1977 Hourl	2016	1.53	400	65535.81728	0	395802.92	4229.2234					71,274,949	10,033,040	-	60,594,446	647,462
20	20	2016	1936.93	0	68604.32	0	295302.03	9848.02	16600	1675.65	0	821896.1	0.002618	1977 Hourl	2016	3.05	400	84176.65348	0	300956.98	2151.724					147,931,763	32,153,038	-	114,956,829	821,896
21	21	2016	6651.63	0	87375.27	0	295300.09	14631.68	16600	2666.57	0	1105748.8	0.000642	1977 Hourl	2016	4.76	400	70887.75124	0	149581.04	709.89073					344,515,081	110,417,058	-	232,992,274	1,105,749
22	22	2016	6.84	0	7367.64	0	295303.28	459.07	16600	102.67	0	91876.44	0.000642	1978 Hourl	2016	-4.76	400	72.895248	0	485.63165	58.984674					961,856	113,544	-	756,436	91,876
23	23	2016	10.72	0	10669.04	0	295304.81	680.82	16600	241.4	0	133502.63	0.002618	1978 Hourl	2016	-3.05	400	465.878336	0	6742.6754	349.50989					2,886,961	177,952	-	2,575,506	133,503
24	24	2016	25.78	0	15880.82	0	295297.44	1100.23	16600	373.97	0	203321.86	0.006532	1978 Hourl	2016	-1.53	400	2795.356336	0	38793.223	1328.0984					6,570,220	427,948	-	5,938,950	203,322
25	25	2016	30.54	0	21360.97	0	295305.03	1737.68	16600	556.9	0	268631.12	0.008986	1978 Hourl	2016	0	400	4555.578504	0	106896.77	2413.9192					12,671,519	506,964	-	11,895,924	268,631
26	26	2016	162.63	0	27909.03	0	295301.81	3131.28	16600	1017.23	0	365194.5	0.006532	1978 Hourl	2016	1.53	400	17634.16606	0	185442.84	2385.4505					31,454,755	2,699,658	-	28,389,903	365,195
27	27	2016	468.81	0	37374.29	0	295299.69	5764.42	16600	1605.54	0	492927.73	0.002618	1978 Hourl	2016	3.05	400	20373.92003	0	157095.49	1290.4848					68,281,091	7,782,246	-	60,005,918	492,928
28	28	2016	1402.47	0	46608.42	0	295305.53	10248.17	16600	2425.6	0	657423.61	0.000642	1978 Hourl	2016	4.76	400	14946.40328	0	72580.272	422.06596					136,991,809	23,281,002	-	113,053,384	657,424
29	29	2016	1.76	0	5291.9	0	295929.81	337.11	16600	83.96	0	76622.71	0.000642	1979 Hourl	2016	-4.76	400	18.756672	0	285.24569	49.19178					550,147	29,216	-	444,308	76,623
30	30	2016	7.23	0	8166.72	0	295927.66	544.71	16600	210.5	0	112287.96	0.002618	1979 Hourl	2016	-3.05	400	314.207124	0	4500.5896	293.96988					1,951,401	120,018	-	1,719,095	112,288
31	31	2016	8.43	0	12079.81	0	295927.38	826.21	16600	349.35	0	165715.68	0.006532	1979 Hourl	2016	-1.53	400	914.075016	0	27565.573	1082.4548					4,525,735	139,938	-	4,220,082	165,716
32	32	2016	11.41	0	16652.69	0	295929.91	1368.16	16600	559.19	0	234082	0.008986	1979 Hourl	2016	0	400	1702.002316	0	83677.791	2103.4609					9,735,506	189,406	-	9,312,018	234,082
33	33	2016	24.35	0	22439.41	0	295932.41	2344.93	16600	995.88	0	316736.49	0.006532	1979 Hourl	2016	1.53	400	2640.29972	0	145970.34	2068.9228					23,067,906	404,210	-	22,346,960	316,736
34	34	2016	62.62	0	29226.6	0	295930.09	4217.92	16600	1582.84	0	426766.56	0.002618	1979 Hourl	2016	3.05	400	2721.390056	0	121111.38	1117.2749					47,727,290	1,039,492	-	46,261,032	426,767
35	35	2016	207.12	0	37952.37	0	295931.56	7954.71	16600	2469.41	0	576618.17	0.000642	1979 Hourl	2016	4.76	400	2207.319264	0	60168.216	370.18887					97,734,772	3,438,192	-	93,719,962	576,618
36	36	2016	22.03	0	16035.18	0	295479.31	905.78	16600	126.93	0	173867.81	0.000642	1980 Hourl	2016	-4.76	400	234.778116	0	1306.6917	111.62313					2,574,911	365,698	-	2,035,345	173,868
37	37	2016	28.93	0	22606	0	295482.19	1359.28	16600	222.59	0	238329.29	0.002618	1980 Hourl	2016	-3.05	400	1257.263084	0	13173.434	623.94608					5,750,437	480,238	-	5,031,870	238,329
38	38	2016	43.39	0	29889.91	0	295480.69	2054.67	16600	419.92	0	319092.53	0.006532	1980 Hourl	2016	-1.53	400	4704.829768	0	81985.555	2084.3124					13,590,738	720,274	-	12,551,371	319,093
39	39	2016	106.64	0	38234.65	0	295483.25	3236.04	16600	742.85	0	411823.55	0.008986	1980 Hourl	2016	0	400	15907.23286	0	255225.85	3700.6464					30,584,657	1,770,224	-	28,402,610	411,824
40	40	2016	310.65	0	51859.28	0	295480.59	6323.07	16600	1434.94	0	556533.95	0.006532	1980 Hourl	2016	1.53	400	33684.15228	0	486078.49	3635.2798					80,128,279	5,156,790	-	74,414,955	556,534
41	41	2016	684.48	0	62628.16	0	295482.44	10110.29	16600	2065.24	0	696730.9	0.002618	1980 Hourl	2016	3.05	400	29746.67942	0	338617.83	1824.0415					141,401,280	11,362,368	-	129,342,181	696,731
42	42	2016	1816.7	0	80571.17	0	295482.25	15738.42	16600	3341.49	0	910917.46	0.000642	1980 Hourl	2016	4.76	400	19360.93524	0	172844.22	584.80901					300,295,896	30,157,220	-	269,227,759	910,917
43	43	2016	4.45	0	4829.34	0	296013.88	323.03	16600	89.3	0	55673.43	0.000642	1981 Hourl	2016	-4.76	400	47.42454	0	276.86896	35.742342					560,803	73,870	-	431,260	55,673
44	44	2016	4.98	0	7661.62	0	296013.03	511.93	16600	210.14	0	81457.08	0.002618	1981 Hourl	2016	-3.05	400	216.424824	0	4215.0136	213.25464					1,774,138	82,668	-	1,610,013	81,457
45	45	2016	15.42	0	10100.06	0	296011.75	710.78	16600	305.5	0	114740.14	0.006532	1981 Hourl	2016	-1.53	400	1672.009104	0	20154.932	749.48259					3,456,280	255,972	-	3,085,568	114,740
46	46	2016	17.54	0	14980.75	0	296012.22	1180.37	16600	517.64	0	167154.82	0.008986	1981 Hourl	2016	0	400	2616.399704	0	69683.154	1502.0532					8,212,954	291,164	-	7,754,635	167,155
47	47	2016	42.74	0	20320.05	0	296013.44	2136.86	16600	733.72	0	239537.28	0.006532	1981 Hourl	2016	1.53	400	4634.349488	0	97387.071	1564.6575					15,858,248	709,484	-	14,909,227	239,537
48	48	2016	123.87	0	26050.32	0	296011.53	3895.35	16600	1191.98	0	316993.92	0.002618	1981 Hourl	2016	3.05	400	5383.241556	0	81292.723	829.89008					33,424,696	2,056,242	-	31,051,460	316,994
49	49	2016	410.65	0	33319.1	0	294904.69	7561.28	16600	2142.32	0	432068.74	0.000642	1981 Hourl	2016	4.76	400	4376.37918	0	45826.072	277.38813					78,629,033	6,816,790	-	71,380,174	432,069
50	50	2016	3.3	0	6170.66	0	296814.22	393.32	16600	65.68	0	72704.78	0.000642	1982 Hourl	2016	-4.76	400	35.16876	0	260.19551	46.676469					532,774	54,780	-	405,289	72,705
51	51	2016	6.77	0	9900.76	0	296815.06	625.83	16600	149.79	0	107765.56	0.002618	1982 Hourl	2016	-3.05	400	294.216076	0	3882.5852	282.13024					1,703,182	112,382	-	1,483,035	107,766
52	52	2016	13.99	0	13594.08	0	296817.69	890.72	16600	243.42	0	155657.66	0.006532	1982 Hourl	2016	-1.53	400	1516.952488	0	21614.851	1016.7558					3,696,963	232,234	-	3,309,071	155,658
53	53	2016	30.45	0	19322.7	0	296814.75	1500.03	16600	455.95	0	222786.19	0.008986	1982 Hourl	2016	0	400	4542.15342	0	79168.323	2001.9567					9,538,441	505,470	-	8,810,185	222,786
54	54	2016	111.3	0	24266.47	0	296813.97	2517.91	16600	840.17	0	290786.22	0.006532	1982 Hourl	2016	1.53	400	12068.39256	0	133174.16	1899.4156					22,526,326	1,847,580	-	20,387,960	290,786
55	55	2016	457.05	0	32475.8	0	296813.78	4677.42	16600	1250.3	0	407617.57	0.002618	1982 Hourl	2016	3.05	400	19862.84454	0	106302.56	1067.1428					48,599,140	7,587,030	-	40,604,493	407,618
56	56	2016	1682.38	0	41085.26	0	296814.25	8821.18	16600	2093.86	0	540099.29	0.000642	1982 Hourl	2016	4.76	400	17929.46014	0	55229.194	346.74374					114,494,390	27,927,508	-	86,026,783	540,099
57	57	2016	76.72	0	30964.82	0	295752.91	1642.37	16600	192.78	0	266994.75	0.000642	1983 Hourl	2016	-4.76	400	817.620384	0	3832.3535	171.41063					7,509,945	1,273,552	-	5,969,398	266,995
58	58	2016	214.91	0	44173	0	295759.59	2745.04	16600	486.65	0	383958.26	0.002618	1983 Hourl	2016	-3.05	400	9339.730708	0	56278.597	1005.2027					25,448,255	3,567,506	-	21,496,790	383,958
59	59	2016	668.16	0	54721.76	0	295760.69	4507.85	16600	837.53	0	478822.28	0.006532	1983 Hourl	2016	-1.53	400	72449.39059	0	299368.85	3127.6671					57,401,394	11,091,456	-	45,831,116	478,822
60	60	2016	2059.84	0	64615.9	0	295759.31	7167.85	16600	1269.79	0	581456.11	0.008986	1983 Hourl	2016	0	400	307261.3892	0	737288.93	5224.9646					116,823,424	34,193,344	-	82,048,624	581,456
61	61	2016	4874.6	0	78885.8	0	295761.44	11784.92	16600	2049.69	0	732981.22	0.006532	1983 Hourl	2016	1.53	400	528558.7275	0	1056168.5	4787.8333					243,342,777	80,918,360	-	161,691,435	732,981
62	62	2016	13124.34	0	89612.53	0	295755.91	16197.77	16600	2801.4	0	897725.94	0.002618	1983 Hourl	2016	3.05	400	570368.0672	0	657224.14	2350.2465					469,802,311	217,864,044	-	251,040,542	897,726
63	63	2016	27342.71	0	103994.27	0	295757.06	19277.57	16600	3587.41	0	1113534.9	0.000642	1983 Hourl	2016	4.76	400	291396.729	0	239510.99	714.88943					828,072,605	453,888,986	-	373,070,084	1,113,535
64	64	2016	3.55	0	6523.88	0	295299.5	404.55	16600	82.07	0	71165.07	0.000642	1984 Hourl	2016	-4.76	400	37.83306	0	343.73632	45.687975					665,510	58,930	-	535,415	71,165
65	65	2016	4.05	0	9219.97	0	295300.22	592.4	16600	232.41	0	100725.21	0.002618	1984 Hourl	2016	-3.05	400	176.00814	0	5609.885	263.6986					2,310,768	67,230	-	2,142,813	100,725
66	66	2016	9.46	0	13015.18	0	295300.97	884.52	16600	383.38	0	145708.02	0.006532	1984 Hourl	2016	-1.53	400	1025.759152	0	32593.11	951.76479					5,292,504	157,036	-	4,989,760	145,708
67	67	2016	11.92	0	15856.26	0	295302.31	1266.62	16600	466.16	0	182737.32	0.008986	1984 Hourl	2016	0	400	1778.077792	0	66420.506	1642.0776					7,772,163	197,872	-	7,391,554	182,737
68	68	2016	66.24	0	21410.84	0	295302.62	2233.77	16600	887.3	0	256112.2	0.006532	1984 Hourl	2016	1.53	400	7182.482688	0	124093.88	1672.9249					20,353,535	1,099,584	-	18,997,838	256,112
69	69	2016	157.99	0	29057.3	0	295299.34	4173.57	16600	1488.98	0	353318.27	0.002618	1984 Hourl	2016	3.05	400	6866.055812	0	113269.7	924.98723					46,241,691	2,622,634	-	43,265,739	353,318
70	70	2016	531.64	0	38214.5	0	295302.25	8083.13	16600	2444.23	0	481858.14	0.000642	1984 Hourl	2016	4.76	400	5665.793808	0	59966.028	309.35293					102,712,109	8,825,224	-	93,405,027	481,858
71	71	2016	1.66	0	4368.77	0	295932.41	281.44	16600	126.56	0	40116.05	0.000642	1985 Hourl	2016	-4.76	400	17.690952	0	354.9692	25.754504					620,584	27,556	-	552,912	40,116
72	72	2016	10.68	0	5694.52	0	295931.59	386.97	16600	151.88	0	65260.37	0.002618	1985 Hourl	2016	-3.05	400	464.139984	0	2264.2655	170.85165					1,107,432	177,288	-	864,884	65,260
73	73	2016	10.03	0	7794.87	0	295931.62	557.88	16600	259.08	0	89261.82	0.006532	1985 Hourl	2016	-1.53	400	1087.564936	0	13191.341	583.05821					2,275,255	166,498	-	2,019,495	89,262
74	74	2016	8.63	0	11073.75	0	295930.34	890.86	16600	491.64	0	128054.33	0.008986	1985 Hourl	2016	0	400	1287.316388	0	48922.466	1150.6962					5,715,611	143,258	-	5,444,298	128,054
75	75	2016	25.48	0	15137.86	0	295930.56	1575.19	16600	766.75	0	181094.92	0.006532	1985 Hourl	2016	1.53	400	2762.826976	0	75816.625	1182.912					12,211,017	422,968	-	11,606,954	181,095
76	76	2016	54.99	0	21510.13	0	295929.53	3041.84	16600	1457.46	0	254336.13	0.002618	1985 Hourl	2016	3.05	400	2389.799412	0	82074.703	665.85199					32,517,324	912,834	-	31,350,154	254,336
77	77	2016	46.2	0	27260.42	0	295930.25	5662.78	16600	2049.26	0	353693.05	0.000642	1985 Hourl	2016	4.76	400	492.36264	0	35864.488	227.07094					56,984,301	766,920	-	55,863,688	353,693
78	78	2016	4.13	0	12166	0	295849.72	651.44	16600	208.24	0	126252.83	0.000642	1986 Hourl	2016	-4.76	400	44.014236	0	1626.4735	81.054317					2,728,259	68,558	-	2,533,448	126,253
79	79	2016	9.34	0	17903.95	0	295845.41	1031.56	16600	366.42	0	188152.57	0.002618	1986 Hourl	2016	-3.05	400	405.905192	0	17175.037	492.58343					6,903,562	155,044	-	6,560,365	188,153
80	80	2016	4.16	0	21643.59	0	295845.97	1438.81	16600	497.4	0	234149.09	0.006532	1986 Hourl	2016	-1.53	400	451.073792	0	70320.388	1529.4619					11,068,727	69,056	-	10,765,522	234,149
81	81	2016	19.15	0	30741.23	0	295850.59	2519.23	16600	1009.78	0	321221.72	0.008986	1986 Hourl	2016	0	400	2856.55954	0	278942.33	2886.4984					31,680,991	317,890	-	31,041,879	321,222
82	82	2016	25.17	0	38940.24	0	295843.47	4186.11	16600	1633.03	0	425393	0.006532	1986 Hourl	2016	1.53	400	2729.213304	0	415373.67	2778.6671					64,433,795	417,822	-	63,590,580	425,393
83	83	2016	73.37	0	49475.81	0	295843	7120.36	16600	2246.32	0	558367.93	0.002618	1986 Hourl	2016	3.05	400	3188.572156	0	290960.6	1461.8072					112,914,811	1,217,942	-	111,138,502	558,368
84	84	2016	86.06	0	62701.35	0	295846.31	11653.86	16600	3643	0	702699.95	0.000642	1986 Hourl	2016	4.76	400	917.158632	0	146646.29	451.13337					230,552,314	1,428,596	-	228,421,018	702,700
85	85	2016	5.46	0	10164.02	0	296563	615.89	16600	255.88	0	107854.53	0.000642	1987 Hourl	2016	-4.76	400	58.188312	0	1669.694	69.242608					2,799,260	90,636	-	2,600,769	107,855
86	86	2016	8.85	0	14605.39	0	296560.25	897.77	16600	196.19	0	157335.28	0.002618	1987 Hourl	2016	-3.05	400	384.61038	0	7501.6996	411.90376					3,169,677	146,910	-	2,865,431	157,335
87	87	2016	17.63	0	20486.3	0	296563.81	1376.48	16600	343.79	0	217553.84	0.006532	1987 Hourl	2016	-1.53	400	1911.642056	0	46004.779	1421.0617					7,553,197	292,658	-	7,042,985	217,554
88	88	2016	23.47	0	28005.65	0	296563.81	2241.93	16600	519.27	0	299489.01	0.008986	1987 Hourl	2016	0	400	3500.963572	0	130678.85	2691.2082					15,231,585	389,602	-	14,542,494	299,489
89	89	2016	41.11	0	35748.77	0	296562.59	3906.01	16600	914.38	0	394208.87	0.006532	1987 Hourl	2016	1.53	400	4457.606632	0	213517.76	2574.9723					33,764,595	682,426	-	32,687,960	394,209
90	90	2016	78.04	0	44075.36	0	296561.34	6615.92	16600	1488.62	0	495879.88	0.002618	1987 Hourl	2016	3.05	400	3391.524752	0	171770.81	1298.2135					67,402,806	1,295,464	-	65,611,462	495,880

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**	
91	91	2016	282.7	0	58834.89	0	296562.34	12126.43	16600	2545.59	0	671590.68	0.000642	1987 Hourl	2016	4.76	400	3012.79044	0	96152.024	431.16122	155,133,918	4,692,820	-	149,769,508	671,591
92	92	2016	33.71	0	25161.23	0	296984.41	1379.32	16600	157.17	0	212718.75	0.000642	1988 Hourl	2016	-4.76	400	359.254212	0	2538.8471	136.56544	4,726,895	559,586	-	3,954,591	212,719
93	93	2016	43.6	0	34323.34	0	296981.81	2023.37	16600	282.67	0	298472.25	0.002618	1988 Hourl	2016	-3.05	400	1894.80368	0	25400.303	781.40035	10,724,411	723,760	-	9,702,179	298,472
94	94	2016	155.68	0	46605	0	296980.72	3192.5	16600	609.24	0	407292.14	0.006532	1988 Hourl	2016	-1.53	400	16880.56922	0	185467.19	2660.4323	31,385,210	2,584,288	-	28,393,630	407,292
95	95	2016	190.8	0	60469.4	0	296983.78	5204.12	16600	979.29	0	533346.8	0.008986	1988 Hourl	2016	0	400	28461.17808	0	532124.67	4792.6543	62,917,706	3,167,280	-	59,217,079	533,347
96	96	2016	408.45	0	74308.59	0	296983.59	9012.33	16600	1548.95	0	669306.61	0.006532	1988 Hourl	2016	1.53	400	44288.72364	0	751835.1	4371.9108	122,549,867	6,780,270	-	115,100,290	669,307
97	97	2016	1165.28	0	87783.77	0	296982.91	13787.88	16600	2451.03	0	793815.37	0.002618	1988 Hourl	2016	3.05	400	50641.67046	0	563290.59	2078.2086	235,298,117	19,343,648	-	215,160,654	793,815
98	98	2016	4069.06	0	111927.06	0	296984.59	18378.77	16600	3973.66	0	1008151.7	0.000642	1988 Hourl	2016	4.76	400	43364.78623	0	285535.97	647.23336	513,314,629	67,546,396	-	444,760,081	1,008,152
99	99	2016	0.81	0	5820.71	0	295300.84	381.4	16600	84.57	0	63915.03	0.000642	1989 Hourl	2016	-4.76	400	8.632332	0	316.02928	41.033449	569,618	13,446	-	492,257	63,915
100	100	2016	5.37	0	8808.24	0	295304.16	570.31	16600	172.48	0	100765.82	0.002618	1989 Hourl	2016	-3.05	400	233.373756	0	3977.384	263.80492	1,709,153	89,142	-	1,519,245	100,766
101	101	2016	13.87	0	12918.63	0	295302.44	887.38	16600	274.26	0	151943.79	0.006532	1989 Hourl	2016	-1.53	400	1503.940744	0	23143.291	992.49684	3,925,249	230,242	-	3,543,063	151,944
102	102	2016	13.06	0	17220.68	0	295303.84	1346.26	16600	535.09	0	202347.79	0.008986	1989 Hourl	2016	0	400	1948.128856	0	82802.518	1818.2972	9,633,757	216,796	-	9,214,614	202,348
103	103	2016	32.03	0	23655.86	0	295302.22	2561.05	16600	801.42	0	282930.31	0.006532	1989 Hourl	2016	1.53	400	3473.051336	0	123835.48	1848.1008	19,772,908	531,698	-	18,958,279	282,930
104	104	2016	49.97	0	30922.86	0	295303.94	4564.74	16600	1373.39	0	385806.62	0.002618	1989 Hourl	2016	3.05	400	2171.636236	0	111184.23	1010.0417	43,684,455	829,502	-	42,469,147	385,807
105	105	2016	117.33	0	41388.37	0	295301.22	8920.39	16600	2334.04	0	538569.12	0.000642	1989 Hourl	2016	4.76	400	1250.409276	0	62018.555	345.76138	99,088,358	1,947,678	-	96,602,111	538,569
106	106	2016	8.45	0	7755.27	0	295302.88	431.05	16600	103.12	0	69673.62	0.000642	1990 Hourl	2016	-4.76	400	90.05334	0	513.42245	44.730464	1,009,667	140,270	-	799,723	69,674
107	107	2016	30.07	0	11446.2	0	295301.53	723.11	16600	421.56	0	106971.14	0.002618	1990 Hourl	2016	-3.05	400	1306.806116	0	12632.531	280.05044	5,431,393	499,162	-	4,825,260	106,971
108	108	2016	35.59	0	14991.2	0	295307.09	1044.85	16600	484.26	0	139826.89	0.006532	1990 Hourl	2016	-1.53	400	3859.066408	0	47419.959	913.34925	7,990,259	590,794	-	7,259,639	139,827
109	109	2016	46.67	0	19635.37	0	295304.62	1770.74	16600	825.52	0	179706.5	0.008986	1990 Hourl	2016	0	400	6961.651892	0	145657.58	1614.8426	17,163,819	774,722	-	16,209,391	179,707
110	110	2016	271.61	0	25726.27	0	295300.5	3337.59	16600	1596.41	0	235066.45	0.006532	1990 Hourl	2016	1.53	400	29450.99823	0	268267.12	1535.4541	45,813,467	4,508,726	-	41,069,675	235,066
111	111	2016	722.1	0	31045.54	0	295300.84	5558.54	16600	2536.95	0	303898.45	0.002618	1990 Hourl	2016	3.05	400	31381.59948	0	206196.25	795.60614	91,051,741	11,986,860	-	78,760,983	303,898
112	112	2016	1917.92	0	37755.61	0	295302.69	9352.17	16600	3760.48	0	393252.32	0.000642	1990 Hourl	2016	4.76	400	20439.65702	0	91150.657	252.46799	174,209,941	31,837,472	-	141,979,216	393,252
113	113	2016	11.14	0	15502.71	0	296218.81	846.66	16600	211.63	0	158532.86	0.000642	1991 Hourl	2016	-4.76	400	118.721208	0	2106.2983	101.7781	3,624,295	184,924	-	3,280,839	158,533
114	114	2016	9.35	0	20482.09	0	296216.56	1237.48	16600	311.18	0	215193.54	0.002618	1991 Hourl	2016	-3.05	400	406.33978	0	16686.129	563.37669	6,744,020	155,210	-	6,373,617	215,194
115	115	2016	13.94	0	27748.68	0	296215.94	1906.4	16600	558.21	0	285589.33	0.006532	1991 Hourl	2016	-1.53	400	1511.530928	0	101178.01	1865.4695	16,006,584	231,404	-	15,489,591	285,589
116	116	2016	48.08	0	37091.1	0	296215.34	3034.67	16600	880.26	0	377396.94	0.008986	1991 Hourl	2016	0	400	7171.978208	0	293391.21	3391.2889	33,825,337	798,128	-	32,649,812	377,397
117	117	2016	69.81	0	46445.23	0	296217.28	5090.19	16600	1381.1	0	486036.55	0.006532	1991 Hourl	2016	1.53	400	7569.582072	0	418998.45	3174.7907	65,790,390	1,158,846	-	64,145,507	486,037
118	118	2016	198.96	0	58013.82	0	296218.19	8331.93	16600	2376.16	0	600876.52	0.002618	1991 Hourl	2016	3.05	400	8646.562848	0	360891.61	1573.0947	141,753,731	3,302,736	-	137,850,119	600,877
119	119	2016	559.11	0	72939.25	0	296214.59	13303.08	16600	3494.52	0	773116.95	0.000642	1991 Hourl	2016	4.76	400	5958.547092	0	163637.88	496.34108	264,942,011	9,281,226	-	254,887,668	773,117
120	120	2016	2.07	0	4343.52	0	295303.09	261.86	16600	59.12	0	42973.4	0.000642	1992 Hourl	2016	-4.76	400	22.060404	0	164.85848	27.588923	334,124	34,362	-	256,789	42,973
121	121	2016	8.01	0	6373.77	0	295306.19	406.78	16600	171.74	0	67582.18	0.002618	1992 Hourl	2016	-3.05	400	348.104988	0	2865.7446	176.93015	1,295,179	132,966	-	1,094,631	67,582
122	122	2016	3.39	0	8449.21	0	295304.56	573.84	16600	291.37	0	88875.15	0.006532	1992 Hourl	2016	-1.53	400	367.581768	0	16080.78	580.53248	2,606,995	56,274	-	2,461,846	88,875
123	123	2016	16.61	0	11658.58	0	295303.47	907.92	16600	570.98	0	124957.71	0.008986	1992 Hourl	2016	0	400	2477.673836	0	59818.149	1122.87	7,057,500	275,726	-	6,656,816	124,958
124	124	2016	50.93	0	15113.67	0	295302.41	1553.3	16600	820.63	0	173110.28	0.006532	1992 Hourl	2016	1.53	400	5522.401016	0	81014.639	1130.7563	13,421,279	845,438	-	12,402,731	173,110
125	125	2016	155.69	0	19827.95	0	295305	2792.26	16600	1338.57	0	237625.08	0.002618	1992 Hourl	2016	3.05	400	6766.100572	0	69484.597	622.10246	29,363,178	2,584,454	-	26,541,099	237,625
126	126	2016	561.92	0	23942.27	0	295302.5	5100.86	16600	2146.49	0	309027.46	0.000642	1992 Hourl	2016	4.76	400	5988.493824	0	32993.563	198.39563	61,028,743	9,327,872	-	51,391,843	309,027
127	127	2016	9.75	0	12270.74	0	296391.94	722.46	16600	100.41	0	122782	0.000642	1993 Hourl	2016	-4.76	400	103.9077	0	791.01141	78.826044	1,516,737	161,850	-	1,232,105	122,782
128	128	2016	10.25	0	16502.21	0	296389.09	1014.25	16600	215	0	171043.59	0.002618	1993 Hourl	2016	-3.05	400	445.4527	0	9288.5989	447.79212	3,889,169	170,150	-	3,547,975	171,044
129	129	2016	31.62	0	22985.87	0	296391.62	1553.72	16600	388.6	0	240451.76	0.006532	1993 Hourl	2016	-1.53	400	3428.594544	0	58345.843	1570.6309	9,697,653	524,892	-	8,932,309	240,452
130	130	2016	65.63	0	30567.53	0	296389.81	2553.01	16600	658.71	0	326190.68	0.008986	1993 Hourl	2016	0	400	9789.869588	0	180934.35	2931.1495	21,550,786	1,089,458	-	20,135,138	326,191
131	131	2016	77.12	0	39648.5	0	296387.91	4517.35	16600	999.3	0	429937.87	0.006532	1993 Hourl	2016	1.53	400	8362.214144	0	258802.71	2808.3542	41,330,876	1,280,192	-	39,620,746	429,938
132	132	2016	238.16	0	49866.34	0	296390.62	7853.84	16600	1789.86	0	554413.75	0.002618	1993 Hourl	2016	3.05	400	10350.14781	0	233666.36	1451.4552	93,761,637	3,953,456	-	89,253,767	554,414
133	133	2016	737.7	0	64192.32	0	296389.25	13320.03	16600	2919.56	0	727719.54	0.000642	1993 Hourl	2016	4.76	400	7861.81644	0	120319.36	467.19594	200,386,869	12,245,820	-	187,413,330	727,720
134	134	2016	7.08	0	7793.28	0	295753.44	468.83	16600	70.79	0	76582.02	0.000642	1994 Hourl	2016	-4.76	400	75.452976	0	354.1826	49.165657	745,796	117,528	-	551,686	76,582
135	135	2016	13.29	0	11831.78	0	295759.53	719.18	16600	163.78	0	123269.19	0.002618	1994 Hourl	2016	-3.05	400	577.567452	0	5073.1838	322.71874	2,281,692	220,614	-	1,937,809	123,269
136	136	2016	22.76	0	16711.35	0	295750.97	1128.79	16600	308.81	0	175607.68	0.006532	1994 Hourl	2016	-1.53	400	2467.894112	0	33709.248	1147.0694	5,714,056	377,816	-	5,160,632	175,608
137	137	2016	51.92	0	23541.09	0	295755	1899.25	16600	534.43	0	249772.36	0.008986	1994 Hourl	2016	0	400	7744.781792	0	113053.45	2244.4544	13,692,709	861,872	-	12,581,065	249,772
138	138	2016	111.05	0	30715.79	0	295756.94	3299.62	16600	961.18	0	341607.99	0.006532	1994 Hourl	2016	1.53	400	12041.28476	0	192846.87	2231.3834	31,708,441	1,843,430	-	29,523,403	341,608
139	139	2016	361.8	0	39259.65	0	295756.06	5923.15	16600	1476.27	0	448752.7	0.002618	1994 Hourl	2016	3.05	400	15723.39384	0	151733.63	1174.8346	64,412,476	6,005,880	-	57,957,844	448,753
140	140	2016	1265.49	0	50162.76	0	295755.47	11027.23	16600	2541.17	0	604229.97	0.000642	1994 Hourl	2016	4.76	400	13486.58003	0	81837.089	387.91564	149,083,465	21,007,134	-	127,472,101	604,230
141	141	2016	12.94	0	17375.45	0	295485.34	947.36	16600	110.6	0	214402.79	0.000642	1995 Hourl	2016	-4.76	400	137.904168	0	1233.7473	137.64659	2,350,932	214,804	-	1,921,725	214,403
142	142	2016	38.17	0	26810.6	0	295483.91	1598.72	16600	343.08	0	311981.87	0.002618	1995 Hourl	2016	-3.05	400	1658.822396	0	24080.837	816.76854	10,143,785	633,622	-	9,198,181	311,982
143	143	2016	82.82	0	33562.65	0	295481.44	2287.68	16600	498.12	0	393786.2	0.006532	1995 Hourl	2016	-1.53	400	8980.271984	0	109203.46	2572.2115	18,486,825	1,374,812	-	16,718,227	393,786
144	144	2016	150.04	0	44665.78	0	295482.75	3851.47	16600	907.68	0	522821.48	0.008986	1995 Hourl	2016	0	400	22381.1067	0	364312.53	4698.0738	43,555,721	2,490,664	-	40,542,235	522,821
145	145	2016	422.15	0	54144.08	0	295482.44	6469.4	16600	1624.78	0	636769.77	0.006532	1995 Hourl	2016	1.53	400	45774.23108	0	574634.53	4159.3801	95,616,678	7,007,690	-	87,972,218	636,770
146	146	2016	1027.07	0	67464.24	0	295484.03	10542.42	16600	2410.17	0	805700.43	0.002618	1995 Hourl	2016	3.05	400	44635.22972	0	425687.55	2109.3237	180,455,350	17,049,362	-	162,600,287	805,700
147	147	2016	3138.34	0	85055.18	0	295481.59	15725.29	16600	3650.8	0	1006071.5	0.000642	1995 Hourl	2016	4.76	400	33445.91705	0	199353.49	645.89788	363,621,967	52,096,444	-	310,519,451	1,006,071
148	148	2016	4.29	0	7234.04	0	295393.72	437.14	16600	83.88	0	76766.06	0.000642	1996 Hourl	2016	-4.76	400	45.719388	0	389.56	49.283811	754,771	71,214	-	606,791	76,766
149	149	2016	6.53	0	9730.77	0	295391.88	636.91	16600	232.33	0	105517.85	0.002618	1996 Hourl	2016	-3.05	400	283.785964	0	5918.643	276.24573	2,474,666	108,398	-	2,260,750	105,518
150	150	2016	6.12	0	13504.79	0	295390.94	921.11	16600	283.99	0	150345.63	0.006532	1996 Hourl	2016	-1.53	400	663.598944	0	25051.692	982.05766	4,087,163	101,592	-	3,835,225	150,346
151	151	2016	12.24	0	18977.62	0	295389.16	1519.9	16600	611.39	0	209249.03	0.008986	1996 Hourl	2016	0	400	1825.811424	0	104262.11	1880.3118	12,015,160	203,184	-	11,602,727	209,249
152	152	2016	28.59	0	24224.24	0	295389.97	2590.22	16600	918.46	0	277559.2	0.006532	1996 Hourl	2016	1.53	400	3100.048008	0	145330.44	1813.0167	23,001,149	474,594	-	22,248,995	277,559
153	153	2016	35.69	0	32186.31	0	295388.22	4683.43	16600	1298.79	0	382287.58	0.002618	1996 Hourl	2016	3.05	400	1551.044572	0	109440.93	1000.8289	42,777,999	592,454	-	41,803,258	382,288
154	154	2016	55.49	0	42077.73	0	295388.06	8755.77	16600	2270.15	0	509635.56	0.000642	1996 Hourl	2016	4.76	400	591.368028	0	61325.611	327.18603	96,953,528	921,134	-	95,522,759	509,636
155	155	2016	5.14	0	12101.67	0	296243.53	670.2	16600	124.34	0	126306.99	0.000642	1997 Hourl	2016	-4.76	400	54.778008	0	966.0313	81.089088	1,716,353	85,324	-	1,504,722	126,307
156	156	2016	6.14	0	14972.2	0	296242.19	899.85	16600	243.3	0	160064.19	0.002618	1997 Hourl	2016	-3.05	400	266.837032	0	9536.6835	419.04805	3,904,724	101,924	-	3,642,736	160,064
157	157	2016	13.41	0	19956.24	0	296243.31	1322.84	16600	399.2	0	219453.8	0.006532	1997 Hourl	2016	-1.53	400	1454.062392	0	52037.381	1433.4722	8,408,591	222,606	-	7,966,531	219,454
158	158	2016	30.55	0	27461.15	0	296245.03	2197.19	16600	677.33	0	302856.9	0.008986	1997 Hourl	2016	0	400	4557.07018	0	167141.94	2721.4721	19,410,248	507,130	-	18,600,261	302,857
159	159	2016	71.13	0	35028.59	0	296240.03	3907.2	16600	1232.36	0	404251.41	0.006532	1997 Hourl	2016	1.53	400	7712.711256	0	281972.29	2640.5702	44,752,843	1,180,758	-	43,167,833	404,251
160	160	2016	134.14	0	44024.02	0	296245.62	6506.45	16600	1933.03	0	507403.41	0.002618	1997 Hourl	2016	3.05	400	5829.563432	0	222791.15	1328.3821	87,833,879	2,226,724	-	85,099,751	507,403
161	161	2016	471.45	0	57727.78	0	296242.72	11652.3	16600	3147.99	0	677329.74	0.000642	1997 Hourl	2016	4.76	400	5024.33694	0	116668.4	434.84569	190,229,874	7,826,070	-	181,726,474	677,330
162	162	2016	7.34	0	6661.15	0	296283.31	422.01	16600	74.84	0	86060.91	0.000642	1998 Hourl	2016	-4.76	400	78.223848	0	320.05014	55.251104	706,425	121,844	-	498,520	86,061
163	163	2016	6.88	0	9808.23	0	296279.28	628.7	16600	157.22	0	119286.92	0.002618	1998 Hourl	2016	-3.05	400	298.996544	0	4037.0867	312.29316	1,775,545	114,208	-	1,542,050	119,287
164	164	2016	4.75	0	13304.18	0	296280.16	909.58	16600	243.29	0	171207.49	0.006532	1998 Hourl	2016	-1.53	400	515.0482	0	21142.607	1118.3273	3,486,831	78,850	-	3,236,774	171,207
165	165	2016	14.48	0	19253.07	0	296280.56	1556.72	16600	548.53	0	237278.31	0.008986	1998 Hourl	2016	0	400	2159.946848	0	94900.126	2132.1829	11,038,533	240,368	-	10,560,886	237,278
166	166	2016	10.55	0	24751.97	0	296281.56	2706.36	16600	822.92	0	316522.57	0.006532	1998 Hourl	2016	1.53	400	1143.94916	0	133049.6	2067.5254	20,860,544	175,130	-	20,368,891	316,523
167	167	2016	33.52	0	33836.54	0	296281.72	5088.18	16600	1405.18	0	433368.41	0.002618	1998 Hourl	2016	3.05	400	1456.738976	0	124476.55	1134.5585	48,536,230	556,432	-	47,546,429	433,368
168	168	2016	73.41	0	43589.1	0	296281.88	9530.17	16600	2317.98	0	573715.02	0.000642	1998 Hourl	2016	4.76	400	782.345052	0	64866.821	368.32504	102,830,983	1,218,606	-	101,038,662	573,715
169	169	2016	73.21	0	23287.73	0	295301.84	1270.68	16600	295.85	0	194322.14	0.000642	1999 Hourl	2016	-4.76	400	780.213612	0	4423.1713	124.75481	8,299,283	1,215,286	-	6,889,675	194,322
170	170	2016	139.28	0	31481.76	0	295300.88	1958.12	16600	413.29	0	275195.59	0.002618	1999 Hourl	2016	-3.05	400	6052.941664	0	34063.051	720.46205	15,598,340	2,312,048	-	13,011,097	275,196
171	171	2016	333	0	41077.99	0	295300.56	3172.47	16600	761.49	0	362957.14	0.006532	1999 Hourl	2016	-1.53	400	36107.5896	0	204324.09	2370.836	37,171,236	5,527,800	-	31,280,479	362,957
172	172	2016	991.44	0	50078.58	0	295301	5237.05	16600	1154.82	0	456881.7	0.008986	1999 Hourl	2016	0	400	147890.7253	0	519676.07	4105.539	74,746,531	16,457,904	-	57,831,746	456,882
173	173	2016	2810.12	0	60632.84	0	295302.53	8827.21	16600	2037.84	0	581519.05	0.006532	1999 Hourl	2016	1.53	400	304704.6837	0	807094.09	3798.4824	170,789,538	46,647,992	-	123,560,027	581,519
174	174	2016	6887.83	0	69230.68	0	295301.44	12998.98	16600	2814.17	0	703543.37	0.002618	1999 Hourl	2016	3.05	400	299336.8264	0	510056.83	1841.8765	309,868,424	114,337,978	-	194,826,903	703,543
175	175	2016	15439.17	0	80549.16	0	295302.94	17720.37	16600	3664.21	0	891694.02	0.000642	1999 Hourl	2016	4.76	400	164538.3225	0	189485.68	572.46756	552,330,954	256,290,222	-	295,149,038	891,694
176	176	2016	0.67	0	6034.12	0	295650.09	374.85	16600	166.94	0	65599.54	0.000642	2000 Hourl	2016	-4.76	400	7.140324	0	646.70971	42.114905	1,084,058	11,122	-	1,007,336	65,600
177	177	2016	1.75	0	8558.85	0	295649.75	539.13	16600	143.16	0	98005.83	0.002618	2000 Hourl	2016	-3.05	400	76.0529	0	3207.796	256.57926	1,352,341	29,050	-	1,225,285	98,006
178	178	2016	6.13	0	11346.81	0	295652.41	780	16600	318.13	0	129819.84	0.006532	2000 Hourl	2016	-1.53	400	664.683256	0	23578.957	847.98319	3,841,339	101,758	-	3,609,761	129,820
179	179	2016	14.52	0	16773.11	0	295648.44	1310.75	16600	685.9	0	195069.03	0.008986	2000 Hourl	2016	0	400	2165.913552	0	103381.02	1752.8903	11,940,777	241,032	-	11,504,676	195,069
180	180	2016	45.5	0	21498.43	0	295652.44	2190.14	16600	817.71	0	263606.07	0.006532	2000 Hourl	2016	1.53	400	4933.6196	0	114829.17	1721.8748	18,598,387	755,300	-	17,579,481	263,606

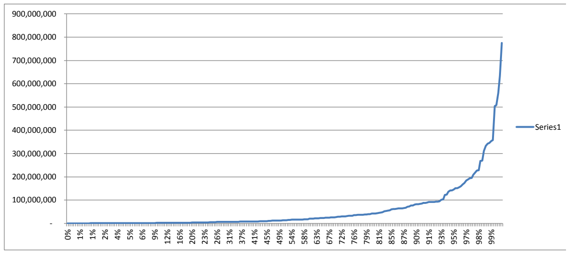
No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**	
181	181	2016	84.78	0	26858.04	0	295654.41	3747.85	16600	1243.32	0	343434.67	0.002618	2000 Hourl	2016	3.05	400	3684.437064	0	87423.236	899.11197	35,143,921	1,407,348	-	33,393,138	343,435
182	182	2016	253.08	0	37127.56	0	295655.28	7391.8	16600	2246.26	0	477982.54	0.000642	2000 Hourl	2016	4.76	400	2697.124176	0	53541.614	306.86479	88,077,263	4,201,128	-	83,398,153	477,983
183	183	2016	0.49	0	8450.18	0	296597.41	512.32	16600	103.71	0	78345.74	0.000642	2001 Hourl	2016	-4.76	400	5.222028	0	562.62836	50.297965	962,848	8,134	-	876,368	78,346
184	184	2016	2.07	0	10979.78	0	296600.09	695.67	16600	132.12	0	103643.61	0.002618	2001 Hourl	2016	-3.05	400	89.959716	0	3797.7979	271.33897	1,588,654	34,362	-	1,450,649	103,644
185	185	2016	4.4	0	14914.01	0	296598.09	986.93	16600	207.31	0	149391.47	0.006532	2001 Hourl	2016	-1.53	400	477.09728	0	20195.791	975.82508	3,314,255	73,040	-	3,091,823	149,391
186	186	2016	5.31	0	21143.57	0	296599.59	1659.29	16600	397.13	0	210046.34	0.008986	2001 Hourl	2016	0	400	792.079956	0	75453.159	1887.4764	8,694,938	88,146	-	8,396,746	210,046
187	187	2016	19.71	0	25979.04	0	296598.84	2748.65	16600	723.61	0	278108.03	0.006532	2001 Hourl	2016	1.53	400	2137.178952	0	122793.06	1816.6017	19,403,987	327,186	-	18,798,693	278,108
188	188	2016	43.97	0	34192.15	0	296596.84	5067.22	16600	1229.41	0	397153.08	0.002618	2001 Hourl	2016	3.05	400	1910.883436	0	110050.7	1039.7468	43,163,226	729,902	-	42,036,171	397,153
189	189	2016	87.11	0	41609.99	0	296600.44	9001.18	16600	2196.48	0	511258.46	0.000642	2001 Hourl	2016	4.76	400	928.348692	0	58675.918	328.22793	93,352,795	1,446,026	-	91,395,511	511,258
190	190	2016	13.64	0	15533.81	0	295302.41	905.57	16600	101.82	0	161385.91	0.000642	2002 Hourl	2016	-4.76	400	145.364208	0	1015.4209	103.60975	1,969,462	226,424	-	1,581,653	161,386
191	191	2016	20.12	0	22246.14	0	295300.69	1378.63	16600	227.37	0	225229.95	0.002618	2002 Hourl	2016	-3.05	400	874.391056	0	13242.119	589.65201	5,617,327	333,992	-	5,058,105	225,230
192	192	2016	43.29	0	29745.78	0	295303.84	2059.3	16600	382.41	0	307624.55	0.006532	2002 Hourl	2016	-1.53	400	4693.986648	0	74302.047	2009.4036	12,401,322	718,614	-	11,375,084	307,625
193	193	2016	67.98	0	41226.67	0	295301.41	3386.31	16600	640.04	0	427320.23	0.008986	2002 Hourl	2016	0	400	10140.41345	0	237111.05	3839.8996	27,942,506	1,128,468	-	26,386,718	427,320
194	194	2016	113.78	0	51466.51	0	295302.59	5847.07	16600	1167.12	0	543402.15	0.006532	2002 Hourl	2016	1.53	400	12337.30194	0	392361.52	3549.5028	62,499,743	1,888,748	-	60,067,593	543,402
195	195	2016	286.46	0	66602.21	0	295298.09	10223.07	16600	1913.06	0	707287.99	0.002618	2002 Hourl	2016	3.05	400	12449.20785	0	333569.91	1851.68	132,876,548	4,755,236	-	127,414,024	707,288
196	196	2016	745.24	0	83547.77	0	295303.22	15703.38	16600	3097.48	0	892583.82	0.000642	2002 Hourl	2016	4.76	400	7942.171728	0	166141.6	573.03881	272,051,114	12,370,984	-	258,787,547	892,584
197	197	2016	3.08	0	6553.02	0	295949.62	391.99	16600	149.44	0	76298.18	0.000642	2003 Hourl	2016	-4.76	400	32.824176	0	628.69988	48.983432	1,106,709	51,128	-	979,283	76,298
198	198	2016	3.05	0	9495.34	0	295949.38	589.3	16600	185.79	0	111894.36	0.002618	2003 Hourl	2016	-3.05	400	132.54934	0	4618.5165	292.93943	1,926,664	50,630	-	1,764,139	111,894
199	199	2016	10.64	0	13298.66	0	295949	915.23	16600	263.14	0	155893.69	0.006532	2003 Hourl	2016	-1.53	400	1153.707968	0	22858.142	1018.2976	3,831,927	176,624	-	3,499,409	155,894
200	200	2016	18.59	0	18134.32	0	295948.44	1418.63	16600	536.07	0	213868.69	0.008986	2003 Hourl	2016	0	400	2773.025684	0	87355.287	1921.824	10,243,728	308,594	-	9,721,265	213,869
201	201	2016	50.62	0	23596.44	0	295952.03	2481.51	16600	878.93	0	286997.64	0.006532	2003 Hourl	2016	1.53	400	5488.787344	0	135471.19	1874.6686	21,866,909	840,292	-	20,739,619	286,998
202	202	2016	167.38	0	30733.44	0	295950.41	4475.83	16600	1474.69	0	388639.5	0.002618	2003 Hourl	2016	3.05	400	7274.133944	0	118653.77	1017.4582	48,489,444	2,778,508	-	45,322,297	388,640
203	203	2016	613.61	0	38640.01	0	295951	8331.2	16600	2410.71	0	532009.34	0.000642	2003 Hourl	2016	4.76	400	6539.364492	0	59802.209	341.55	103,867,794	10,185,926	-	93,149,859	532,009
204	204	2016	0.58	0	3252.11	0	295298.84	216.96	16600	74.95	0	36233.4	0.000642	2004 Hourl	2016	-4.76	400	6.181176	0	156.4847	23.261843	289,607	9,628	-	243,746	36,233
205	205	2016	0	0	4594.47	0	295301.16	298.05	16600	121.68	0	56382.59	0.002618	2004 Hourl	2016	-3.05	400	0	0	1463.6063	147.60962	615,438	-	-	559,055	56,383
206	206	2016	2.54	0	6508.81	0	295301.56	459.31	16600	172.92	0	82597.98	0.006532	2004 Hourl	2016	-1.53	400	275.415248	0	7351.7884	539.53001	1,250,265	42,164	-	1,125,503	82,598
207	207	2016	4.87	0	9032.13	0	295300.81	712.08	16600	342.96	0	112830.58	0.008986	2004 Hourl	2016	0	400	726.446212	0	27835.567	1013.8956	3,291,332	80,842	-	3,097,659	112,831
208	208	2016	21.75	0	12691.4	0	295302.09	1302.04	16600	722.71	0	164889.09	0.006532	2004 Hourl	2016	1.53	400	2358.3786	0	59912.821	1077.0555	9,698,141	361,050	-	9,172,202	164,889
209	209	2016	98	0	15567.31	0	295303.09	2171.55	16600	1004.33	0	216015.88	0.002618	2004 Hourl	2016	3.05	400	4258.9624	0	40931.688	565.52957	17,477,532	1,626,800	-	15,634,716	216,016
210	210	2016	301.16	0	21031.7	0	295298.41	4485.5	16600	1723.42	0	300869.15	0.000642	2004 Hourl	2016	4.76	400	3209.522352	0	23270.222	193.15799	41,546,578	4,999,256	-	36,246,452	300,869
211	211	2016	20.7	0	14942.5	0	296224.16	875.97	16600	148.5	0	132201.18	0.000642	2005 Hourl	2016	-4.76	400	220.60404	0	1424.5731	84.873158	2,694,782	343,620	-	2,218,961	132,201
212	212	2016	25.66	0	20948.73	0	296225.94	1291.03	16600	218.21	0	196066.98	0.002618	2005 Hourl	2016	-3.05	400	1115.152808	0	11967.46	513.30335	5,193,245	425,956	-	4,571,222	196,067
213	213	2016	67.34	0	29850.07	0	296222.81	2089.53	16600	478.17	0	273949.14	0.006532	2005 Hourl	2016	-1.53	400	7301.757008	0	93233.901	1789.4358	15,665,201	1,117,844	-	14,273,408	273,949
214	214	2016	113.8	0	37755.21	0	296223.88	3249.1	16600	756.44	0	352019.37	0.008986	2005 Hourl	2016	0	400	16975.27288	0	256636.13	3163.2461	30,800,650	1,889,080	-	28,559,551	352,019
215	215	2016	296.08	0	48006.35	0	296225.97	5749.39	16600	1463.11	0	473318.84	0.006532	2005 Hourl	2016	1.53	400	32104.3097	0	458798.34	3091.7187	75,626,818	4,914,928	-	70,238,571	473,319
216	216	2016	611.87	0	60047.14	0	296224.62	9321.01	16600	2068.67	0	606453.39	0.002618	2005 Hourl	2016	3.05	400	26591.13596	0	325201.98	1587.695	134,981,212	10,157,042	-	124,217,717	606,453
217	217	2016	1734.23	0	76836.65	0	296229.88	15061.9	16600	3150.1	0	821211.77	0.000642	2005 Hourl	2016	4.76	400	18482.03596	0	155391.69	527.21796	271,652,561	28,788,218	-	242,043,131	821,212
218	218	2016	13.3	0	13714.44	0	295578.34	773.21	16600	141.44	0	136231.15	0.000642	2006 Hourl	2016	-4.76	400	141.74076	0	1245.3326	87.460398	2,296,782	220,780	-	1,939,770	136,231
219	219	2016	18.28	0	18142.5	0	295581.88	1076.79	16600	215.05	0	185905.27	0.002618	2006 Hourl	2016	-3.05	400	794.426864	0	10214.244	486.7	4,390,898	303,448	-	3,901,545	185,905
220	220	2016	34.1	0	25084.42	0	295578.91	1747.72	16600	440.92	0	252938.06	0.006532	2006 Hourl	2016	-1.53	400	3697.50392	0	72245.373	1652.1914	11,879,221	566,060	-	11,060,222	252,938
221	221	2016	50.7	0	33107.25	0	295584.69	2757.49	16600	710.73	0	335715.52	0.008986	2006 Hourl	2016	0	400	7562.79732	0	211443.42	3016.7397	24,707,651	841,620	-	23,530,316	335,716
222	222	2016	122.3	0	42177.62	0	295581.22	4953.64	16600	1273.85	0	436761.67	0.006532	2006 Hourl	2016	1.53	400	13261.13576	0	350951.04	2852.9272	56,194,903	2,030,180	-	53,727,961	436,762
223	223	2016	280.43	0	52581.2	0	295579.44	8375.58	16600	2143.29	0	555397.75	0.002618	2006 Hourl	2016	3.05	400	12187.15128	0	295040.12	1454.0313	117,907,296	4,655,138	-	112,696,760	555,398
224	224	2016	783.52	0	66416.03	0	295582.5	14017.72	16600	3334.03	0	720691.55	0.000642	2006 Hourl	2016	4.76	400	8350.129344	0	142160.01	462.68398	235,160,160	13,006,432	-	221,433,037	720,692
225	225	2016	38.28	0	30716.83	0	296275.09	1606.69	16600	140.95	0	268326.45	0.000642	2007 Hourl	2016	-4.76	400	407.957616	0	2779.5629	172.26558	5,233,312	635,448	-	4,329,537	268,326
226	226	2016	95.71	0	40801.94	0	296277.94	2384.45	16600	342.8	0	359500.92	0.002618	2007 Hourl	2016	-3.05	400	4159.441748	0	36617.717	941.17341	15,935,192	1,588,786	-	13,986,905	359,501
227	227	2016	181.13	0	51445.56	0	296272.75	3615.87	16600	597.19	0	460496.53	0.006532	2007 Hourl	2016	-1.53	400	19640.14326	0	200681.16	3007.9633	34,190,029	3,006,758	-	30,722,774	460,497
228	228	2016	547.89	0	65690.18	0	296274.5	6095.53	16600	1082.13	0	586141.41	0.008986	2007 Hourl	2016	0	400	81727.43636	0	638772.64	5267.0667	80,766,430	9,094,974	-	71,085,314	586,141
229	229	2016	1557.99	0	78701.1	0	296277.06	9966.37	16600	1744.45	0	737896.76	0.006532	2007 Hourl	2016	1.53	400	168934.7253	0	896779.15	4819.9416	163,890,665	25,862,634	-	137,290,134	737,897
230	230	2016	3646.97	0	95482.65	0	296275.19	15002.1	16600	2647.32	0	906929.68	0.002618	2007 Hourl	2016	3.05	400	158492.9398	0	661760.05	2374.3419	314,219,761	60,539,702	-	252,773,129	906,930
231	231	2016	12048.06	0	116314.88	0	296277.22	18805.88	16600	4010.48	0	1142580.7	0.000642	2007 Hourl	2016	4.76	400	128398.585	0	299479.2	733.53679	667,618,877	199,997,796	-	466,478,500	1,142,581
232	232	2016	1.76	0	7737.08	0	295693.59	476.89	16600	72.29	0	82265.55	0.000642	2008 Hourl	2016	-4.76	400	18.756672	0	359.07928	52.814483	670,795	29,216	-	559,314	82,266
233	233	2016	3.65	0	11310.52	0	295695.97	712.73	16600	162.54	0	122205.45	0.002618	2008 Hourl	2016	-3.05	400	158.62462	0	4812.9624	319.93387	2,021,207	60,590	-	1,838,412	122,205
234	234	2016	12.05	0	16079.48	0	295693.22	1103.74	16600	291.63	0	180302.6	0.006532	2008 Hourl	2016	-1.53	400	1306.59596	0	30630.238	1177.7366	5,069,591	200,030	-	4,689,259	180,303
235	235	2016	20.01	0	22511.33	0	295695.03	1822.07	16600	574.97	0	242638.41	0.008986	2008 Hourl	2016	0	400	2984.843676	0	116308.85	2180.3488	13,518,144	332,166	-	12,943,339	242,638
236	236	2016	23.6	0	29491.19	0	295697.31	3071.61	16600	853.34	0	328732.34	0.006532	2008 Hourl	2016	1.53	400	2558.97632	0	164384.39	2147.2796	25,886,504	391,760	-	25,166,012	328,732
237	237	2016	58.52	0	40694.86	0	295695.03	5792.59	16600	1372.44	0	448583.55	0.002618	2008 Hourl	2016	3.05	400	2543.208976	0	146218.58	1174.3917	57,271,269	971,432	-	55,851,254	448,584
238	238	2016	93.61	0	51007.12	0	295694.94	10425	16600	2330.84	0	610590.24	0.000642	2008 Hourl	2016	4.76	400	997.620492	0	76327.018	391.99893	121,053,952	1,553,926	-	118,889,436	610,590
239	239	2016	1.76	0	4402.79	0	296140.22	282.68	16600	59.1	0	47952	0.000642	2009 Hourl	2016	-4.76	400	18.756672	0	167.05154	30.785184	337,373	29,216	-	260,205	47,952
240	240	2016	2.68	0	6469.5	0	296141.34	427.35	16600	146.14	0	72312.9	0.002618	2009 Hourl	2016	-3.05	400	116.469584	0	2475.1952	189.31517	1,062,254	44,488	-	945,453	72,313
241	241	2016	6.02	0	8686.29	0	296140	610.22	16600	258.32	0	97521.07	0.006532	2009 Hourl	2016	-1.53	400	652.755824	0	14656.779	637.00763	2,441,296	99,932	-	2,243,842	97,521
242	242	2016	24.85	0	12670.13	0	296141.72	1025.92	16600	442.19	0	145889.95	0.008986	2009 Hourl	2016	0	400	3706.81486	0	50345.007	1310.9671	6,161,005	412,510	-	5,602,605	145,890
243	243	2016	92.33	0	17338.36	0	296140.97	1881.02	16600	797.38	0	197898.68	0.006532	2009 Hourl	2016	1.53	400	10011.4527	0	90306.608	1292.6742	15,555,838	1,532,678	-	13,825,261	197,899
244	244	2016	252.47	0	21856.3	0	296143.66	3244.47	16600	1211.49	0	261646.75	0.002618	2009 Hourl	2016	3.05	400	10972.04324	0	69321.208	684.99119	30,931,338	4,191,002	-	26,478,689	261,647
245	245	2016	925.85	0	27908.24	0	296142.97	6209.71	16600	1959.83	0	370406.35	0.000642	2009 Hourl	2016	4.76	400	9866.96862	0	35114.451	237.80088	70,434,922	15,369,110	-	54,695,406	370,406

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations
1	1	2016	1.2	0	5006	0	295300.59	335.16	16600	72.43	0	72259.43	0.000642	1975 Hourly	2016	-4.76	400
2	2	2016	5.55	0	8260.5	0	295300.91	543.27	16600	164.31	0	116786.95	0.002618	1975 Hourly	2016	-3.05	400
3	3	2016	2.93	0	10347.2	0	295304.84	717.14	16600	223.26	0	153634.1	0.006532	1975 Hourly	2016	-1.53	400
4	4	2016	5.12	0	15537.43	0	295302.38	1254.15	16600	449.69	0	216437.57	0.008986	1975 Hourly	2016	0	400
5	5	2016	11.8	0	20857.76	0	295297.47	2236.1	16600	749.34	0	297638.3	0.006532	1975 Hourly	2016	1.53	400
6	6	2016	25.01	0	27643.81	0	295303.72	4146.53	16600	1182.91	0	407090.4	0.002618	1975 Hourly	2016	3.05	400
7	7	2016	57.35	0	35788.45	0	295299.59	7963.79	16600	2127.5	0	545358.76	0.000642	1975 Hourly	2016	4.76	400
8	8	2016	0.23	0	4689.45	0	296220.66	291.46	16600	74.75	0	95829.85	0.000642	1976 Hourly	2016	-4.76	400
9	9	2016	0.28	0	7219.35	0	296217.66	439.33	16600	157.17	0	140818.53	0.002618	1976 Hourly	2016	-3.05	400
10	10	2016	0.71	0	9970.97	0	296223.19	658.38	16600	256.01	0	186013.31	0.006532	1976 Hourly	2016	-1.53	400
11	11	2016	5.7	0	13710.25	0	296220.44	1079.89	16600	538.89	0	244892.72	0.008986	1976 Hourly	2016	0	400
12	12	2016	7.6	0	17042.97	0	296215.75	1769.66	16600	1093.46	0	311150.52	0.006532	1976 Hourly	2016	1.53	400
13	13	2016	24.83	0	25515.55	0	296018.47	3581.57	16600	1621.26	0	441957.35	0.002618	1976 Hourly	2016	3.05	400
14	14	2016	113.58	0	31758.04	0	296216.97	6385.03	16600	2804.63	0	563557.76	0.000642	1976 Hourly	2016	4.76	400
15	15	2016	4.42	0	10868.49	0	295305.47	653.4	16600	82.96	0	171913.78	0.000642	1977 Hourly	2016	-4.76	400
16	16	2016	19.42	0	16027.57	0	295302.84	985.74	16600	182.66	0	254040.84	0.002618	1977 Hourly	2016	-3.05	400
17	17	2016	43.24	0	22131.17	0	295302.88	1498.31	16600	362.27	0	336265.81	0.006532	1977 Hourly	2016	-1.53	400
18	18	2016	126.07	0	31021.26	0	295303.72	2480.15	16600	586.02	0	474893.6	0.008986	1977 Hourly	2016	0	400
19	19	2016	535.94	0	42298.58	0	295301.09	4722.05	16600	1045.35	0	645346.3	0.006532	1977 Hourly	2016	1.53	400
20	20	2016	1441.2	0	54291.33	0	295302.03	8270.76	16600	1616.54	0	845976.04	0.002618	1977 Hourly	2016	3.05	400
21	21	2016	5412.27	0	69433.45	0	295300.09	13566.5	16600	2597.03	0	1130260.3	0.000642	1977 Hourly	2016	4.76	400
22	22	2016	3.28	0	5736.63	0	295303.28	360.7	16600	91.81	0	93104.74	0.000642	1978 Hourly	2016	-4.76	400
23	23	2016	8.15	0	8279.35	0	295304.81	525.16	16600	172.58	0	136213.32	0.002618	1978 Hourly	2016	-3.05	400
24	24	2016	13.18	0	11622	0	295297.44	810.61	16600	299.05	0	197256.78	0.006532	1978 Hourly	2016	-1.53	400
25	25	2016	16.69	0	15499.2	0	295305.03	1262.39	16600	518.96	0	261762.52	0.008986	1978 Hourly	2016	0	400
26	26	2016	93.64	0	22243.76	0	295301.81	2510.02	16600	1063.49	0	373268.7	0.006532	1978 Hourly	2016	1.53	400
27	27	2016	391.8	0	27816.02	0	295299.69	4268.19	16600	1534.48	0	480027.65	0.002618	1978 Hourly	2016	3.05	400
28	28	2016	1094.04	0	37818.5	0	295305.53	8619.39	16600	2542.7	0	675386.03	0.000642	1978 Hourly	2016	4.76	400
29	29	2016	0.35	0	4290.89	0	295929.81	265.17	16600	79.5	0	85225.69	0.000642	1979 Hourly	2016	-4.76	400
30	30	2016	2.24	0	6429.54	0	295927.66	411	16600	149.09	0	120231.82	0.002618	1979 Hourly	2016	-3.05	400
31	31	2016	2.3	0	8403.89	0	295927.38	584.49	16600	260.13	0	165762.49	0.006532	1979 Hourly	2016	-1.53	400
32	32	2016	12.2	0	12366.14	0	295929.91	1023.38	16600	654.31	0	233096.97	0.008986	1979 Hourly	2016	0	400
33	33	2016	11.16	0	16695.48	0	295932.41	1781.95	16600	811.51	0	307496.41	0.006532	1979 Hourly	2016	1.53	400
34	34	2016	26.73	0	22030.19	0	295930.09	3170.31	16600	1441.71	0	412760.31	0.002618	1979 Hourly	2016	3.05	400
35	35	2016	141.77	0	29237.44	0	295931.56	6185.53	16600	2454.85	0	569038.45	0.000642	1979 Hourly	2016	4.76	400
36	36	2016	12.3	0	12007.24	0	295479.31	718.54	16600	119.78	0	168573.19	0.000642	1980 Hourly	2016	-4.76	400
37	37	2016	32.33	0	18469.86	0	295482.19	1144.7	16600	244.33	0	249422.27	0.002618	1980 Hourly	2016	-3.05	400
38	38	2016	50.89	0	23841.83	0	295480.69	1663.29	16600	518.33	0	322213.53	0.006532	1980 Hourly	2016	-1.53	400
39	39	2016	68.56	0	32946.07	0	295483.25	2774.4	16600	651.53	0	445724.97	0.008986	1980 Hourly	2016	0	400
40	40	2016	238.15	0	41102.01	0	295480.59	4930.38	16600	1295.16	0	574365.29	0.006532	1980 Hourly	2016	1.53	400
41	41	2016	612.79	0	52539.37	0	295482.44	8651.57	16600	2030.59	0	736967.71	0.002618	1980 Hourly	2016	3.05	400
42	42	2016	1430.48	0	63364.88	0	295482.25	14075.61	16600	2997.48	0	927625.58	0.000642	1980 Hourly	2016	4.76	400
43	43	2016	3.23	0	3508.24	0	296013.88	234.94	16600	92.79	0	54855.32	0.000642	1981 Hourly	2016	-4.76	400
44	44	2016	1.8	0	5446.75	0	296013.03	364.26	16600	138.58	0	87342.75	0.002618	1981 Hourly	2016	-3.05	400
45	45	2016	6.06	0	7923.96	0	296011.75	548.79	16600	265.36	0	122026.05	0.006532	1981 Hourly	2016	-1.53	400
46	46	2016	12.13	0	11121.45	0	296012.22	878.74	16600	393.47	0	171368.75	0.008986	1981 Hourly	2016	0	400
47	47	2016	35.84	0	15207.16	0	296013.44	1614.96	16600	730.04	0	237027.1	0.006532	1981 Hourly	2016	1.53	400
48	48	2016	94.88	0	19606.25	0	296011.53	2881.68	16600	1142.88	0	318363.72	0.002618	1981 Hourly	2016	3.05	400
49	49	2016	316.34	0	26334.62	0	294904.69	5963.1	16600	2042.6	0	446539.96	0.000642	1981 Hourly	2016	4.76	400
50	50	2016	1.19	0	4443.65	0	296814.22	297.47	16600	59.75	0	77511.42	0.000642	1982 Hourly	2016	-4.76	400
51	51	2016	1.94	0	6721.41	0	296815.06	439.39	16600	132.68	0	110239.09	0.002618	1982 Hourly	2016	-3.05	400
52	52	2016	6.43	0	10332.08	0	296817.69	707.07	16600	303.59	0	165720.87	0.006532	1982 Hourly	2016	-1.53	400
53	53	2016	17.25	0	13906.36	0	296814.75	1084.9	16600	387.27	0	221268.43	0.008986	1982 Hourly	2016	0	400
54	54	2016	80.63	0	19303.61	0	296813.97	1989.3	16600	723.87	0	311336.38	0.006532	1982 Hourly	2016	1.53	400
55	55	2016	345.86	0	24262.8	0	296813.78	3514.32	16600	1152.33	0	400035.57	0.002618	1982 Hourly	2016	3.05	400
56	56	2016	1220.12	0	31134.92	0	296814.25	7040.18	16600	1833.88	0	545815.28	0.000642	1982 Hourly	2016	4.76	400
57	57	2016	59.27	0	27128.68	0	295752.91	1457.34	16600	192.04	0	298379.86	0.000642	1983 Hourly	2016	-4.76	400
58	58	2016	194.24	0	35651.57	0	295759.59	2243.6	16600	567.44	0	382088.58	0.002618	1983 Hourly	2016	-3.05	400
59	59	2016	550.34	0	44500.58	0	295760.69	3595.71	16600	735.94	0	491007.55	0.006532	1983 Hourly	2016	-1.53	400
60	60	2016	1629.96	0	55132.91	0	295759.31	6244.26	16600	1211.31	0	623084.74	0.008986	1983 Hourly	2016	0	400
61	61	2016	4288.36	0	66134.66	0	295761.44	10468.89	16600	1958.51	0	774375.82	0.006532	1983 Hourly	2016	1.53	400
62	62	2016	11422.48	0	73471.91	0	295755.91	14754.28	16600	2682.43	0	937126.47	0.002618	1983 Hourly	2016	3.05	400
63	63	2016	23989.63	0	82947.69	0	295757.06	18495.79	16600	3353.94	0	1170887.7	0.000642	1983 Hourly	2016	4.76	400
64	64	2016	2	0	4693.27	0	295299.5	286.18	16600	87.25	0	70377.47	0.000642	1984 Hourly	2016	-4.76	400
65	65	2016	3.46	0	6538.75	0	295300.22	421.63	16600	152.7	0	100649.49	0.002618	1984 Hourly	2016	-3.05	400
66	66	2016	3.46	0	9575.44	0	295300.97	634.58	16600	229.35	0	146588.52	0.006532	1984 Hourly	2016	-1.53	400
67	67	2016	9.63	0	12524	0	295302.31	984.86	16600	391.71	0	192191.69	0.008986	1984 Hourly	2016	0	400
68	68	2016	37.13	0	16637.16	0	295302.62	1728.85	16600	936.47	0	257661.04	0.006532	1984 Hourly	2016	1.53	400
69	69	2016	128.66	0	22743.28	0	295299.34	3245.83	16600	1472.85	0	351037.71	0.002618	1984 Hourly	2016	3.05	400
70	70	2016	412.62	0	28912.03	0	295302.25	6148.61	16600	2284.75	0	468661.1	0.000642	1984 Hourly	2016	4.76	400
71	71	2016	0.79	0	2496.04	0	295932.41	173.18	16600	59.7	0	40492.34	0.000642	1985 Hourly	2016	-4.76	400
72	72	2016	5.91	0	4282.37	0	295931.59	290.22	16600	161.05	0	68947.22	0.002618	1985 Hourly	2016	-3.05	400
73	73	2016	5.91	0	5512.98	0	295931.62	392.02	16600	247.61	0	94995.04	0.006532	1985 Hourly	2016	-1.53	400
74	74	2016	9.77	0	8340.94	0	295930.34	661.93	16600	410.67	0	137370.52	0.008986	1985 Hourly	2016	0	400
75	75	2016	21.9	0	11498.18	0	295930.56	1210.15	16600	806.01	0	187922.09	0.006532	1985 Hourly	2016	1.53	400
76	76	2016	28.19	0	14855.01	0	295929.53	2080.89	16600	1167.78	0	252353.56	0.002618	1985 Hourly	2016	3.05	400
77	77	2016	38.95	0	20593.29	0	295930.25	4392.94	16600	1885.45	0	364925.76	0.000642	1985 Hourly	2016	4.76	400
78	78	2016	3.03	0	10353.93	0	295849.72	570.13	16600	327.51	0	138675.11	0.000642	1986 Hourly	2016	-4.76	400
79	79	2016	1.99	0	13820.65	0	295845.41	805.82	16600	408.26	0	192655.3	0.002618	1986 Hourly	2016	-3.05	400
80	80	2016	3.78	0	18828.05	0	295845.97	1265.56	16600	644.73	0	256392.11	0.006532	1986 Hourly	2016	-1.53	400
81	81	2016	9.57	0	24059.07	0	295850.59	1941.79	16600	924.59	0	329188.45	0.008986	1986 Hourly	2016	0	400
82	82	2016	10.27	0	31015.33	0	295843.47	3265.89	16600	1337.85	0	434317.81	0.006532	1986 Hourly	2016	1.53	400
83	83	2016	32.32	0	39368.61	0	295843	5702.17	16600	2079.48	0	555350.34	0.002618	1986 Hourly	2016	3.05	400
84	84	2016	55.93	0	48356.53	0	295846.31	9728.15	16600	3174.08	0	712743.27	0.000642	1986 Hourly	2016	4.76	400
85	85	2016	0.63	0	7384.91	0	296563	456.02	16600	71.42	0	107162.86	0.000642	1987 Hourly	2016	-4.76	400
86	86	2016	5.23	0	10945	0	296560.25	685.68	16600	251.18	0	157159.52	0.002618	1987 Hourly	2016	-3.05	400
87	87	2016	6.11	0	15645.18	0	296563.81	1059.93	16600	266.8	0	218399.91	0.006532	1987 Hourly	2016	-1.53	400
88	88	2016	33.9	0	21470.17	0	296563.81	1789.25	16600	665.09	0	293107.67	0.008986	1987 Hourly	2016	0	400
89	89	2016	25.62	0	27857.21	0	296562.59	3043.82	16600	867.43	0	391101.2	0.006532	1987 Hourly	2016	1.53	400
90	90	2016	58.88	0	35636.29	0	296561.34	5284.6	16600	1394.37	0	515000.38	0.002618	1987 Hourly	2016	3.05	400
91	91	2016	204.14	0	47326.83	0	296562.34	10220.69	16600	2417.79	0	693554.08	0.000642	1987 Hourly	2016	4.76	400
92	92	2016	19.84	0	18270.37	0	296984.41	995.35	16600	109.21	0	211526.45	0.000642	1988 Hourly	2016	-4.76	400
93	93	2016	38.69	0	26707.62	0	296981.81	1565.46	16600	262.59	0	303325.43	0.002618	1988 Hourly	2016	-3.05	400
94	94	2016	67.66	0	37142.07	0	296980.72	2549.58	16600	476.64	0	413708.96	0.006532	1988 Hourly	2016	-1.53	400
95	95	2016	135.19	0	45973.17	0	296983.78	3939.36	16600	818.57	0	512842.21	0.008986	1988 Hourly	2016	0	400
96	96	2016	414.18	0	60965.91	0	296983.59	7540.62	16600	1552.32	0	677513.88	0.006532	1988 Hourly	2016	1.53	400
97	97	2016	955.75	0	73660.32	0	296982.91	12218.48	16600	2386.55	0	837550.8	0.002618	1988 Hourly	2016	3.05	400
98	98	2016	3148.62	0	89455.77	0	296984.59	17230.46	16600	3666.31	0	1037959.3	0.000642	1988 Hourly	2016	4.76	400

No	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**								
1	12.78864	0	232.7793	46.390554	**316**	**23,245**	**-**	**3,910**	454,764	19,920	-	362,585	72,259	195,134	0.000642	0.000642
2	241.19634	0	3553.3663	305.74824					1,566,200	92,130	-	1,357,283	116,787	214,099	0.000642	0.001284
3	317.703416	0	15089.677	1003.5379					2,512,388	48,638	-	2,310,116	153,634	231,181	0.000642	0.001926
4	763.738112	0	62785.424	1944.908					7,288,456	84,992	-	6,987,027	216,438	312,920	0.000642	0.002568
5	1279.48816	0	102092.25	1944.1734					16,123,072	195,880	-	15,629,554	297,638	345,926	0.000642	0.00321
6	1086.904588	0	85608.965	1065.7627					33,522,396	415,166	-	32,700,139	407,090	382,273	0.000642	0.003852
7	611.19042	0	48881.833	350.12032					77,637,296	952,010	-	76,139,927	545,359	393,845	0.000642	0.004494
8	2.451156	0	225.04436	61.522764					450,184	3,818	-	350,536	95,830	432,137	0.000642	0.005136
9	12.168464	0	2970.5536	368.66291					1,280,132	4,648	-	1,134,665	140,819	443,344	0.000642	0.005778
10	76.986152	0	16674.028	1215.0389					2,750,467	11,786	-	2,552,668	186,013	480,562	0.000642	0.00642
11	850.25532	0	66391.413	2200.606					7,727,829	94,620	-	7,388,317	244,893	485,102	0.000642	0.007062
12	824.07712	0	121729.08	2032.4352					19,073,116	126,160	-	18,635,806	311,151	516,783	0.000642	0.007704
13	1079.082004	0	108299.7	1157.0443					42,221,476	412,178	-	41,367,341	441,957	533,142	0.002618	0.010322
14	1210.444776	0	57182.652	361.80408					91,518,537	1,885,428	-	89,069,552	563,558	562,272	0.000642	0.010964
15	47.104824	0	578.85926	110.36865					1,146,936	73,372	-	901,650	171,914	569,042	0.000642	0.011606
16	843.969896	0	7664.4462	665.07892					3,504,009	322,372	-	2,927,596	254,041	571,424	0.000642	0.012248
17	4688.565088	0	52370.042	2196.4883					9,071,509	717,784	-	8,017,459	336,266	584,318	0.000642	0.01289
18	18805.55933	0	163357.2	4267.3939					20,746,734	2,092,762	-	18,179,079	474,894	654,810	0.002618	0.015508
19	58112.61733	0	288824.27	4215.402					53,758,771	8,896,604	-	44,216,821	645,346	654,889	0.000642	0.01615
20	62632.82256	0	229766.43	2214.7653					112,534,003	23,923,920	-	87,764,107	845,976	706,980	0.000642	0.016792
21	57679.64384	0	115765.92	725.62713					271,294,695	89,843,682	-	180,320,753	1,130,260	744,712	0.002618	0.01941
22	34.955616	0	338.12856	59.773243					674,233	54,448	-	526,680	93,105	851,295	0.000642	0.020052
23	354.18922	0	3740.7299	356.60647					1,700,354	135,290	-	1,428,850	136,213	897,625	0.002618	0.02267
24	1429.123216	0	22702.352	1288.4813					3,891,604	218,788	-	3,475,559	197,257	1,038,836	0.002618	0.025288
25	2489.607244	0	72278.575	2352.198					8,582,281	277,054	-	8,043,465	261,763	1,088,366	0.002618	0.027906
26	10153.49757	0	154521.1	2438.1911					25,583,709	1,554,424	-	23,656,016	373,269	1,095,863	0.002618	0.030524
27	17027.15784	0	111744.42	1256.7124					49,667,034	6,503,880	-	42,683,126	480,028	1,099,941	0.000642	0.031166
28	11659.40309	0	61735.426	433.59783					114,997,550	18,161,064	-	96,161,100	675,386	1,146,632	0.002618	0.033784
29	3.73002	0	219.00273	54.714893					432,161	5,810	-	341,126	85,226	1,157,654	0.006532	0.040316
30	97.347712	0	2509.5628	314.7669					1,115,996	37,184	-	958,580	120,232	1,163,797	0.002618	0.042934
31	249.39176	0	14279.631	1082.7606					2,390,046	38,180	-	2,186,104	165,762	1,180,990	0.002618	0.045552
32	1819.84472	0	72708.324	2094.6094					8,526,906	202,520	-	8,091,289	233,097	1,219,026	0.002618	0.04817
33	1210.092192	0	88499.122	2008.5666					14,041,301	185,256	-	13,548,549	307,496	1,231,844	0.002618	0.050788
34	1161.653724	0	83150.678	1080.6065					32,617,624	443,718	-	31,761,145	412,760	1,241,518	0.000642	0.05143
35	1510.871244	0	46078.606	365.32268					74,695,950	2,353,382	-	71,773,530	569,038	1,261,922	0.000642	0.052072
36	131.08356	0	923.34187	108.22399					1,810,980	204,180	-	1,438,227	168,573	1,271,243	0.002618	0.05469
37	1405.023004	0	11814.356	652.9875					5,298,841	536,678	-	4,512,741	249,422	1,274,404	0.000642	0.055332
38	5518.063768	0	80722.036	2104.6988					13,524,923	844,774	-	12,357,936	322,214	1,290,715	0.000642	0.055974
39	10226.93066	0	192887.66	4005.2846					23,049,174	1,138,096	-	21,465,353	445,725	1,435,237	0.002618	0.058592
40	25822.89028	0	347722.39	3751.7541					57,761,335	3,953,290	-	53,233,679	574,365	1,442,902	0.000642	0.059234
41	26631.11805	0	279303.74	1929.3815					117,595,201	10,172,314	-	106,685,919	736,968	1,450,162	0.000642	0.059876
42	15244.91146	0	121938.24	595.53562					214,608,554	23,745,968	-	189,934,961	927,626	1,451,041	0.000642	0.060518
43	34.422756	0	208.99	35.217115					434,003	53,618	-	325,530	54,855	1,501,749	0.000642	0.06116
44	78.22584	0	1976.0942	228.66332					872,033	29,880	-	754,811	87,343	1,536,993	0.002618	0.063778
45	657.093072	0	13734.85	797.07416					2,325,324	100,596	-	2,102,702	122,026	1,608,086	0.002618	0.066396
46	1809.402988	0	39322.349	1539.9196					4,748,684	201,358	-	4,375,957	171,369	1,631,198	0.006532	0.072928
47	3886.174208	0	72517.187	1548.261					11,933,806	594,944	-	11,101,835	237,027	1,728,804	0.002618	0.075546
48	4123.370944	0	58663.073	833.47622					24,300,963	1,575,008	-	22,407,591	318,364	1,815,538	0.006532	0.082078
49	3371.298648	0	34533.883	286.67865					59,488,879	5,251,244	-	53,791,095	446,540	1,819,927	0.002618	0.084696
50	12.682068	0	170.45619	49.762332					362,774	19,754	-	265,508	77,511	1,916,445	0.006532	0.091228
51	84.310072	0	2334.7237	288.60594					1,034,240	32,204	-	891,797	110,239	1,960,958	0.006532	0.09776
52	697.212616	0	20489.03	1082.4887					3,409,175	106,738	-	3,136,716	165,721	1,963,079	0.000642	0.098402
53	2573.1411	0	48394.247	1988.3181					5,893,134	286,350	-	5,385,516	221,268	1,989,149	0.002618	0.10102
54	8742.807656	0	91273.623	2033.6492					15,623,099	1,338,458	-	13,973,304	311,336	2,106,807	0.000642	0.101662
55	15030.66057	0	73196.014	1047.2931					34,100,064	5,741,276	-	27,958,752	400,036	2,232,929	0.002618	0.10428
56	13003.06286	0	36656.728	350.41341					77,897,514	20,253,992	-	57,097,707	545,815	2,452,686	0.006532	0.110812
57	631.652244	0	3344.6863	191.55987					6,492,054	983,882	-	5,209,792	298,380	2,675,238	0.006532	0.117344
58	8441.437312	0	52962.472	1000.3079					23,836,599	3,224,384	-	20,230,127	382,089	2,722,615	0.006532	0.123876
59	59674.02661	0	213921.41	3207.2613					42,376,408	9,135,644	-	32,749,757	491,008	2,751,575	0.006532	0.130408
60	243137.2213	0	600112.44	5599.0395					94,463,466	27,057,336	-	66,783,045	623,085	2,755,683	0.000642	0.13105
61	464992.0208	0	846059.87	5058.2229					201,486,545	71,186,776	-	129,525,393	774,376	2,956,151	0.006532	0.137582
62	496407.2738	0	515963.96	2453.3971					387,633,550	189,613,168	-	197,083,256	937,126	3,004,942	0.008986	0.146568
63	255662.2848	0	178605.41	751.70987					677,600,321	398,227,858	-	278,201,575	1,170,888	3,023,352	0.006532	0.1531
64	21.3144	0	262.89117	45.182336					513,065	33,200	-	409,488	70,377	3,057,149	0.006532	0.159632
65	150.367448	0	2613.9869	263.50036					1,156,553	57,436	-	998,467	100,649	3,061,586	0.006532	0.166164
66	375.171952	0	14345.103	957.51621					2,400,152	57,436	-	2,196,127	146,589	3,106,435	0.006532	0.172696
67	1436.483988	0	44083.303	1727.0345					5,257,826	159,858	-	4,905,776	192,192	3,151,794	0.008986	0.181682
68	4026.050456	0	101769.87	1683.0419					16,454,220	616,358	-	15,580,201	257,661	3,157,147	0.002618	0.1843
69	5591.409208	0	87696.298	919.01672					35,984,234	2,135,756	-	33,497,440	351,038	3,169,259	0.002618	0.186918
70	4397.373864	0	42408.44	300.88043					73,374,914	6,849,492	-	66,056,761	468,661	3,258,050	0.006532	0.19345
71	8.419188	0	95.666723	25.996082					202,620	13,114	-	149,014	40,492	3,367,274	0.002618	0.196068
72	256.841508	0	1805.571	180.50382					856,729	98,106	-	689,676	68,947	3,533,830	0.000642	0.19671
73	640.828392	0	8916.6306	620.5076					1,558,170	98,106	-	1,365,069	94,995	3,847,047	0.002618	0.199328
74	1457.367452	0	30780.409	1234.4115					3,724,926	162,182	-	3,425,374	137,371	3,867,735	0.002618	0.201946
75	2374.64328	0	60536.277	1227.5071					9,819,110	363,540	-	9,267,648	187,922	3,898,794	0.006532	0.208478
76	1225.103572	0	45415.45	660.66162					18,067,691	467,954	-	17,347,384	252,354	3,906,609	0.008986	0.217464
77	415.09794	0	24927.331	234.28234					39,839,114	646,570	-	38,827,619	364,926	4,098,622	0.006532	0.223996
78	32.291316	0	2177.032	89.029421					3,579,989	50,298	-	3,391,016	138,675	4,266,721	0.002618	0.226614
79	86.483012	0	14771.852	504.37158					5,868,108	33,034	-	5,642,419	192,655	4,482,311	0.006532	0.233146
80	409.869936	0	79292.005	1674.7533					12,458,149	62,748	-	12,139,009	256,392	4,563,086	0.002618	0.235764
81	1427.533932	0	199891.55	2958.0874					22,732,826	158,862	-	22,244,776	329,188	4,774,456	0.002618	0.238382
82	1113.588424	0	271037.89	2836.9639					42,098,659	170,482	-	41,493,859	434,318	5,177,630	0.006532	0.244914
83	1404.588416	0	214325.81	1453.9072					82,958,099	536,512	-	81,866,237	555,350	5,338,513	0.002618	0.247532
84	596.057196	0	98538.972	457.58118					155,128,676	928,438	-	153,487,495	712,743	5,956,401	0.008986	0.256518
85	6.714036	0	338.61023	68.798556					645,051	10,458	-	527,430	107,163	6,079,444	0.000642	0.25716
86	227.289524	0	7197.3142	411.44362					2,993,143	86,818	-	2,749,165	157,160	6,437,864	0.008986	0.266146
87	662.514632	0	27265.443	1426.5882					4,493,960	101,426	-	4,174,134	218,400	6,466,827	0.008986	0.275132
88	5056.78164	0	128316.44	2633.8655					15,135,443	562,740	-	14,279,595	293,108	6,506,734	0.008986	0.284118
89	2778.007344	0	157840.42	2554.673					24,980,573	425,292	-	24,164,180	391,101	6,516,504	0.006532	0.29065
90	2558.854144	0	130088.87	1348.271					51,182,582	977,408	-	49,690,174	515,000	6,599,972	0.002618	0.293268
91	2175.560808	0	73461.708	445.26172					118,508,614	3,388,724	-	114,426,336	693,554	6,669,880	0.008986	0.302254
92	211.438848	0	1280.9872	135.79998					2,536,178	329,344	-	1,995,307	211,526	6,673,026	0.008986	0.31124
93	1681.420972	0	18360.437	794.10598					7,958,733	642,254	-	7,013,154	303,325	6,724,802	0.008986	0.320226
94	7336.454992	0	115638.58	2702.3469					19,240,261	1,123,156	-	17,703,396	413,709	6,728,846	0.002618	0.322844
95	20165.96784	0	338163.47	4608.4001					40,389,254	2,244,154	-	37,632,258	512,842	6,838,122	0.008986	0.33183
96	44910.03442	0	618179.34	4425.5207					102,191,503	6,875,388	-	94,638,601	677,514	6,973,564	0.008986	0.340816
97	41535.7481	0	460228.79	2192.708					192,497,037	15,865,450	-	175,794,037	837,551	7,110,033	0.008986	0.349802
98	33555.47306	0	210558.4	666.36987					381,277,635	52,267,092	-	327,972,584	1,037,959	7,435,837	0.006532	0.356334

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**								
99	99	2016	0.96	0	4051.7	0	295300.84	259.45	16600	55.76	0	66130.56	0.000642	1989 Hourly	2016	-4.76	400	10.230912	0	145.04243	42.45582					307,989	15,936	-	225,923	66,131	7,473,096	0.008986	0.36532
100	100	2016	4.32	0	6338.58	0	295304.16	407.42	16600	121.05	0	102361.39	0.002618	1989 Hourly	2016	-3.05	400	187.742016	0	2008.7524	267.98212					941,358	71,712	-	767,285	102,361	7,599,758	0.000642	0.365962
101	101	2016	1.66	0	9511.93	0	295302.44	666.88	16600	230.73	0	152987.81	0.006532	1989 Hourly	2016	-1.53	400	179.995792	0	14335.699	999.31637					2,375,231	27,556	-	2,194,688	152,988	7,642,948	0.008986	0.374948
102	102	2016	17.02	0	13145.42	0	295303.84	1064.21	16600	402.78	0	210410.62	0.008986	1989 Hourly	2016	0	400	2538.832552	0	47578.284	1890.7498					5,787,655	282,532	-	5,294,712	210,411	7,672,568	0.006532	0.38148
103	103	2016	15.37	0	18344.8	0	295302.22	1939.16	16600	753.9	0	291964.15	0.006532	1989 Hourly	2016	1.53	400	1666.587544	0	90338.505	1907.1098					14,377,251	255,142	-	13,830,145	291,964	7,880,893	0.008986	0.390466
104	104	2016	48.85	0	24880.27	0	295303.94	3681.89	16600	1391.4	0	395242.89	0.002618	1989 Hourly	2016	3.05	400	2122.96238	0	90630.991	1034.7459					35,824,561	810,910	-	34,618,408	395,243	8,184,228	0.006532	0.396998
105	105	2016	63.45	0	31562.04	0	295301.22	6991.21	16600	2062.21	0	532003.73	0.000642	1989 Hourly	2016	4.76	400	676.19934	0	41786.21	341.54639					66,672,828	1,053,270	-	65,087,555	532,004	8,199,054	0.008986	0.405984
106	106	2016	7.84	0	6714.47	0	295302.88	377.56	16600	124.33	0	80996.07	0.000642	1990 Hourly	2016	-4.76	400	83.552448	0	535.94806	51.999477					1,045,950	130,144	-	834,810	80,996	8,229,076	0.006532	0.412516
107	107	2016	11.56	0	9338.97	0	295301.53	561.2	16600	240	0	110375.13	0.002618	1990 Hourly	2016	-3.05	400	502.383728	0	5867.8616	288.96209					2,543,624	191,896	-	2,241,353	110,375	8,696,342	0.006532	0.419048
108	108	2016	35.82	0	13037.39	0	295307.09	952.47	16600	538.5	0	151044.68	0.006532	1990 Hourly	2016	-1.53	400	3884.005584	0	45858.785	986.62385					7,766,291	594,612	-	7,020,635	151,045	8,706,015	0.000642	0.41969
109	109	2016	67.89	0	16164.34	0	295304.62	1476.26	16600	891.55	0	191892.87	0.008986	1990 Hourly	2016	0	400	10126.98836	0	129500.1	1724.3493					15,730,184	1,126,974	-	14,411,317	191,893	9,201,907	0.006532	0.426222
110	110	2016	185.49	0	20860.55	0	295300.5	2726.64	16600	1477.98	0	249161.79	0.006532	1990 Hourly	2016	1.53	400	20112.90329	0	201391.2	1627.5248					34,159,771	3,079,134	-	30,831,476	249,162	9,607,908	0.006532	0.432754
111	111	2016	537.26	0	24562.74	0	295300.84	4440.88	16600	2207.08	0	308156.14	0.002618	1990 Hourly	2016	3.05	400	23348.67489	0	141926.84	806.75277					63,438,604	8,918,516	-	54,211,932	308,156	9,650,681	0.008986	0.44174
112	112	2016	1633.68	0	30612.61	0	295302.69	7747.15	16600	3605.9	0	402660.65	0.000642	1990 Hourly	2016	4.76	400	17410.4545	0	70867.819	258.50814					137,907,759	27,119,088	-	110,386,010	402,661	9,820,377	0.002618	0.444358
113	113	2016	1.7	0	11111.67	0	296218.81	627.3	16600	156.25	0	156023.98	0.000642	1991 Hourly	2016	-4.76	400	18.11724	0	1114.6394	100.1674					1,920,442	28,220	-	1,736,198	156,024	9,998,358	0.008986	0.453344
114	114	2016	9.07	0	17447.44	0	296216.56	1023.76	16600	293.3	0	227608.65	0.002618	1991 Hourly	2016	-3.05	400	394.171316	0	13397.181	595.87945					5,495,505	150,562	-	5,117,334	227,609	10,204,893	0.006532	0.459876
115	115	2016	24.16	0	22159.25	0	296215.94	1498.68	16600	486.36	0	298177.6	0.006532	1991 Hourly	2016	-1.53	400	2619.697792	0	70397.799	1947.6961					11,476,606	401,056	-	10,777,373	298,178	10,465,037	0.006532	0.466408
116	116	2016	24.56	0	29618.93	0	296215.34	2404.26	16600	905.21	0	387065.81	0.008986	1991 Hourly	2016	0	400	3663.556256	0	240926.81	3478.1734					27,606,113	407,696	-	26,811,352	387,066	11,865,282	0.006532	0.47294
117	117	2016	54.86	0	37099.63	0	296217.28	4136.92	16600	1359.2	0	501283.51	0.006532	1991 Hourly	2016	1.53	400	5948.535632	0	329381.44	3274.3839					51,837,777	910,676	-	50,425,817	501,284	12,253,783	0.002618	0.475558
118	118	2016	125.96	0	46892.52	0	296218.19	6819.06	16600	2088.54	0	620718.05	0.002618	1991 Hourly	2016	3.05	400	5474.070448	0	256398.81	1625.0399					100,648,558	2,090,936	-	97,936,904	620,718	12,323,159	0.002618	0.478176
119	119	2016	464.94	0	59762.87	0	296214.59	11631.94	16600	3307.14	0	810884.41	0.000642	1991 Hourly	2016	4.76	400	4954.958568	0	126887.56	520.58779					206,173,066	7,718,004	-	197,644,178	810,884	12,338,716	0.006532	0.484708
120	120	2016	1.66	0	2932.38	0	295303.09	189.62	16600	63.7	0	44132.9	0.000642	1992 Hourly	2016	-4.76	400	17.690952	0	119.92085	28.333322					258,482	27,556	-	186,793	44,133	12,498,597	0.006532	0.49124
121	121	2016	1.33	0	4055.94	0	295306.19	266.99	16600	116.62	0	60946.13	0.002618	1992 Hourly	2016	-3.05	400	57.800204	0	1238.3237	159.55697					556,028	22,078	-	473,004	60,946	12,926,347	0.006532	0.497772
122	122	2016	3.16	0	5703.51	0	295304.56	384.95	16600	234.5	0	85086.48	0.006532	1992 Hourly	2016	-1.53	400	342.642592	0	8736.3743	555.78489					1,475,016	52,456	-	1,337,473	85,086	13,323,936	0.006532	0.504304
123	123	2016	5.18	0	8344.68	0	295303.47	654.87	16600	392.84	0	124148	0.008986	1992 Hourly	2016	0	400	772.688168	0	29457.223	1115.5939					3,488,260	85,988	-	3,278,124	124,148	13,431,710	0.008986	0.51329
124	124	2016	34.59	0	10544.22	0	295302.41	1069.62	16600	675.66	0	169510.4	0.006532	1992 Hourly	2016	1.53	400	3750.635208	0	46535.978	1107.2419					7,868,012	574,194	-	7,124,308	169,510	13,744,926	0.006532	0.519822
125	125	2016	122.68	0	14780.97	0	295305	2074.65	16600	1178.88	0	231759.48	0.002618	1992 Hourly	2016	3.05	400	5331.525584	0	45618.624	606.74632					19,693,237	2,036,488	-	17,424,990	231,759	14,553,508	0.006532	0.526354
126	126	2016	433.87	0	18046.81	0	295302.5	3893.64	16600	1950.58	0	313182	0.000642	1992 Hourly	2016	4.76	400	4623.839364	0	22599.521	201.06284					42,717,171	7,202,242	-	35,201,747	313,182	14,626,877	0.008986	0.53534
127	127	2016	6.27	0	8816.26	0	296391.94	541.72	16600	97.87	0	119557.13	0.000642	1993 Hourly	2016	-4.76	400	66.820644	0	553.94801	76.755677					1,086,486	104,082	-	862,847	119,557	15,904,037	0.006532	0.541872
128	128	2016	8.02	0	13264.54	0	296389.09	824.63	16600	178.09	0	179656.38	0.002618	1993 Hourly	2016	-3.05	400	348.539576	0	6184.4541	470.3404					2,675,070	133,132	-	2,362,282	179,656	16,236,122	0.006532	0.548404
129	129	2016	17.67	0	18326.73	0	296391.62	1233.1	16600	309.62	0	238735.28	0.006532	1993 Hourly	2016	-1.53	400	1915.979304	0	37064.672	1559.4188					6,206,379	293,322	-	5,674,322	238,735	16,435,687	0.006532	0.554936
130	130	2016	43.85	0	24942.09	0	296389.81	2083.17	16600	624.82	0	333766.26	0.008986	1993 Hourly	2016	0	400	6540.99926	0	140040.67	2999.2236					16,645,993	727,910	-	15,584,317	333,766	16,509,260	0.006532	0.561468
131	131	2016	74.68	0	31492.21	0	296387.91	3608.48	16600	1131.29	0	436758.01	0.006532	1993 Hourly	2016	1.53	400	8097.642016	0	232714.4	2852.9033					37,303,268	1,239,688	-	35,626,822	436,758	16,809,280	0.002618	0.564086
132	132	2016	173.8	0	38949.43	0	296390.62	6185.58	16600	1634.64	0	546739.86	0.002618	1993 Hourly	2016	3.05	400	7553.13944	0	166683.6	1431.365					67,100,116	2,885,080	-	63,668,296	546,740	16,823,195	0.006532	0.570618
133	133	2016	491.16	0	49072.21	0	296389.25	11053.5	16600	2567.63	0	726524.18	0.000642	1993 Hourly	2016	4.76	400	5234.390352	0	80891.537	466.42852					134,879,059	8,153,256	-	125,999,279	726,524	16,856,197	0.006532	0.57715
134	134	2016	6.35	0	6323.01	0	295753.44	391.43	16600	98.24	0	89690.62	0.000642	1994 Hourly	2016	-4.76	400	67.67322	0	398.79275	57.581378					816,273	105,410	-	621,173	89,691	17,174,043	0.006532	0.583682
135	135	2016	11.5	0	9095.12	0	295759.53	565.15	16600	155.19	0	130213.31	0.002618	1994 Hourly	2016	-3.05	400	499.7762	0	3695.2328	340.89845					1,732,585	190,900	-	1,411,472	130,213	17,311,732	0.006532	0.590214
136	136	2016	12.71	0	12635.82	0	295750.97	862.77	16600	259.63	0	178717.95	0.006532	1994 Hourly	2016	-1.53	400	1378.160552	0	21429.127	1167.3856					3,670,342	210,986	-	3,280,638	178,718	18,029,476	0.006532	0.596746
137	137	2016	27.81	0	18356.34	0	295755	1471.69	16600	471.08	0	252400.87	0.008986	1994 Hourly	2016	0	400	4148.350956	0	77704.68	2268.0742					9,361,352	461,646	-	8,647,305	252,401	20,129,804	0.006532	0.603278
138	138	2016	91.59	0	24543.97	0	295756.94	2655.33	16600	964.62	0	345784.36	0.006532	1994 Hourly	2016	1.53	400	9931.213608	0	154649.05	2258.6634					25,541,783	1,520,394	-	23,675,604	345,784	20,151,841	0.008986	0.612264
139	139	2016	281.96	0	32588.92	0	295756.06	4958.5	16600	1432.11	0	477292.97	0.002618	1994 Hourly	2016	3.05	400	12253.64325	0	122184.46	1249.553					51,828,747	4,680,536	-	46,670,918	477,293	20,268,975	0.006532	0.618796
140	140	2016	971.71	0	39329.16	0	295755.47	8877.44	16600	2320.79	0	616166.18	0.000642	1994 Hourly	2016	4.76	400	10355.70781	0	58598.371	395.57869					108,021,273	16,130,386	-	91,274,721	616,166	21,539,088	0.008986	0.627782
141	141	2016	11.91	0	13293.68	0	295485.34	739.12	16600	122.55	0	212360.17	0.000642	1995 Hourly	2016	-4.76	400	126.927252	0	1045.9082	136.33523					2,039,207	197,706	-	1,629,140	212,360	22,382,924	0.002618	0.6304
142	142	2016	47.81	0	20483.26	0	295483.91	1251.89	16600	344.6	0	313929.26	0.002618	1995 Hourly	2016	-3.05	400	2077.765228	0	18479.235	821.8668					8,166,107	793,646	-	7,058,531	313,929	22,408,255	0.002618	0.633018
143	143	2016	42.14	0	26100.51	0	295481.44	1830.2	16600	435.97	0	406305.22	0.006532	1995 Hourly	2016	-1.53	400	4569.290768	0	74327.885	2653.9857					12,484,869	699,524	-	11,379,039	406,305	22,722,477	0.008986	0.642004
144	144	2016	111.64	0	34341.26	0	295482.75	2939.57	16600	854.52	0	518691.78	0.008986	1995 Hourly	2016	0	400	16653.07086	0	263696.81	4660.9643					31,717,209	1,853,224	-	29,345,293	518,692	22,915,802	0.006532	0.648536
145	145	2016	265.16	0	42634.91	0	295482.44	5101.94	16600	1274.54	0	661983.76	0.006532	1995 Hourly	2016	1.53	400	28751.61699	0	354948.21	4324.0779					59,403,538	4,401,656	-	54,339,898	661,984	23,184,178	0.006532	0.655068
146	146	2016	807.03	0	54324.04	0	295484.03	8858.78	16600	2165.14	0	843338.21	0.002618	1995 Hourly	2016	3.05	400	35072.55536	0	307926.94	2207.8594					131,859,188	13,396,698	-	117,619,152	843,338	24,845,458	0.008986	0.664054
147	147	2016	2507.52	0	66437.39	0	295481.59	13975.81	16600	3391.88	0	1035810.9	0.000642	1995 Hourly	2016	4.76	400	26723.14214	0	144673.19	664.99057					268,008,297	41,624,832	-	225,347,654	1,035,811	24,959,031	0.002618	0.666672
148	148	2016	0	0	5912.73	0	295393.72	360.15	16600	53.49	0	77460.04	0.000642	1996 Hourly	2016	-4.76	400	0	0	203.04658	49.729346					393,732	-	-	316,272	77,460	25,038,455	0.006532	0.673204
149	149	2016	2.16	0	6777.33	0	295391.88	438.29	16600	129.29	0	106906.46	0.002618	1996 Hourly	2016	-3.05	400	93.871008	0	2293.9989	279.88111					1,019,003	35,856	-	876,241	106,906	25,863,228	0.008986	0.68219
150	150	2016	3.01	0	10563.07	0	295390.94	711.63	16600	299.61	0	160108.92	0.006532	1996 Hourly	2016	-1.53	400	326.377912	0	20672.483	1045.8315					3,374,876	49,966	-	3,164,801	160,109	25,870,702	0.008986	0.691176
151	151	2016	9.7	0	14353.29	0	295389.16	1152.67	16600	505.92	0	217228.4	0.008986	1996 Hourly	2016	0	400	1446.92572	0	65252.886	1952.0144					7,639,865	161,020	-	7,261,616	217,228	26,292,701	0.008986	0.700162
152	152	2016	8.89	0	18697.87	0	295389.97	1985.77	16600	818.88	0	289130.84	0.006532	1996 Hourly	2016	1.53	400	963.953368	0	100013.49	1888.6026					15,748,017	147,574	-	15,311,312	289,131	27,727,134	0.008986	0.709148
153	153	2016	19.44	0	25673.7	0	295388.22	3735.87	16600	1313.93	0	393833.96	0.002618	1996 Hourly	2016	3.05	400	844.839072	0	88314.158	1031.0573					34,449,983	322,704	-	33,733,445	393,834	28,742,106	0.006532	0.71568
154	154	2016	50.08	0	32773.75	0	295388.06	6941.99	16600	2262.07	0	523953.89	0.000642	1996 Hourly	2016	4.76	400	533.712576	0	47595.644	336.3784					75,491,799	831,328	-	74,136,517	523,954	29,134,599	0.002618	0.718298
155	155	2016	3.47	0	8002.03	0	296243.53	465.94	16600	98.15	0	119579.89	0.000642	1997 Hourly	2016	-4.76	400	36.980484	0	504.22631	76.770289					962,581	57,602	-	785,399	119,580	29,735,500	0.006532	0.72483
156	156	2016	9.72	0	11819.75	0	296242.19	729.56	16600	318.73	0	172024.7	0.002618	1997 Hourly	2016	-3.05	400	422.419536	0	9862.8147	450.36066					4,100,686	161,352	-	3,767,309	172,025	30,100,556	0.008986	0.733816
157	157	2016	7.92	0	15092.68	0	296243.31	1012.01	16600	330.15	0	225510.09	0.006532	1997 Hourly	2016	-1.53	400	858.775104	0	32547.965	1473.0319					5,339,830	131,472	-	4,982,848	225,510	30,736,428	0.002618	0.736434
158	158	2016	17.39	0	20543.94	0	296245.03	1630.26	16600	581.19	0	299330.68	0.008986	1997 Hourly	2016	0	400	2594.024564	0	107292.23	2689.7855					12,527,937	288,674	-	11,939,932	299,331	31,183,005	0.002618	0.739052
159	159	2016	42.33	0	27760.05	0	296240.03	3072.2	16600	1206.81	0	398521.46	0.006532	1997 Hourly	2016	1.53	400	4589.892696	0	218829.22	2603.1422					34,602,305	702,678	-	33,501,106	398,521	32,699,877	0.002618	0.74167
160	160	2016	110.81	0	35086.9	0	296245.62	5232.61	16600	1650.45	0	524980.51	0.002618	1997 Hourly	2016	3.05	400	4815.669628	0	151606.22	1374.399					60,273,601	1,839,446	-	57,909,174	524,981	32,769,647	0.008986	0.750656
161	161	2016	350.06	0	45686.61	0	296242.72	9678.02	16600	2942.74	0	681241.71	0.000642	1997 Hourly	2016	4.76	400	3730.659432	0	86312.929	437.35718					140,936,052	5,810,996	-	134,443,815	681,242	33,547,314	0.006532	0.757188
162	162	2016	0.8	0	4818.46	0	296283.31	311.81	16600	80.56	0	80568.96	0.000642	1998 Hourly	2016	-4.76	400	8.52576	0	249.20844	51.725272					482,024	13,280	-	388,175	80,569	35,055,849	0.002618	0.759806
163	163	2016	0.31	0	7557.1	0	296279.28	484.54	16600	126.41	0	126335.61	0.002618	1998 Hourly	2016	-3.05	400	13.472228	0	2500.9571	330.74663					1,086,775	5,146	-	955,293	126,336	35,311,786	0.006532	0.766338
164	164	2016	5.7	0	10025.45	0	296280.16	690.46	16600	271.34	0	163050.97	0.006532	1998 Hourly	2016	-1.53	400	618.05784	0	17769.036	1065.0489					2,977,977	94,620	-	2,720,306	163,051	36,360,258	0.002618	0.768956
165	165	2016	4.91	0	13991.94	0	296280.56	1106.29	16600	362.74	0	237769.08	0.008986	1998 Hourly	2016	0	400	732.412916	0	45607.871	2136.593					5,394,711	81,506	-	5,075,436	237,769	36,528,841	0.002618	0.771574
166	166	2016	15.32	0	19619.26	0	296281.56	2131.08	16600	841.39	0	325388.15	0.006532	1998 Hourly	2016	1.53	400	1661.165984	0	107826.66	2125.4354					17,087,149	254,312	-	16,507,449	325,388	36,769,665	0.002618	0.774192
167	167	2016	27.94	0	25232.05	0	296281.72	3739.92	16600	1243.07	0	423930.17	0.002618	1998 Hourly	2016	3.05	400	1214.238872	0	82114.105	1109.8492					32,252,939	463,804	-	31,365,204	423,930	37,651,804	0.002618	0.77681
168	168	2016	49.17	0	32587.51	0	296281.88	7266.44	16600	2192.53	0	565936.2	0.000642	1998 Hourly	2016	4.76	400	524.014524	0	45870.318	363.33104					72,831,252	816,222	-	71,449,093	565,936	38,160,241	0.006532	0.783342
169	169	2016	37.44	0	18943.36	0	295301.84	1016.62	16600	178.84	0	206093.37	0.000642	1999 Hourly	2016	-4.76	400	399.005568	0	2174.9872	132.31194					4,215,428	621,504	-	3,387,831	206,093	38,785,448	0.002618	0.78596
170	170	2016	124.08	0	25923.2	0	295300.88	1630.24	16600	446.14	0	280078.63	0.002618	1999 Hourly	2016	-3.05	400	5392.367904	0	30278.156	733.24585					13,905,183	2,059,728	-	11,565,376	280,079	39,850,869	0.002618	0.788578
171	171	2016	321.69	0	33556.28	0	295300.56	2638.06	16600	777.96	0	363680.68	0.006532	1999 Hourly	2016	-1.53	400	34881.23273	0	170520.76	2375.5622					31,809,178	5,340,054	-	26,105,444	363,681	39,981,297	0.002618	0.791196
172	172	2016	948.3	0	41808.81	0	295301	4408.73	16600	1126.09	0	470987.3	0.008986	1999 Hourly	2016	0	400	141455.6351	0	423065.22	4232.2919					63,293,250	15,741,780	-	47,080,483	470,987	41,965,289	0.006532	0.797728
173	173	2016	2272.75	0	50652.86	0	295302.53	7551.76	16600	1886.75	0	597088.8	0.006532	1999 Hourly	2016	1.53	400	246437.0098	0	624258.56	3900.184					133,894,022	37,727,650	-	95,569,284	597,089	42,220,225	0.000642	0.79837
174	174	2016	5584.4	0	55984.42	0	295301.44	11213.68	16600	2334.83	0	727653.38	0.002618	1999 Hourly	2016	3.05	400	242691.3227	0	342209.52	1904.9965					224,142,797	92,701,040	-	130,714,103	727,653	42,598,372	0.002618	0.800988
175	175	2016	13236.66	0	64910.76	0	295302.94	16352.73	16600	3409.88	0	929216.24	0.000642	1999 Hourly	2016	4.76	400	141065.733	0	142098.93	596.55683					441,995,675	219,728,556	-	221,337,902	929,216	44,169,940	0.006532	0.80752
176	176	2016	0.26	0	3978.83	0	295650.09	252.39	16600	58.93	0	68282.88	0.000642	2000 Hourly	2016	-4.76	400	2.770872	0	150.53131	43.837609					307,071	4,316	-	234,472	68,283	45,863,089	0.006532	0.814052
177	177	2016	5.14	0	6234.35	0	295649.75	401.37	16600	137.41	0	101920.73	0.002618	2000 Hourly	2016	-3.05	400	223.378232	0	2242.7412	266.82847					1,043,907	85,324	-	856,662	101,921	47,110,860	0.006532	0.820584
178	178	2016	3.12	0	8089.38	0	295652.41	553.11	16600	358.59	0	133978.62	0.006532	2000 Hourly	2016	-1.53	400	338.305344	0	18947.835	875.14835					3,086,541	51,792	-	2,900,771	133,979	47,537,089	0.002618	0.823202
179	179	2016	8.92	0	11671.39	0	295648.44	917.95	16600	398	0	194902.49	0.008986	2000 Hourly	2016	0	400	1330.574992	0	41741.886	1751.3938					4,988,188	148,072	-	4,645,213	194,902	51,998,010	0.002618	0.82582
180	180	2016	19.84	0	16619.68	0	295652.44	1705.88	16600	993.47	0	272895.83	0.006532	2000 Hourly	2016	1.53	400	2151.275008	0	107850.85	1782.5556					17,113,393	329,344	-	16,511,153	272,896	53,507,629	0.006532	0.832352
181	181	2016	74.18	0	20739.43	0	295654.41	2911.75	16600	1308.78	0	344359.92	0.002618	2000 Hourly	2016	3.05	400	3223.773784	0	71061.293	901.53427					28,719,099	1,231,388	-	27,143,351	344,360	55,032,564	0.000642	0.832994
182	182	2016	227.74	0	29139.36	0	295655.28	5908.33	16600	2375.27	0	488979.96	0.000642	2000 Hourly	2016	4.76	400	2427.070728	0	44435.29	313.92513					73,483,312	3,780,484	-	69,213,848	488,980	56,103,354	0.006532	0.839526
183	183	2016	1.2	0	5891.26	0	296597.41	360.14	16600	57.37	0	72849.67	0.000642	2001 Hourly	2016	-4.76	400	12.78864	0	216.98418	46.769488					430,751	19,920	-	337,982	72,850	60,864,102	0.008986	0.848512
184	184	2016	1.29	0	8621.89	0	296600.09	526.88	16600	123.61	0	107985.35	0.002618	2001 Hourly	2016	-3.05	400	56.061852	0	2790.1383	282.70565					1,195,151	21,414	-	1,065,752	107,985	61,923,459	0.000642	0.849154
185	185	2016	1.31	0	12181	0	296598.09	811.31	16600	238.27	0	152664.85	0.006532	2001 Hourly	2016	-1.53	400	142.044872	0	18958.26	997.2068					3,076,778	21,746	-	2,902,367	152,665	62,095,160	0.006532	0.855686
186	186	2016	5.5	0	16117.48	0	296599.59	1250.84	16600	355.08	0	214821.84	0.008986	2001 Hourly	2016	0	400	820.4218	0	51426.831	1930.3891					6,029,117	91,300	-	5,722,995	214,822	63,648,797	0.006532	0.862218
187	187	2016	13.83	0	19482.6	0	296598.84	2060.44	16600	724.69	0	281103.36	0.006532	2001 Hourly	2016	1.53	400	1499.603496	0	92224.298	1836.1671					14,629,527	229,578	-	14,118,845	281,103	64,559,387	0.000642	0.86286
188	188	2016	24.49	0	27061.53	0	296596.84	3910.72	16600	1146.15	0	393509.92	0.002618	2001 Hourly	2016	3.05	400	1064.306012	0	81201.387	1030.209					31,816,617	406,534	-	31,016,573	393,510	64,923,768	0.002618	0.865478
189	189	2016	48.8	0	34743.91	0	296600.44	7654.14	16600	2027.2	0	543807.29	0.000642	2001 Hourly	2016	4.76	400	520.07136	0	45217.892	349.12428					71,786,742	810,080	-	70,432,854	543,807	65,127,718	0.006532	0.87201
190	190	2016	4.17	0	11769.98	0	295302.41	693.97	16600	98.39	0	160996.89	0.000642	2002 Hourly	2016	-4.76	400	44.440524	0	743.46703	103.36					1,388,267	69,222	-	1,158,048	160,997	65,596,253	0.002618	0.874628
191	191	2016	21.82	0	16264.04	0	295300.69	1014.91	16600	209.79	0	218992.25	0.002618	2002 Hourly	2016	-3.05	400	948.271016	0	8932.7023	573.32171					3,993,237	362,212	-	3,412,033	218,992	67,319,179	0.000642	0.87527
192	192	2016	20.35	0	22670.79	0	295303.84	1539.76	16600	279.02	0	303049.19	0.006532	2002 Hourly	2016	-1.53	400	2206.57492	0	41318.844	1979.5173					6,966,463	337,810	-	6,325,604	303,049	71,313,266	0.006532	0.881802
193	193	2016	53.73	0	31701.05	0	295301.41	2639.38	16600	586.09	0	420287.47	0.008986	2002 Hourly	2016	0	400	8014.775148	0	166956.9	3776.7032					19,891,874	891,918	-	18,579,668	420,287	72,156,372	0.008986	0.890788
194	194	2016	63.83	0	39309.13	0	295302.59	4494.48	16600	953.47	0	533216.16	0.006532	2002 Hourly	2016	1.53	400	6921.163496	0	244819.86	3482.968					39,072,870	1,059,578	-	37,480,076	533,216	77,478,511	0.006532	0.89732
195	195	2016	168.72	0	51533.65	0	295298.09	8113.85	16600	1784.04	0	698799.71	0.002618	2002 Hourly	2016	3.05	400	7332.368736	0	240693.93	1829.4576					95,437,645	2,800,752	-	91,938,093	698,800	77,645,890	0.002618	0.899938
196	196	2016	638.31	0	66679.61	0	295303.22	13960.92	16600	3017.78	0	911944.92	0.000642	2002 Hourly	2016	4.76	400	6802.597332	0	129186.06	585.46864					212,732,284	10,595,946	-	201,224,393	911,945	81,636,318	0.000642	0.90058

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**								
197	197	2016	5.25	0	4713.91	0	295949.62	295.12	16600	73.86	0	77493.96	0.000642	2003 Hourl	2016	-4.76	400	55.9503	0	223.52475	49.751122					512,813	87,150	-	348,169	77,494	82,939,709	0.000642	0.901222
198	198	2016	2.89	0	6656.51	0	295949.38	422.4	16600	142.84	0	111153.51	0.002618	2003 Hourl	2016	-3.05	400	125.595932	0	2489.236	290.99989					1,109,943	47,974	-	950,816	111,154	83,010,346	0.000642	0.901864
199	199	2016	7.24	0	10021.16	0	295949	685.62	16600	268.07	0	157808.18	0.006532	2003 Hourl	2016	-1.53	400	785.041888	0	17547.384	1030.803					2,964,365	120,184	-	2,686,372	157,808	84,503,859	0.000642	0.902506
200	200	2016	18.27	0	13371.93	0	295948.44	1059.68	16600	440.84	0	216028.26	0.008986	2003 Hourl	2016	0	400	2725.292052	0	52971.406	1941.2299					6,414,192	303,282	-	5,894,882	216,028	85,323,060	0.000642	0.903148
201	201	2016	36.37	0	17476.85	0	295952.03	1844.37	16600	760.23	0	294569.84	0.006532	2003 Hourl	2016	1.53	400	3943.642744	0	86786.933	1924.1302					14,184,738	603,742	-	13,286,426	294,570	87,371,752	0.000642	0.90379
202	202	2016	113.39	0	23584.16	0	295950.41	3437.72	16600	1269.7	0	393243.48	0.002618	2003 Hourl	2016	3.05	400	4927.793332	0	78395.507	1029.5114					32,220,325	1,882,274	-	29,944,808	393,243	87,935,055	0.002618	0.906408
203	203	2016	486.14	0	29634.65	0	295951	6443.34	16600	2127.47	0	517981.74	0.000642	2003 Hourl	2016	4.76	400	5180.891208	0	40476.064	332.54428					71,634,735	8,069,924	-	63,046,829	517,982	89,542,694	0.000642	0.90705
204	204	2016	1.34	0	2269.68	0	295298.84	156.7	16600	55.14	0	38045.55	0.000642	2004 Hourl	2016	-4.76	400	14.280648	0	80.3464	24.425243					185,440	22,244	-	125,150	38,046	92,067,546	0.000642	0.907692
205	205	2016	1.51	0	3450.62	0	295301.16	228.99	16600	122.93	0	59105.71	0.002618	2004 Hourl	2016	-3.05	400	65.622788	0	1110.5156	154.73875					508,356	25,066	-	424,185	59,106	92,261,210	0.000642	0.908334
206	206	2016	2.98	0	5103.01	0	295301.56	355.82	16600	200.94	0	81469.8	0.006532	2004 Hourl	2016	-1.53	400	323.124976	0	6697.9052	532.16073					1,156,337	49,468	-	1,025,399	81,470	92,568,228	0.002618	0.910952
207	207	2016	7.6	0	7413.74	0	295300.81	588.92	16600	398.72	0	120880.01	0.008986	2004 Hourl	2016	0	400	1133.67376	0	26562.674	1086.2278					3,203,046	126,160	-	2,956,006	120,880	92,581,311	0.000642	0.911594
208	208	2016	17.73	0	8691.06	0	295302.09	884.3	16600	542.94	0	163732.36	0.006532	2004 Hourl	2016	1.53	400	1922.485176	0	30822.706	1069.4998					5,176,774	294,318	-	4,718,724	163,732	93,228,507	0.002618	0.914212
209	209	2016	71.33	0	11931.53	0	295303.09	1626.6	16600	1153.71	0	220948.96	0.002618	2004 Hourl	2016	3.05	400	3099.916204	0	36038.146	578.44438					15,170,552	1,184,078	-	13,765,525	220,949	93,618,324	0.008986	0.923198
210	210	2016	256.89	0	15352.77	0	295298.41	3286.78	16600	1582.5	0	307289.6	0.000642	2004 Hourl	2016	4.76	400	2737.728108	0	15597.877	197.27992					28,867,422	4,264,374	-	24,295,759	307,290	95,000,049	0.000642	0.92384
211	211	2016	10.45	0	11987.41	0	296224.16	713.37	16600	112.99	0	145756.35	0.000642	2005 Hourl	2016	-4.76	400	111.36774	0	869.56169	93.575577					1,673,684	173,470	-	1,354,457	145,756	102,414,546	0.002618	0.926458
212	212	2016	18.16	0	16405.48	0	296225.94	1047.89	16600	252.85	0	198205.28	0.002618	2005 Hourl	2016	-3.05	400	789.211808	0	10859.793	518.90142					4,647,787	301,456	-	4,148,126	198,205	103,753,651	0.002618	0.929076
213	213	2016	42.44	0	22050.05	0	296222.81	1519.46	16600	458.21	0	270471.46	0.006532	2005 Hourl	2016	-1.53	400	4601.820128	0	65996.411	1766.7196					11,078,529	704,504	-	10,103,553	270,471	122,959,176	0.002618	0.931694
214	214	2016	65.16	0	30169.69	0	296223.88	2538.24	16600	671.06	0	369370.58	0.008986	2005 Hourl	2016	0	400	9719.760816	0	181927.61	3319.164					21,696,699	1,081,656	-	20,245,672	369,371	123,493,003	0.006532	0.938226
215	215	2016	206.44	0	38572.01	0	296225.97	4557.04	16600	1216.87	0	485949.27	0.006532	2005 Hourl	2016	1.53	400	22384.53693	0	306593.28	3174.2206					50,849,975	3,426,904	-	46,937,122	485,949	136,842,902	0.002618	0.940844
216	216	2016	498.49	0	48795.5	0	296224.62	7840.26	16600	1865.5	0	628731.31	0.002618	2005 Hourl	2016	3.05	400	21663.77721	0	238311.32	1646.0186					99,931,671	8,274,934	-	91,028,005	628,731	140,995,835	0.000642	0.941486
217	217	2016	1368.3	0	61105.27	0	296229.88	13344.67	16600	2949.75	0	829657.65	0.000642	2005 Hourl	2016	4.76	400	14582.24676	0	115717.46	532.64021					203,788,708	22,713,780	-	180,245,270	829,658	141,033,202	0.008986	0.950472
218	218	2016	12.84	0	9754.28	0	295578.34	572.36	16600	111.83	0	132843.63	0.000642	2006 Hourl	2016	-4.76	400	136.838448	0	700.30717	85.28561					1,436,809	213,144	-	1,090,821	132,844	145,809,651	0.000642	0.951114
219	219	2016	6.98	0	13963.53	0	295581.88	838.53	16600	193	0	188141.27	0.002618	2006 Hourl	2016	-3.05	400	303.342424	0	7055.4087	492.55384					2,998,971	115,868	-	2,694,961	188,141	150,917,421	0.002618	0.953732
220	220	2016	22.42	0	19395.22	0	295578.91	1284.44	16600	393.02	0	254742.48	0.006532	2006 Hourl	2016	-1.53	400	2431.027504	0	49791.538	1663.9779					8,249,624	372,172	-	7,622,709	254,742	151,566,756	0.000642	0.954374
221	221	2016	46.82	0	27584.23	0	295584.69	2343.69	16600	710.12	0	355034.96	0.008986	2006 Hourl	2016	0	400	6984.027032	0	176018.79	3190.3442					20,720,360	777,212	-	19,588,113	355,035	155,553,748	0.002618	0.956992
222	222	2016	76.46	0	33141.59	0	295581.22	3853.72	16600	1114.29	0	445866.57	0.006532	2006 Hourl	2016	1.53	400	8290.649552	0	241222.46	2912.4004					38,644,445	1,269,236	-	36,929,342	445,867	159,213,337	0.000642	0.957634
223	223	2016	181.83	0	42167.72	0	295579.44	6833.48	16600	1756.19	0	568887.61	0.002618	2006 Hourl	2016	3.05	400	7902.113604	0	193874.75	1489.3478					77,641,794	3,018,378	-	74,054,528	568,888	167,216,052	0.002618	0.960252
224	224	2016	552.59	0	52551.99	0	295582.5	11686.52	16600	2991.16	0	726258.49	0.000642	2006 Hourl	2016	4.76	400	5889.062148	0	100916.89	466.25795					167,090,663	9,172,994	-	157,191,410	726,258	172,858,433	0.000642	0.960894
225	225	2016	34.75	0	24107.25	0	296275.09	1295.04	16600	136.84	0	271218.86	0.000642	2007 Hourl	2016	-4.76	400	370.3377	0	2117.8528	174.12251					4,146,905	576,850	-	3,298,836	271,219	183,710,218	0.006532	0.967426
226	226	2016	67.38	0	33514.46	0	296277.94	1989.36	16600	330.06	0	381704.11	0.002618	2007 Hourl	2016	-3.05	400	2928.253944	0	28959.747	999.30136					12,561,995	1,118,508	-	11,061,783	381,704	187,908,333	0.000642	0.968068
227	227	2016	141.33	0	43065.05	0	296272.75	2962.92	16600	526.91	0	494191.81	0.006532	2007 Hourl	2016	-1.53	400	15324.5815	0	148220.26	3228.0609					25,531,675	2,346,078	-	22,691,405	494,192	193,755,708	0.000642	0.96871
228	228	2016	400.92	0	53232.43	0	296274.5	4893.95	16600	912.99	0	613513.1	0.008986	2007 Hourl	2016	0	400	59804.27419	0	436725.68	5513.0287					55,869,461	6,655,272	-	48,600,676	613,513	195,162,245	0.000642	0.969352
229	229	2016	1200.55	0	66307.51	0	296277.06	8756.72	16600	1659.19	0	773559.54	0.006532	2007 Hourl	2016	1.53	400	130177.0772	0	718629.46	5052.8909					130,719,447	19,929,130	-	110,016,758	773,560	208,629,939	0.006532	0.975884
230	230	2016	2951.22	0	78647.78	0	296275.19	13329.23	16600	2392.53	0	947570.46	0.002618	2007 Hourl	2016	3.05	400	128256.4797	0	492621.66	2480.7395					238,104,996	48,990,252	-	188,167,173	947,570	218,587,940	0.000642	0.976526
231	231	2016	9568.47	0	92131.73	0	296277.22	17831.29	16600	3523.22	0	1168599.5	0.000642	2007 Hourl	2016	4.76	400	101973.0985	0	208393.43	750.24087					484,605,555	158,836,602	-	324,600,354	1,168,599	226,578,717	0.002618	0.979144
232	232	2016	1.68	0	5675.5	0	295693.59	369.53	16600	62.8	0	89361.17	0.000642	2008 Hourl	2016	-4.76	400	17.904096	0	228.82254	57.369871					473,671	27,888	-	356,421	89,361	228,746,211	0.000642	0.979786
233	233	2016	2.67	0	9631.22	0	295695.97	601.73	16600	147.08	0	135974.33	0.002618	2008 Hourl	2016	-3.05	400	116.034996	0	3708.5537	355.9808					1,596,856	44,322	-	1,416,560	135,974	268,133,993	0.000642	0.980428
234	234	2016	6.04	0	12099.85	0	295693.22	831.11	16600	250.49	0	178596.85	0.006532	2008 Hourl	2016	-1.53	400	654.924448	0	19797.783	1166.5946					3,309,752	100,264	-	3,030,891	178,597	269,310,327	0.000642	0.98107
235	235	2016	4.75	0	17363.5	0	295695.03	1360.21	16600	423.11	0	257369.71	0.008986	2008 Hourl	2016	0	400	708.5461	0	66017.181	2312.7242					7,682,890	78,850	-	7,346,670	257,370	310,520,417	0.000642	0.981712
236	236	2016	20.68	0	22832.57	0	295697.31	2463.21	16600	821.91	0	339427.84	0.006532	2008 Hourl	2016	1.53	400	2242.357216	0	122581.59	2217.1427					19,449,033	343,288	-	18,766,318	339,428	332,996,556	0.006532	0.988244
237	237	2016	18.64	0	29073.58	0	295695.03	4173.05	16600	1273.22	0	450543.1	0.002618	2008 Hourl	2016	3.05	400	810.072032	0	96910.672	1179.5218					37,777,031	309,424	-	37,017,064	450,543	342,774,064	0.000642	0.988886
238	238	2016	41.78	0	37696.12	0	295694.94	8017.49	16600	2054.9	0	597935.01	0.000642	2008 Hourl	2016	4.76	400	445.257816	0	49730.448	383.87428					78,753,240	693,548	-	77,461,757	597,935	345,277,676	0.002618	0.991504
239	239	2016	1.21	0	2866.29	0	296140.22	190.88	16600	65.01	0	45222.52	0.000642	2009 Hourl	2016	-4.76	400	12.895212	0	119.62868	29.032858					251,646	20,086	-	186,338	45,223	354,176,834	0.000642	0.992146
240	240	2016	1.01	0	4393.22	0	296141.34	286.68	16600	98.32	0	70956.54	0.002618	2009 Hourl	2016	-3.05	400	43.893388	0	1130.8226	185.76422					519,664	16,766	-	431,941	70,957	358,313,480	0.002618	0.994764
241	241	2016	3.45	0	6791.68	0	296140	480.54	16600	217.08	0	106578.9	0.006532	2009 Hourl	2016	-1.53	400	374.08764	0	9630.3751	696.17337					1,638,187	57,270	-	1,474,338	106,579	503,662,705	0.002618	0.997382
242	242	2016	14.72	0	9071.5	0	296141.72	737.87	16600	383.58	0	143436.7	0.008986	2009 Hourl	2016	0	400	2195.747072	0	31268.099	1288.9222					3,867,435	244,352	-	3,479,646	143,437	507,470,461	0.000642	0.998024
243	243	2016	73.32	0	12089.57	0	296140.97	1308.1	16600	714.04	0	188290.42	0.006532	2009 Hourl	2016	1.53	400	7950.175584	0	56387.076	1229.913					10,037,839	1,217,112	-	8,632,437	188,290	560,259,879	0.000642	0.998666
244	244	2016	198.62	0	17036.5	0	296143.66	2559.92	16600	1348.34	0	272143.93	0.002618	2009 Hourl	2016	3.05	400	8631.786856	0	60138.063	712.47281					26,540,230	3,297,092	-	22,970,994	272,144	632,843,057	0.000642	0.999308
245	245	2016	748.48	0	22292.46	0	296142.97	5058.09	16600	1829.26	0	379276.39	0.000642	2009 Hourl	2016	4.76	400	7976.701056	0	26179.929	243.49544					53,582,750	12,424,768	-	40,778,705	379,276	774,832,965	0.000642	0.99995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1	1	2016	1.14	0	3795.9	0	295300.59	245.95	16600	88.08	0	73283.38	0.000642	1975 Hourly	2016	-4.76	400	12.149208	0	214.64812	47.04793	**314**	**17,410**	-	**3,215**	426,550	18,924	-	334,343	73,283	0.001909	745,956	0	0.1578999
2	2	2016	9.5	0	5853.6	0	295300.91	394.53	16600	248.11	0	114962.27	0.002618	1975 Hourly	2016	-3.05	400	412.8586	0	3802.2175	300.97122					1,724,999	157,700	-	1,452,337	114,962	0.005927	1,390,866	1%	1.0328795
3	3	2016	2.11	0	8297.32	0	295304.84	567.27	16600	253.08	0	156466.98	0.006532	1975 Hourly	2016	-1.53	400	228.789832	0	13716.454	1022.0423					2,291,379	35,026	-	2,099,886	156,467	0.009822	4,243,151	2%	3.7054076
4	4	2016	8.24	0	11231.26	0	295302.38	920.1	16600	453.15	0	214140	0.008986	1975 Hourly	2016	0	400	1229.141024	0	45733.757	1924.262					5,440,369	136,784	-	5,089,445	214,140	0.00763	11,935,691	3%	8.2680186
5	5	2016	11.65	0	15301.87	0	295297.47	1612.92	16600	675.11	0	295868.5	0.006532	1975 Hourly	2016	1.53	400	1263.22348	0	67478.47	1932.613					10,819,704	193,390	-	10,330,445	295,869	0.002261	30,464,292	3%	10.535593
6	6	2016	19.71	0	21103.39	0	295303.72	3099.42	16600	1178.7	0	397785.45	0.002618	1975 Hourly	2016	3.05	400	856.572948	0	65121.613	1041.4023					25,599,537	327,186	-	24,874,566	397,785	0.000791	72,312,028	3%	8.1142816
7	7	2016	48.27	0	29697.19	0	295299.59	6598.76	16600	2053.92	0	562781.71	0.000642	1975 Hourly	2016	4.76	400	514.423044	0	39159.209	361.30586					62,359,716	801,282	-	60,995,652	562,782	0.000231	153,163,462	3%	4.2364039
8	8	2016	1.55	0	3215.05	0	296220.66	197.8	16600	89.51	0	89297.11	0.000642	1976 Hourly	2016	-4.76	400	16.51866	0	184.7542	57.328745					402,806	25,730	-	287,779	89,297	0.001909	265,931	3%	0.1269876
9	9	2016	1.08	0	5078.67	0	296217.66	312.69	16600	222.34	0	131299.56	0.002618	1976 Hourly	2016	-3.05	400	46.935504	0	2956.2233	343.74225					1,278,419	17,928	-	1,129,191	131,300	0.005927	1,192,807	4%	0.8186224
10	10	2016	0	0	7373.79	0	296223.19	484.1	16600	298.79	0	184003.81	0.006532	1976 Hourly	2016	-1.53	400	0	0	14391.399	1201.9129					2,387,219	-	-	2,203,215	184,004	0.009822	3,408,657	5%	3.1621412
11	11	2016	0.66	0	9881.49	0	296220.44	751.89	16600	424.38	0	245741.71	0.008986	1976 Hourly	2016	0	400	98.450616	0	37682.851	2208.235		13.04	m		4,450,204	10,956	-	4,193,507	245,742	0.00763	12,542,975	5%	6.7564835
12	12	2016	3.31	0	12211.87	0	296215.75	1224.55	16600	762.65	0	305752.42	0.006532	1976 Hourly	2016	1.53	400	358.907272	0	60835.016	1997.1748					9,674,081	54,946	-	9,313,383	305,752	0.002261	29,614,916	6%	7.9987606
13	13	2016	16.23	0	17774.48	0	296018.47	2451.88	16600	1707.42	0	410927.45	0.002618	1976 Hourly	2016	3.05	400	705.336324	0	79452.38	1075.8081					31,028,848	269,418	-	30,348,503	410,927	0.000791	59,376,788	6%	6.4190218
14	14	2016	75.87	0	24270.5	0	296216.97	4963.92	16600	2428.53	0	573882.78	0.000642	1976 Hourly	2016	4.76	400	808.561764	0	37840.531	368.43274					60,774,962	1,259,442	-	58,941,637	573,883	0.000231	111,808,837	6%	3.1868366
15	15	2016	1.67	0	7452.39	0	295305.47	457.69	16600	98.25	0	168557.35	0.000642	1977 Hourly	2016	-4.76	400	17.797524	0	470.07068	108.21382					928,477	27,722	-	732,197	168,557	0.001909	842,244	6%	0.293837
16	16	2016	9.58	0	10974.94	0	295302.84	695.03	16600	133.42	0	241112.39	0.002618	1977 Hourly	2016	-3.05	400	416.335304	0	3833.4759	631.23224					1,864,417	159,028	-	1,464,276	241,112	0.005927	3,494,038	6%	1.8195885
17	17	2016	21.58	0	16572.14	0	295302.88	1138.51	16600	278.36	0	338116.04	0.006532	1977 Hourly	2016	-1.53	400	2339.945296	0	30132.252	2208.574					5,309,365	358,228	-	4,613,021	338,116	0.009822	12,838,124	7%	7.4367473
18	18	2016	89.36	0	23494.38	0	295303.72	1908.91	16600	556.58	0	467273.82	0.008986	1977 Hourly	2016	0	400	13329.61674	0	117505.45	4198.9225					15,027,152	1,483,376	-	13,076,502	467,274	0.00763	37,581,679	8%	17.153465
19	19	2016	297.18	0	31069.22	0	295301.09	3507.59	16600	874.31	0	622250.11	0.006532	1977 Hourly	2016	1.53	400	32223.58402	0	177436.1	4064.5377					32,719,568	4,933,188	-	27,164,130	622,250	0.002261	107,644,419	8%	22.911578
20	20	2016	1056.52	0	41365.37	0	295302.03	6509.62	16600	1416.47	0	839056.15	0.002618	1977 Hourly	2016	3.05	400	45915.09138	0	153395.97	2196.649					76,970,094	17,538,232	-	58,592,806	839,056	0.000791	202,443,129	9%	17.042185
21	21	2016	4149.51	0	52801.42	0	295300.09	11897.57	16600	2446.15	0	1112147.6	0.000642	1977 Hourly	2016	4.76	400	44222.15797	0	82920.844	713.99873					199,154,207	68,881,866	-	129,160,194	1,112,148	0.000231	401,681,906	9%	7.6382399
22	22	2016	0.41	0	4050.39	0	295303.28	253.26	16600	80.91	0	94010.6	0.000642	1978 Hourly	2016	-4.76	400	4.369452	0	210.39435	60.354805					428,534	6,806	-	327,717	94,011	0.001909	639,952	9%	0.1625929
23	23	2016	5.73	0	6403.7	0	295304.81	403.12	16600	177.16	0	144758.7	0.002618	1978 Hourly	2016	-3.05	400	249.018924	0	2970.0673	378.97828					1,374,356	95,118	-	1,134,479	144,759	0.005927	1,535,721	9%	1.0553682
24	24	2016	7.56	0	8609.65	0	295297.44	605.47	16600	328.23	0	189548.34	0.006532	1978 Hourly	2016	-1.53	400	819.739872	0	18459.075	1238.1298					3,140,990	125,496	-	2,825,945	189,548	0.009822	6,732,102	10%	3.95493
25	25	2016	40.28	0	12093.98	0	295305.03	1021.96	16600	704.38	0	261433.42	0.008986	1978 Hourly	2016	0	400	6008.470928	0	76549.556	2349.2407					9,448,839	668,648	-	8,518,758	261,433	0.00763	17,977,251	11%	9.1833326
26	26	2016	75.49	0	16277.64	0	295301.81	1804.15	16600	866.79	0	361469.49	0.006532	1978 Hourly	2016	1.53	400	8185.471288	0	92161.919	2361.1187					15,723,899	1,253,134	-	14,109,296	361,469	0.002261	43,999,938	11%	11.784708
27	27	2016	291.12	0	22142.6	0	295299.69	3457.52	16600	1458.45	0	489446.53	0.002618	1978 Hourly	2016	3.05	400	12651.72586	0	84545.365	1281.371					37,615,914	4,832,592	-	32,293,875	489,447	0.000791	85,785,709	11%	9.0517874
28	28	2016	876.38	0	28290.23	0	295305.53	6661.8	16600	2407.2	0	652085.8	0.000642	1978 Hourly	2016	4.76	400	9339.756936	0	43720.355	418.63908					83,300,235	14,547,908	-	68,100,242	652,086	0	189,460,774	11%	4.2768756
29	29	2016	0.98	0	2840.89	0	295929.81	183.52	16600	95.36	0	76859.09	0.000642	1979 Hourly	2016	-4.76	400	10.444056	0	173.92247	49.343536					364,034	16,268	-	270,907	76,859	0.001909	252,712	12%	0.1178198
30	30	2016	0.96	0	4567.69	0	295927.66	298.33	16600	137.9	0	120388.46	0.002618	1979 Hourly	2016	-3.05	400	41.720448	0	1649.0375	315.17699					766,209	15,936	-	629,884	120,388	0.005927	1,348,263	12%	0.7810279
31	31	2016	5.9	0	6053.49	0	295927.38	425.8	16600	303.41	0	158622.07	0.006532	1979 Hourly	2016	-1.53	400	639.74408	0	11997.255	1036.1194					2,093,251	97,940	-	1,836,689	158,622	0.009822	3,279,184	13%	2.7813256
32	32	2016	7.65	0	9490.08	0	295929.91	778.69	16600	605.56	0	235011.65	0.008986	1979 Hourly	2016	0	400	1141.13214	0	51640.86	2111.8147					6,108,814	126,990	-	5,746,813	235,012	0.00763	8,158,645	14%	6.9973083
33	33	2016	10.39	0	12276.92	0	295932.41	1296.35	16600	856	0	303368.55	0.006532	1979 Hourly	2016	1.53	400	1126.600168	0	68645.072	1981.6034					10,984,886	172,474	-	10,509,044	303,369	0.002261	26,505,104	14%	8.4677582
34	34	2016	32.14	0	16036.86	0	295930.09	2275	16600	1364.31	0	398866.77	0.002618	1979 Hourly	2016	3.05	400	1396.765832	0	57279.872	1044.2332					22,811,639	533,524	-	21,879,248	398,867	0.000791	56,490,802	14%	5.95595
35	35	2016	84.84	0	22453.56	0	295931.56	4874.35	16600	2160.99	0	569843.23	0.000642	1979 Hourly	2016	4.76	400	904.156848	0	31151.072	365.83935					50,500,106	1,408,344	-	48,521,919	569,843	0.000231	106,784,107	14%	3.1293327
36	36	2016	4.98	0	8577.56	0	295479.31	525.42	16600	103.16	0	167336.21	0.000642	1980 Hourly	2016	-4.76	400	53.072856	0	568.08082	107.42985					1,134,865	82,668	-	884,861	167,336	0.001909	1,296,408	14%	0.3373196
37	37	2016	16.73	0	13830.27	0	295482.19	852.42	16600	208.34	0	248473.48	0.002618	1980 Hourly	2016	-3.05	400	727.065724	0	7543.5011	650.50357					3,407,590	277,718	-	2,881,398	248,473	0.005927	4,934,569	15%	2.2316356
38	38	2016	20.81	0	18586.07	0	295480.69	1292.82	16600	414.29	0	323765.24	0.006532	1980 Hourly	2016	-1.53	400	2256.453272	0	50296.55	2114.8345					8,369,234	345,446	-	7,700,023	323,765	0.009822	16,945,635	16%	8.4447002
39	39	2016	45.55	0	25664.52	0	295483.25	2173.9	16600	643.02	0	437763.37	0.008986	1980 Hourly	2016	0	400	6794.58418	0	148294.16	3933.7416					17,696,693	756,130	-	16,502,800	437,763	0.00763	47,747,891	17%	19.534665
40	40	2016	167.07	0	33380.23	0	295480.59	3997.61	16600	1157.03	0	579364.96	0.006532	1980 Hourly	2016	1.53	400	18115.60058	0	252278.43	3784.4119					41,974,654	2,773,362	-	38,621,928	579,365	0.002261	120,194,089	17%	26.112389
41	41	2016	440.4	0	42274.34	0	295482.44	6955.84	16600	1777.09	0	743067.31	0.002618	1980 Hourly	2016	3.05	400	19139.25552	0	196678.05	1945.3502					83,179,014	7,310,640	-	75,125,307	743,067	0.000791	206,845,681	17%	18.210389
42	42	2016	1303.55	0	52676.34	0	295482.25	12100.44	16600	3055.96	0	942652.71	0.000642	1980 Hourly	2016	4.76	400	13892.19306	0	103347.1	605.18304					183,558,371	21,638,930	-	160,976,788	942,653	0.000231	406,904,053	17%	7.7684825
43	43	2016	0.92	0	2241.79	0	296013.88	155.62	16600	105.74	0	53426.38	0.000642	1981 Hourly	2016	-4.76	400	9.804624	0	152.18409	34.299736					305,745	15,272	-	237,047	53,426	0	194,235	17%	0.099908
44	44	2016	2.37	0	3611.84	0	296013.03	253.77	16600	134.89	0	79778.01	0.002618	1981 Hourly	2016	-3.05	400	102.997356	0	1275.4925	208.85883					606,321	39,342	-	487,201	79,778	0.005927	806,458	18%	0.6643699
45	45	2016	1.41	0	6001.26	0	296011.75	413.99	16600	286.01	0	123427.31	0.006532	1981 Hourly	2016	-1.53	400	152.887992	0	11211.658	806.22719					1,863,254	23,406	-	1,716,420	123,427	0.009822	2,289,490	19%	2.7041827
46	46	2016	5.98	0	7975.13	0	296012.22	624.59	16600	351.69	0	167819.9	0.008986	1981 Hourly	2016	0	400	892.022248	0	25203.694	1508.0296					3,071,861	99,268	-	2,804,773	167,820	0.00763	11,002,075	20%	5.6125657
47	47	2016	24.38	0	11634.54	0	296013.44	1230.1	16600	733.15	0	240331.84	0.006532	1981 Hourly	2016	1.53	400	2643.552656	0	55717.065	1569.8476					9,174,903	404,708	-	8,529,863	240,332	0.002261	23,871,430	20%	8.0350132
48	48	2016	62.48	0	15475.34	0	296011.53	2313.58	16600	1153.87	0	327302.33	0.002618	1981 Hourly	2016	3.05	400	2715.305824	0	46748.397	856.8775					19,221,001	1,037,168	-	17,856,531	327,302	0.000791	49,244,668	20%	6.0569524
49	49	2016	259.48	0	20145.09	0	294904.69	4636.4	16600	1784.89	0	446276.12	0.000642	1981 Hourly	2016	4.76	400	2765.330256	0	23084.246	286.50927					40,710,414	4,307,368	-	35,956,770	446,276	0.000231	107,851,874	20%	2.9765688
50	50	2016	0	0	3078.03	0	296814.22	199.86	16600	91.24	0	75674.83	0.000642	1982 Hourly	2016	-4.76	400	0	0	180.29893	48.583241					356,514	-	-	280,839	75,675	0.001909	248,354	20%	0.1283101
51	51	2016	1.8	0	4665.66	0	296815.06	325.9	16600	144.61	0	108893.38	0.002618	1982 Hourly	2016	-3.05	400	78.22584	0	1766.3675	285.08287					813,474	29,880	-	674,701	108,893	0.005927	978,580	21%	0.8532062
52	52	2016	1.88	0	7569.31	0	296817.69	498.63	16600	177.57	0	156482.43	0.006532	1982 Hourly	2016	-1.53	400	203.850656	0	8779.5461	1022.1432					1,531,773	31,208	-	1,344,082	156,482	0.009822	3,102,708	22%	3.2570512
53	53	2016	11.58	0	10460.04	0	296814.75	829.39	16600	412.17	0	225749.81	0.008986	1982 Hourly	2016	0	400	1727.360808	0	38741.474	2028.5878					4,729,292	192,228	-	4,311,315	225,750	0.00763	12,043,389	23%	7.4528985
54	54	2016	51.97	0	13577.79	0	296813.97	1405.33	16600	643.13	0	296271.96	0.006532	1982 Hourly	2016	1.53	400	5635.169464	0	57039.28	1935.2484					9,891,258	862,702	-	8,732,284	296,272	0.002261	24,025,542	23%	9.1796156
55	55	2016	232.39	0	17897.06	0	296813.78	2618.05	16600	1131.48	0	391616.51	0.002618	1982 Hourly	2016	3.05	400	10099.39053	0	53014.933	1025.252					24,499,456	3,857,674	-	20,250,165	391,617	0.000791	63,695,817	23%	6.8540549
56	56	2016	861.16	0	23639.51	0	296814.25	5390.84	16600	1843.74	0	540282.96	0.000642	1982 Hourly	2016	4.76	400	9177.554352	0	27981.641	346.86166					58,420,649	14,295,256	-	43,585,110	540,283	0.000231	145,024,303	23%	3.4609193
57	57	2016	40.38	0	22406.54	0	295752.91	1190.58	16600	192.2	0	303551.64	0.000642	1983 Hourly	2016	-4.76	400	430.337736	0	2764.7967	194.88015					5,280,397	670,308	-	4,306,537	303,552	0.001909	9,681,124	23%	0.7643524
58	58	2016	123.57	0	29904.81	0	295759.59	1876.78	16600	420.91	0	408182.32	0.002618	1983 Hourly	2016	-3.05	400	5370.203916	0	32953.378	1068.6213					15,046,678	2,051,262	-	12,587,234	408,182	0.005927	28,752,096	24%	4.91341
59	59	2016	464.05	0	37489.73	0	295760.69	3082.06	16600	747.25	0	505702.71	0.006532	1983 Hourly	2016	-1.53	400	50317.49836	0	182988.76	3303.2501					36,223,133	7,703,230	-	28,014,201	505,703	0.009822	71,405,516	25%	20.132016
60	60	2016	1347.94	0	46277.24	0	295759.31	5305.09	16600	1159.97	0	635240.62	0.008986	1983 Hourly	2016	0	400	201068.9747	0	482370.37	5708.2722					76,691,255	22,375,804	-	53,680,210	635,241	0.00763	234,033,344	25%	47.671539
61	61	2016	3598.47	0	56161.94	0	295761.44	9347.72	16600	1926.53	0	810643.72	0.006532	1983 Hourly	2016	1.53	400	390186.4203	0	706747.13	5295.1248					168,742,908	59,734,602	-	108,197,662	810,644	0.002261	443,576,154	26%	61.059307
62	62	2016	10217.87	0	61897.92	0	295755.91	13435.37	16600	2591.51	0	976671.03	0.002618	1983 Hourly	2016	3.05	400	444056.3688	0	419950.97	2556.9248					331,002,392	169,616,642	-	160,409,079	976,671	0.000791	608,888,850	26%	35.173799
63	63	2016	22029.47	0	69384.19	0	295757.06	17646.44	16600	3254.53	0	1203923	0.000642	1983 Hourly	2016	4.76	400	234772.4677	0	144971.9	772.91857					592,706,053	365,689,202	-	225,812,928	1,203,923	0.000231	871,077,441	26%	11.329014
64	64	2016	2.47	0	3168.94	0	295299.5	198.59	16600	109.27	0	68904.16	0.000642	1984 Hourly	2016	-4.76	400	26.323284	0	222.30539	44.236471					456,176	41,002	-	346,270	68,904	0.001909	210,750	26%	0.1274948
65	65	2016	2.81	0	4621.42	0	295300.22	297.19	16600	155.45	0	95989.97	0.002618	1984 Hourly	2016	-3.05	400	122.119228	0	1880.7705	251.30174					861,036	46,646	-	718,400	95,990	0.005927	1,221,440	26%	0.7780434
66	66	2016	3.42	0	6906.73	0	295300.97	483.03	16600	227.13	0	139571.54	0.006532	1984 Hourly	2016	-1.53	400	370.834704	0	10246.916	911.6813					1,765,069	56,772	-	1,568,726	139,572	0.009822	3,594,483	27%	3.155152
67	67	2016	9.81	0	9123.13	0	295302.31	713.59	16600	406.3	0	197686.7	0.008986	1984 Hourly	2016	0	400	1463.334156	0	33308.655	1776.4127					4,067,260	162,846	-	3,706,728	197,687	0.00763	14,755,810	28%	6.4123197
68	68	2016	29.58	0	12431.29	0	295302.62	1285.12	16600	970.62	0	255268.98	0.006532	1984 Hourly	2016	1.53	400	3207.394896	0	78815.495	1667.417					12,812,356	491,028	-	12,066,059	255,269	0.002261	28,380,628	28%	8.3944038
69	69	2016	78.29	0	16560.66	0	295299.34	2387.01	16600	1137.58	0	346044.79	0.002618	1984 Hourly	2016	3.05	400	3402.389452	0	49320.7	905.94526					20,484,734	1,299,614	-	18,839,076	346,045	0.000791	56,465,653	29%	6.2491922
70	70	2016	321.07	0	22664.22	0	295302.25	4793.98	16600	2364.7	0	478587.75	0.000642	1984 Hourly	2016	4.76	400	3421.707204	0	34407.4	307.25334					59,402,431	5,329,762	-	53,594,081	478,588	0.000231	107,466,596	29%	3.0777352
71	71	2016	0.21	0	1663.64	0	295932.41	113.18	16600	56.92	0	39231.57	0.000642	1985 Hourly	2016	-4.76	400	2.238012	0	60.793798	25.186668					137,412	3,486	-	94,694	39,232	0.001909	417,067	29%	0.0726616
72	72	2016	2.99	0	2582.59	0	295931.59	179.47	16600	186.76	0	64278.44	0.002618	1985 Hourly	2016	-3.05	400	129.941812	0	1262.7256	168.28096					596,237	49,634	-	482,325	64,278	0.005927	476,177	29%	0.4698525
73	73	2016	0.5	0	3845.89	0	295931.62	269.76	16600	189.39	0	92195.48	0.006532	1985 Hourly	2016	-1.53	400	54.2156	0	4757.7331	602.22088					828,869	8,300	-	728,373	92,195	0.009822	3,072,187	30%	1.7620723
74	74	2016	2.39	0	5589.59	0	295930.34	455.13	16600	379.46	0	132563.3	0.008986	1985 Hourly	2016	0	400	356.510564	0	19059.538	1191.2138					2,293,263	39,674	-	2,121,026	132,563	0.00763	5,867,786	31%	4.0897982
75	75	2016	4.42	0	8565.28	0	295930.56	898.95	16600	687.64	0	190213.82	0.006532	1985 Hourly	2016	1.53	400	479.265904	0	38472.364	1242.4767					6,153,415	73,372	-	5,889,829	190,214	0.002261	14,848,208	31%	5.8719414
76	76	2016	19.8	0	11088.77	0	295929.53	1533.91	16600	1170.47	0	252326.56	0.002618	1985 Hourly	2016	3.05	400	860.48424	0	33979.212	660.59093					13,560,079	328,680	-	12,979,073	252,327	0.000791	29,483,540	31%	4.0157764
77	77	2016	20.26	0	15766.04	0	295930.25	3369.35	16600	1936.94	0	362649.93	0.000642	1985 Hourly	2016	4.76	400	215.914872	0	19605.315	232.82126					31,236,839	336,316	-	30,537,874	362,650	0.000231	68,467,741	31%	2.1631227
78	78	2016	1.06	0	6827.88	0	295849.72	376.33	16600	88.94	0	131246.4	0.000642	1986 Hourly	2016	-4.76	400	11.296632	0	389.8684	84.260189					756,114	17,596	-	607,272	131,246	0.001909	770,616	32%	0.2416039
79	79	2016	3.52	0	10690.54	0	295845.41	637.78	16600	371.19	0	188324.47	0.002618	1986 Hourly	2016	-3.05	400	152.974976	0	10388.804	493.03346					4,214,978	58,432	-	3,968,222	188,324	0.005927	3,481,086	32%	1.669708
80	80	2016	5.64	0	14560.86	0	295845.97	983.54	16600	774.71	0	250216.62	0.006532	1986 Hourly	2016	-1.53	400	611.551968	0	73683.859	1634.415					11,624,284	93,624	-	11,280,444	250,217	0.009822	11,579,592	33%	6.4244833
81	81	2016	7.04	0	18713.22	0	295850.59	1490.28	16600	943.98	0	327565.65	0.008986	1986 Hourly	2016	0	400	1050.139904	0	158736.84	2943.5049					18,109,335	116,864	-	17,664,905	327,566	0.00763	25,036,923	34%	13.391656
82	82	2016	8.58	0	25082.21	0	295843.47	2701.65	16600	1515.89	0	436133.72	0.006532	1986 Hourly	2016	1.53	400	930.339696	0	248358.86	2848.8255					38,600,433	142,428	-	38,021,871	436,134	0.002261	82,698,280	34%	17.647178
83	83	2016	36.7	0	32648.94	0	295843	4704.66	16600	2230.4	0	568882.33	0.002618	1986 Hourly	2016	3.05	400	1594.93796	0	190643.27	1489.3339					73,998,298	609,220	-	72,820,196	568,882	0.000791	147,025,110	34%	12.3168
84	84	2016	58.64	0	40586.99	0	295846.31	8195.91	16600	3288.27	0	724306.28	0.000642	1986 Hourly	2016	4.76	400	624.938208	0	85681.95	465.00463					135,158,712	973,424	-	133,460,982	724,306	0.000231	294,211,496	34%	5.2617742
85	85	2016	0.57	0	5060.93	0	296563	317.54	16600	56.7	0	107110.89	0.000642	1987 Hourly	2016	-4.76	400	6.074604	0	184.22494	68.765191					403,528	9,462	-	286,955	107,111	0.001909	464,419	34%	0.2038607
86	86	2016	2.16	0	7837.22	0	296560.25	506.07	16600	174.48	0	153928.95	0.002618	1987 Hourly	2016	-3.05	400	93.871008	0	3579.9531	402.98599					1,557,223	35,856	-	1,367,438	153,929	0.005927	2,027,666	35%	1.3248913
87	87	2016	2.76	0	11099.53	0	296563.81	763.5	16600	229.21	0	214830.48	0.006532	1987 Hourly	2016	-1.53	400	299.270112	0	16618.213	1403.2727					2,804,770	45,816	-	2,544,123	214,830	0.009822	8,139,167	36%	4.987182
88	88	2016	14.89	0	16398.71	0	296563.81	1287.23	16600	500.66	0	303244.54	0.008986	1987 Hourly	2016	0	400	2221.105564	0	73776.661	2724.9554					8,760,597	247,174	-	8,210,178	303,245	0.00763	21,335,520	37%	11.567049
89	89	2016	30.45	0	22185.4	0	296562.59	2453.38	16600	916.23	0	402861.78	0.006532	1987 Hourly	2016	1.53	400	3301.73004	0	132775.5	2631.4931					21,235,261	505,470	-	20,326,929	402,862	0.002261	51,312,939	37%	16.025478
90	90	2016	48.08	0	27933.62	0	296561.34	4209.88	16600	1390.74	0	511119.13	0.002618	1987 Hourly	2016	3.05	400	2089.499104	0	101705.12	1338.1099					40,157,650	798,128	-	38,848,403	511,119	0.000791	99,247,253	37%	11.021466
91	91	2016	181.65	0	37521.38	0	296562.34	8245.47	16600	2493.99	0	697276.62	0.000642	1987 Hourly	2016	4.76	400	1935.88038	0	60077.042	447.65159					97,290,613	3,015,390	-	93,577,947	697,277	0.000231	220,905,785	37%	5.2935917
92	92	2016	31.43	0	13895.37	0	296984.41	808.59	16600	245.51	0	208640.09	0.000642	1988 Hourly	2016	-4.76	400	334.955796	0	2190.1524	133.94694					4,141,830	521,738	-	3,411,452	208,640	0.001909	2,461,081	37%	0.5191148
93	93	2016	31.47	0	20292.55	0	296981.81	1230.45	16600	309.83	0	297599.63	0.002618	1988 Hourly	2016	-3.05	400	1367.648436	0	16459.996	779.11583					7,107,242	522,402	-	6,287,241	297,600	0.005927	9,014,901	38%	3.2213181
94	94	2016	49.92	0	29014.64	0	296980.72	1956.09	16600	403.1	0	403043.02	0.006532	1988 Hourly	2016	-1.53	400	5412.885504	0	76396.975	2632.677					12,927,516	828,672	-	11,695,801	403,043	0.009822	25,692,806	39%	12.77718
95	95	2016	87	0	39687.74	0	296983.78	3380.45	16600	701.35	0	543304.05	0.008986	1988 Hourly	2016	0	400	12977.5812	0	250125.28	4882.1302					29,822,500	1,444,200	-	27,834,996	543,304	0	90,401,888	40%	30.376724
96	96	2016	246.89	0	49209.78	0	296983.59	5997.08	16600	1354.38	0	690582.91	0.006532	1988 Hourly	2016	1.53	400	26770.57897	0	435349.58	4510.8876					71,437,699	4,098,374	-	66,648,742	690,583	0.002261	194,599,843	40%	39.172927
97	97	2016	860.22	0	59827.87	0	296982.91	10061.5	16600	2206.91	0	841663.63	0.002618	1988 Hourly	2016	3.05	400	37384.12894	0	345666.91	2203.4754					147,156,040	14,279,652	-	132,034,725	841,664	0.000791	365,317,639	40%	26.341007
98	98	2016	2690.22	0	76515.51	0	296984.59	16123.94	16600	3686.94	0	1065503.4	0.000642	1988 Hourly	2016	4.76	400	28670.21258	0	181113.4	684.05319					327,831,250	44,657,652	-	282,108,094	1,065,503	0.000231	674,065,521	40%	10.351569
99	99	2016	0.76	0	2577.05	0	295300.84	178.68	16600	51.2	0	61672.87	0.000642	1989 Hourly	2016	-4.76	400	8.099472	0	84.708664	39.593983					206,234	12,616	-	131,945	61,673	0.001909	257,257	40%	0.1147126
100	100	2016	0.47	0	4389.67	0	295304.16	299.4	16600	125.12	0	99066.19	0.002618	1989 Hourly	2016	-3.05	400	20.425636	0	1437.8986	259.35529					656,104	7,802	-	549,236	99,066	0.005927	1,160,135	41%	0.7838292
101	101	2016	6.28	0	6498.64	0	295302.44	456.11	16600	246.14	0	142457.42	0.006532	1989 Hourly	2016	-1.53	400	680.947936	0	10448.426	930.53187					1,846,281	104,248	-	1,599,575	142,457	0.009822	3,869,815	42%	2.9793105
102	102	2016	5.28	0	9584.36	0	295303.84	748.05	16600	365.46	0	205452.15	0.008986	1989 Hourly	2016	0	400	787.604928	0	31475.264	1846.193					3,795,800	87,648	-	3,502,700	205,452	0.00763	9,086,667	43%	6.7219773
103	103	2016	7.29	0	12988.06	0	295302.22	1363.54	16600	657.98	0	273497.13	0.006532	1989 Hourly	2016	1.53	400	790.463448	0	55821.712	1786.4833					8,940,395	121,014	-	8,545,884	273,497	0.002261	28,056,651	43%	8.9066433
104	104	2016	20.99	0	17754.4	0	295303.94	2517.12	16600	1076.17	0	375938.2	0.002618	1989 Hourly	2016	3.05	400	912.200212	0	50021.478	984.20621					19,831,125	348,434	-	19,106,753	375,938	0.000791	54,456,324	43%	6.5898202
105	105	2016	77.15	0	24750.96	0	295301.22	5419.04	16600	2110.68	0	527207.65	0.000642	1989 Hourly	2016	4.76	400	822.20298	0	33538.951	338.46731					54,049,254	1,280,690	-	52,241,356	527,208	0.000231	130,060,230	43%	3.4790237
106	106	2016	15.8	0	4876.28	0	295302.88	285.56	16600	147.48	0	76027.57	0.000642	1990 Hourly	2016	-4.76	400	168.38376	0	461.69672	48.8097					1,057,461	262,280	-	719,154	76,028	0.001909	973,543	43%	0.1833295
107	107	2016	10.9	0	7070.79	0	295301.53	421.05	16600	301.77	0	106940.19	0.002618	1990 Hourly	2016	-3.05	400	473.70092	0	5586.1635	279.96942					2,421,632	180,940	-	2,133,752	106,940	0.005927	3,435,241	44%	1.1023089
108	108	2016	17.36	0	10160.47	0	295307.09	691.12	16600	371.49	0	154738.87	0.006532	1990 Hourly	2016	-1.53	400	1882.365632	0	24655.119	1010.7543					4,217,428	288,176	-	3,774,513	154,739	0.009822	10,412,733	45%	4.5143958

109	109	2016	35.93	0	13309.72	0	295304.62	1157.62	16600	678.94	0	194998.39	0.008986	1990 Hourly	2016	0	400	5359.591868	0	81202.001	1752.2555	9,827,938	596,438	-	9,036,501	194,998	0.00763	30,906,989	45%	10.402373
110	110	2016	122.41	0	17817.23	0	295300.5	2274.55	16600	1286.93	0	263062.6	0.006532	1990 Hourly	2016	1.53	400	13273.06319	0	149775.68	1718.3249	25,224,596	2,032,006	-	22,929,528	263,063	0.002261	83,586,536	46%	14.857361
111	111	2016	449.3	0	21269.15	0	295300.84	3853.62	16600	2071.89	0	324485.52	0.002618	1990 Hourly	2016	3.05	400	19526.03884	0	115368.29	849.50309	51,850,205	7,458,380	-	44,067,339	324,486	0.000791	137,057,644	46%	10.088777
112	112	2016	1421.24	0	25969.5	0	295302.69	6765.74	16600	3568.66	0	414010.7	0.000642	1990 Hourly	2016	4.76	400	15146.43893	0	59498.195	265.79487	116,682,911	23,592,584	-	92,676,316	414,011	0.000231	242,085,219	46%	4.3436051
113	113	2016	0.84	0	8112.13	0	296218.81	464.07	16600	154.15	0	156740.2	0.000642	1991 Hourly	2016	-4.76	400	8.952048	0	802.81127	100.62721	1,421,169	13,944	-	1,250,485	156,740	0.001909	1,561,594	46%	0.2979329
114	114	2016	3.93	0	11807.39	0	296216.56	697.09	16600	194.31	0	215161.96	0.002618	1991 Hourly	2016	-3.05	400	170.793084	0	6006.4616	563.29401	2,574,694	65,238	-	2,294,294	215,162	0.005927	4,215,910	46%	1.8249816
115	115	2016	4.01	0	16006.29	0	296215.94	1072.36	16600	494.47	0	282913.91	0.006532	1991 Hourly	2016	-1.53	400	434.809112	0	51698.365	1847.9937	8,264,110	66,566	-	7,914,630	282,914	0.009822	17,332,032	47%	7.0046555
116	116	2016	19.57	0	23141.13	0	296215.34	1871.89	16600	826.89	0	393461.16	0.008986	1991 Hourly	2016	0	400	2919.209932	0	171948.63	3535.642	19,853,492	324,862	-	19,135,169	393,461	0.00763	46,886,729	48%	16.820804
117	117	2016	21.72	0	29851	0	296217.28	3269.72	16600	1204.11	0	506504.21	0.006532	1991 Hourly	2016	1.53	400	2355.125664	0	234785.47	3308.4855	36,810,944	360,552	-	35,943,888	506,504	0.002261	88,574,513	48%	21.357811
118	118	2016	135.83	0	38473.33	0	296218.19	5680.59	16600	2123.13	0	644457.98	0.002618	1991 Hourly	2016	3.05	400	5903.008804	0	213848.4	1687.191	84,583,117	2,254,778	-	81,683,881	644,458	0.000791	161,229,584	49%	14.871785
119	119	2016	384.73	0	47227.31	0	296214.59	9606.79	16600	3156.85	0	808949	0.000642	1991 Hourly	2016	4.76	400	4100.144556	0	95715.481	519.34526	156,285,001	6,386,518	-	149,089,534	808,949	0.000231	354,023,749	49%	6.1675592
120	120	2016	3.8	0	1810.37	0	295303.09	121.2	16600	80.15	0	39853.38	0.000642	1992 Hourly	2016	-4.76	400	40.49736	0	93.154942	25.58587	248,035	63,080	-	145,101	39,853	0.001909	135,410	49%	0.0778104
121	121	2016	3.34	0	2749.37	0	295306.19	185.77	16600	115.9	0	58534.45	0.002618	1992 Hourly	2016	-3.05	400	145.152392	0	834.23089	153.24319	432,630	55,444	-	318,652	58,534	0.005927	649,065	49%	0.4863459
122	122	2016	2.85	0	3931.95	0	295304.56	280.72	16600	226.61	0	83772.08	0.006532	1992 Hourly	2016	-1.53	400	309.02892	0	5820.1373	547.19923	1,022,101	47,310	-	891,019	83,772	0.009822	1,789,315	50%	1.833663
123	123	2016	3.95	0	5797.41	0	295303.47	456.08	16600	318.03	0	121391.03	0.008986	1992 Hourly	2016	0	400	589.21202	0	16567.94	1090.8198	2,030,711	65,570	-	1,843,750	121,391	0.00763	4,643,026	51%	4.0983349
124	124	2016	18.59	0	7898.05	0	295302.41	800.25	16600	673.66	0	164133.3	0.006532	1992 Hourly	2016	1.53	400	2015.736008	0	34754.162	1072.1187	5,793,328	308,594	-	5,320,600	164,133	0.002261	14,551,398	51%	5.227233
125	125	2016	100.51	0	10316.36	0	295305	1458	16600	1296.92	0	219194.44	0.002618	1992 Hourly	2016	3.05	400	4368.043988	0	35027.514	573.85104	15,267,154	1,668,466	-	13,379,494	219,194	0.000791	36,544,682	51%	3.817044
126	126	2016	322.44	0	13767.01	0	295302.5	3031.76	16600	1864.94	0	308645.39	0.000642	1992 Hourly	2016	4.76	400	3436.307568	0	16483.124	198.15034	31,335,797	5,352,504	-	25,674,648	308,645	0.000231	66,862,367	51%	1.9463899
127	127	2016	5.06	0	6076.2	0	296391.94	386.99	16600	73.91	0	115645.81	0.000642	1993 Hourly	2016	-4.76	400	53.925432	0	288.31703	74.24461	648,734	83,996	-	449,092	115,646	0.001909	770,987	52%	0.2484476
128	128	2016	3.1	0	10450.27	0	296389.09	657.99	16600	151.54	0	172633.94	0.002618	1993 Hourly	2016	-3.05	400	134.72228	0	4145.9536	451.95565	1,807,728	51,460	-	1,583,634	172,634	0.005927	3,336,008	52%	1.7226178
129	129	2016	16.12	0	14412.94	0	296391.62	999.83	16600	332.03	0	245664.55	0.006532	1993 Hourly	2016	-1.53	400	1747.910944	0	31259.072	1604.6808	5,298,785	267,592	-	4,785,528	245,665	0.009822	12,204,171	53%	6.5308896
130	130	2016	37.99	0	19651.54	0	296389.81	1616.38	16600	628.18	0	333516.03	0.008986	1993 Hourly	2016	0	400	5666.877124	0	110929.51	2996.975	13,308,854	630,634	-	12,344,704	333,516	0.00763	30,620,125	54%	14.524791
131	131	2016	46.98	0	25116.69	0	296387.91	2878.4	16600	1059.34	0	429596.84	0.006532	1993 Hourly	2016	1.53	400	5094.097776	0	173797.67	2806.1266	27,816,579	779,868	-	26,607,114	429,597	0	67,945,008	54%	18.801709
132	132	2016	167.86	0	33620.7	0	296390.62	5281.85	16600	1675.81	0	585821.82	0.002618	1993 Hourly	2016	3.05	400	7294.994168	0	147503.11	1533.6815	59,714,203	2,786,476	-	56,341,905	585,822	0.000791	136,637,490	54%	13.827883
133	133	2016	440.54	0	41640.08	0	296389.25	9676.64	16600	2526.69	0	757553.04	0.000642	1993 Hourly	2016	4.76	400	4694.922888	0	67545.83	486.34905	113,282,091	7,312,964	-	105,211,574	757,553	0.000231	280,503,958	54%	6.2124029
134	134	2016	2.55	0	4137.27	0	295753.44	264.36	16600	65.6	0	82219.18	0.000642	1994 Hourly	2016	-4.76	400	27.17586	0	174.24195	52.784714	395,954	42,330	-	271,405	82,219	0.001909	404,006	54%	0.1697191
135	135	2016	4.25	0	6149.96	0	295759.53	397.49	16600	123.43	0	122079.22	0.002618	1994 Hourly	2016	-3.05	400	184.6999	0	1987.2965	319.6034	951,719	70,550	-	759,090	122,079	0.005927	1,693,116	55%	1.0406288
136	136	2016	9.8	0	9193.87	0	295750.97	633.28	16600	224.03	0	175529.48	0.006532	1994 Hourly	2016	-1.53	400	1062.62576	0	13453.978	1146.5586	2,397,912	162,680	-	2,059,703	175,529	0.009822	5,200,843	56%	4.136585
137	137	2016	22.36	0	13632.56	0	295755	1077.76	16600	450.62	0	251363.51	0.008986	1994 Hourly	2016	0	400	3335.387536	0	55201.934	2258.7525	6,765,644	371,176	-	6,143,104	251,364	0.00763	15,316,975	57%	9.6847514
138	138	2016	38.09	0	18276.13	0	295756.94	1934.6	16600	809.27	0	337556.12	0.006532	1994 Hourly	2016	1.53	400	4130.144408	0	96610.395	2204.9166	15,760,174	632,294	-	14,790,324	337,556	0.002261	44,660,112	57%	12.636807
139	139	2016	175.65	0	23707.88	0	295756.06	3502.32	16600	1194.74	0	454894.24	0.002618	1994 Hourly	2016	3.05	400	7633.53822	0	74154.202	1190.9131	31,695,437	2,915,790	-	28,324,753	454,894	0.000791	77,523,411	57%	9.1690738
140	140	2016	809.42	0	31061.56	0	295755.47	7083.27	16600	2167.88	0	617877.36	0.000642	1994 Hourly	2016	4.76	400	8626.150824	0	43230.826	396.67727	81,391,984	13,436,372	-	67,337,735	617,877	0.000231	198,143,793	57%	4.5474593
141	141	2016	19.6	0	10813.92	0	295485.34	621.07	16600	188.87	0	224617.45	0.000642	1995 Hourly	2016	-4.76	400	208.88112	0	1311.2369	144.2044	2,592,403	325,360	-	2,042,425	224,617	0.001909	1,764,704	57%	0.3987269
142	142	2016	16.54	0	15487.67	0	295483.91	927.08	16600	208.99	0	312406.64	0.002618	1995 Hourly	2016	-3.05	400	718.808552	0	8473.859	817.88058	3,823,739	274,564	-	3,236,768	312,407	0.005927	6,878,413	58%	2.4270954
143	143	2016	37.33	0	20845.5	0	295481.44	1436.38	16600	572.8	0	405514.8	0.006532	1995 Hourly	2016	-1.53	400	4047.736696	0	77994.055	2648.8227	12,965,495	619,678	-	11,940,302	405,515	0.009822	21,291,134	59%	9.3824342
144	144	2016	99.82	0	28262.81	0	295482.75	2444.67	16600	786.5	0	533419.21	0.008986	1995 Hourly	2016	0	400	14889.90983	0	199747.1	4793.305	24,419,131	1,657,012	-	22,228,700	533,419	0.00763	57,763,237	60%	21.967805
145	145	2016	195.61	0	36099.78	0	295482.44	4387.81	16600	1361.08	0	688105.25	0.006532	1995 Hourly	2016	1.53	400	21210.22703	0	320947.79	4494.7035	53,069,920	3,247,126	-	49,134,689	688,105	0.002261	153,477,831	60%	28.661175
146	146	2016	597.02	0	42848.17	0	295484.03	7134.7	16600	1909.65	0	830727.14	0.002618	1995 Hourly	2016	3.05	400	25945.77278	0	214217.87	2174.8437	92,566,267	9,910,532	-	81,825,008	830,727	0.000791	236,085,508	60%	18.678645
147	147	2016	2164.82	0	53439.93	0	295481.59	12173.25	16600	3166.85	0	1053424.1	0.000642	1995 Hourly	2016	4.76	400	23070.9197	0	108649.67	676.29825	206,225,678	35,936,012	-	169,236,242	1,053,424	0.000231	444,286,784	60%	7.8152265
148	148	2016	0.11	0	3100.29	0	295393.72	204.28	16600	57.51	0	71698.48	0.000642	1996 Hourly	2016	-4.76	400	1.172292	0	114.46711	46.030424	251,822	1,826	-	178,298	71,698	0	313,621	60%	0.1311478
149	149	2016	5.03	0	5508.73	0	295391.88	352.99	16600	160.39	0	115314.42	0.002618	1996 Hourly	2016	-3.05	400	218.597764	0	2313.1213	301.89315	1,082,358	83,498	-	883,545	115,314	0.005927	1,310,004	61%	0.9241278
150	150	2016	0.68	0	6647.85	0	295390.94	471.13	16600	189.15	0	144628.51	0.006532	1996 Hourly	2016	-1.53	400	73.733216	0	8213.6035	944.71343	1,413,357	11,288	-	1,257,441	144,629	0.009822	6,901,873	62%	3.0774212
151	151	2016	6.53	0	10234.18	0	295389.16	804.49	16600	396.67	0	205408.01	0.008986	1996 Hourly	2016	0	400	974.064428	0	36479.495	1845.7964	4,373,398	108,398	-	4,059,592	205,408	0.00763	12,222,764	63%	7.2291471
152	152	2016	23.09	0	14351.81	0	295389.97	1530.87	16600	987.2	0	280744.73	0.006532	1996 Hourly	2016	1.53	400	2503.676408	0	92546.074	1833.8246	14,832,146	383,294	-	14,168,107	280,745	0.002261	26,179,770	63%	9.9996428
153	153	2016	15.75	0	17831.01	0	295388.22	2547.59	16600	1135.01	0	364473.28	0.002618	1996 Hourly	2016	3.05	400	684.4761	0	52984.065	954.19105	20,864,298	261,450	-	20,238,375	364,473	0.000791	49,083,293	63%	6.6695906
154	154	2016	49.07	0	25016.42	0	295388.06	5364.56	16600	2043.9	0	519109.41	0.000642	1996 Hourly	2016	4.76	400	522.948804	0	32826.141	333.26824	52,464,732	814,562	-	51,131,061	519,109	0.000231	102,217,768	63%	3.4440475
155	155	2016	2.01	0	5905.87	0	296243.53	338.68	16600	91.2	0	123281.21	0.000642	1997 Hourly	2016	-4.76	400	21.420972	0	345.79105	79.146537	695,263	33,366	-	538,615	123,281	0.001909	485,111	63%	0.2174326
156	156	2016	3.45	0	8127.97	0	296242.19	502.32	16600	211.24	0	160196.42	0.002618	1997 Hourly	2016	-3.05	400	149.93286	0	4494.9813	419.39423	1,934,419	57,270	-	1,716,952	160,196	0.005927	2,310,764	64%	1.3150738
157	157	2016	4.49	0	12176.65	0	296243.31	796.15	16600	374.52	0	233005.46	0.006532	1997 Hourly	2016	-1.53	400	486.856088	0	29788.526	1521.9917	4,867,938	74,534	-	4,560,399	233,005	0.009822	10,780,512	65%	5.2004518
158	158	2016	10.63	0	15887.99	0	296245.03	1242.98	16600	608	0	295055.52	0.008986	1997 Hourly	2016	0	400	1585.651588	0	86803.843	2651.3689	10,131,411	176,458	-	9,659,898	295,056	0.00763	27,236,361	65%	11.169418
159	159	2016	18.91	0	21110.79	0	296240.03	2298.89	16600	1044.62	0	394560.86	0.006532	1997 Hourly	2016	1.53	400	2050.433992	0	144048.59	2577.2715	22,761,220	313,906	-	22,052,753	394,561	0	54,098,563	66%	15.016349
160	160	2016	108.65	0	28462.99	0	296245.62	4281.35	16600	1793.54	0	526978.23	0.002618	1997 Hourly	2016	3.05	400	4721.79862	0	133647.62	1379.629	53,380,079	1,803,590	-	51,049,511	526,978	0.000791	112,113,358	66%	11.208574
161	161	2016	261.61	0	35351.17	0	296242.72	7638.9	16600	2745.22	0	672445.43	0.000642	1997 Hourly	2016	4.76	400	2788.030092	0	62304.006	431.70997	102,061,910	4,342,726	-	97,046,739	672,445	0.000231	223,003,362	66%	4.9041738
162	162	2016	1.62	0	3618.46	0	296283.31	227.43	16600	80.37	0	80487.2	0.000642	1998 Hourly	2016	-4.76	400	17.264664	0	186.70363	51.672782	398,195	26,892	-	290,816	80,487	0.001909	285,076	66%	0.1460101
163	163	2016	0.48	0	5144.17	0	296279.28	345.07	16600	128.08	0	123326.12	0.002618	1998 Hourly	2016	-3.05	400	20.860224	0	1724.9093	322.86778	790,159	7,968	-	658,865	123,326	0.005927	982,281	66%	0.9033933
164	164	2016	4.5	0	7230.35	0	296280.16	510.59	16600	247.63	0	165157	0.006532	1998 Hourly	2016	-1.53	400	487.9404	0	11695.23	1078.8055	2,030,309	74,700	-	1,790,452	165,157	0.009822	5,660,028	67%	3.3351739
165	165	2016	6.83	0	10517.43	0	296280.56	851.65	16600	418.39	0	227176.1	0.008986	1998 Hourly	2016	0	400	1018.814708	0	39541.882	2041.4044	4,740,942	113,378	-	4,400,388	227,176	0.001909	95,368	68%	7.6529269
166	166	2016	5.9	0	14735.5	0	296281.56	1565.53	16600	682.15	0	322399.44	0.006532	1998 Hourly	2016	1.53	400	639.74408	0	65658.497	2105.9131	10,472,161	97,940	-	10,051,821	322,399	0.001909	156,341	68%	10.226042
167	167	2016	15.34	0	19785.42	0	296281.72	2963.94	16600	1229.81	0	421845	0.002618	1998 Hourly	2016	3.05	400	666.657992	0	63701.981	1104.3902	25,008,796	254,644	-	24,332,307	421,845	0.001909	248,619	68%	7.7595949
168	168	2016	40.57	0	26468.34	0	296281.88	5959.52	16600	2163.3	0	577562.7	0.000642	1998 Hourly	2016	4.76	400	432.362604	0	36760.252	370.79525	58,509,985	673,462	-	57,258,960	577,563	0.001909	279,304	68%	3.8260118
169	169	2016	40.76	0	15464.61	0	295301.84	841.9	16600	184.16	0	209543.84	0.000642	1999 Hourly	2016	-4.76	400	434.387472	0	1828.392	134.52715	3,734,122	676,616	-	2,847,963	209,544	0.001909	328,164	68%	0.5404998
170	170	2016	73.33	0	21073.64	0	295300.88	1292.24	16600	349.55	0	284720.73	0.002618	1999 Hourly	2016	-3.05	400	3186.833804	0	19284.949	745.39887	8,868,290	1,217,278	-	7,366,291	284,721	0.005927	364,307	69%	3.3830843
171	171	2016	220.02	0	26650.64	0	295300.56	2084.27	16600	654.09	0	363598.19	0.006532	1999 Hourly	2016	-1.53	400	23857.03262	0	113865.28	2375.0234	21,447,847	3,652,332	-	17,431,917	363,598	0.001909	368,177	69%	13.614452
172	172	2016	720.12	0	34278.37	0	295301	3690.63	16600	1027.4	0	483601.69	0.008986	1999 Hourly	2016	0	400	107418.5721	0	316465.33	4345.6448	47,655,191	11,953,992	-	35,217,597	483,602	0.005927	683,052	70%	33.164001
173	173	2016	1901.91	0	42284.1	0	295302.53	6446.09	16600	1690.14	0	615675.42	0.006532	1999 Hourly	2016	1.53	400	206226.3836	0	466816.23	4021.5918	103,653,430	31,571,706	-	71,466,049	615,675	0.001909	794,740	70%	42.10586
174	174	2016	4989.04	0	46432.73	0	295301.44	9721.05	16600	2323.51	0	731164.94	0.002618	1999 Hourly	2016	3.05	400	216817.6916	0	282447.94	1914.1898	191,436,141	82,818,064	-	107,886,912	731,165	0.005927	805,325	71%	25.449709
175	175	2016	12202.69	0	54960.36	0	295302.94	15070.39	16600	3368.91	0	957794.79	0.000642	1999 Hourly	2016	4.76	400	130046.5079	0	118870.48	614.90426	388,678,955	202,564,654	-	185,156,506	957,795	0.005927	1,135,043	71%	9.6751904
176	176	2016	0	0	2998.81	0	295650.09	190.48	16600	1038.73	0	64976.43	0.000642	2000 Hourly	2016	-4.76	400	0	0	1999.8004	41.714868	3,179,930	-	-	3,114,954	64,976	0	1,135,419	71%	0.1222882
177	177	2016	1.06	0	4096.43	0	295649.75	265.52	16600	118.65	0	94040.51	0.002618	2000 Hourly	2016	-3.05	400	46.066328	0	1272.4564	246.19806	597,678	17,596	-	486,041	94,041	0.005927	1,270,467	72%	0.6951314
178	178	2016	3.81	0	5879.64	0	295652.41	414.68	16600	225.19	0	137103.01	0.006532	2000 Hourly	2016	-1.53	400	413.122872	0	8648.604	895.55686	1,524,385	63,246	-	1,324,036	137,103	0.005927	1,280,111	73%	2.7086898
179	179	2016	4.76	0	8107.88	0	295648.44	635.62	16600	299.42	0	179251.39	0.008986	2000 Hourly	2016	0	400	710.037776	0	21814.966	1610.753	2,685,929	79,016	-	2,427,661	179,251	0.001909	1,348,503	73%	5.7116813
180	180	2016	11.16	0	10743.28	0	295652.44	1095.72	16600	603.41	0	250000.26	0.006532	2000 Hourly	2016	1.53	400	1210.092192	0	42344.36	1633.0017	6,917,859	185,256	-	6,482,603	250,000	0.009822	1,664,276	74%	7.157243
181	181	2016	44.47	0	15030.07	0	295654.41	2029.78	16600	1079.35	0	345508.74	0.002618	2000 Hourly	2016	3.05	400	1932.612836	0	42471.044	904.54188	17,306,417	738,202	-	16,222,706	345,509	0.009822	2,557,586	75%	5.313964
182	182	2016	127.87	0	21392.63	0	295655.28	4472.47	16600	1900.98	0	484075.92	0.000642	2000 Hourly	2016	4.76	400	1362.736164	0	26108.189	310.77674	43,273,680	2,122,642	-	40,666,962	484,076	0.005927	3,312,446	75%	2.8713257
183	183	2016	0.01	0	4036.69	0	296597.41	259.14	16600	58.66	0	71765.99	0.000642	2001 Hourly	2016	-4.76	400	0.106572	0	152.02062	46.073766	308,724	166	-	236,792	71,766	0.009822	3,343,458	76%	0.1663679
184	184	2016	2.87	0	6591.31	0	296600.09	421.62	16600	129.76	0	107990.84	0.002618	2001 Hourly	2016	-3.05	400	124.726756	0	2239.145	282.72002	1,010,921	47,642	-	855,288	107,991	0.00763	3,402,914	77%	1.1038012
185	185	2016	2.26	0	9227.81	0	296598.09	607.37	16600	243	0	152342.68	0.006532	2001 Hourly	2016	-1.53	400	245.054512	0	14647.081	995.10239	2,432,217	37,516	-	2,242,358	152,343	0.001909	3,465,862	77%	3.9673408
186	186	2016	4.39	0	12608.76	0	296599.59	988.11	16600	391.19	0	204764.83	0.008986	2001 Hourly	2016	0	400	654.845764	0	44322.734	1840.0168	5,210,060	72,874	-	4,932,421	204,765	0.009822	3,681,995	78%	8.8791565
187	187	2016	9.94	0	14973.1	0	296598.84	1531.8	16600	624.92	0	272705.02	0.006532	2001 Hourly	2016	1.53	400	1077.806128	0	61119.856	1781.3092	9,794,699	165,004	-	9,356,990	272,705	0.009822	3,957,046	79%	10.005718
188	188	2016	14.79	0	18534.93	0	296596.84	2703.02	16600	1032.52	0	354323.63	0.002618	2001 Hourly	2016	3.05	400	642.755652	0	50102.462	927.61926	19,737,524	245,514	-	19,137,686	354,324	0.009822	4,136,404	80%	7.0765064
189	189	2016	36.73	0	25740.04	0	296600.44	5675.2	16600	1863.77	0	509117.59	0.000642	2001 Hourly	2016	4.76	400	391.438956	0	30798.996	326.85349	49,092,350	609,718	-	47,973,514	509,118	0.001909	4,272,577	80%	3.6434784
190	190	2016	1.77	0	9044.72	0	295302.41	544.11	16600	79.54	0	164192.25	0.000642	2002 Hourly	2016	-4.76	400	18.863244	0	461.86573	105.41142	912,991	29,382	-	719,417	164,192	0.005927	5,766,092	81%	0.3493186
191	191	2016	6.5	0	13312.43	0	295300.69	824.04	16600	163.4	0	233255.03	0.002618	2002 Hourly	2016	-3.05	400	282.4822	0	5694.8073	610.66167	2,516,406	107,900	-	2,175,251	233,255	0.005927	6,032,201	82%	2.1573367
192	192	2016	16.28	0	17279.98	0	295303.84	1203.15	16600	279.61	0	300230.41	0.006532	2002 Hourly	2016	-1.53	400	1765.259936	0	31560.372	1961.105	5,402,134	270,248	-	4,831,655	300,230	0.00763	8,579,112	82%	7.8589758
193	193	2016	34.48	0	24872.24	0	295301.41	2048.52	16600	568.95	0	416389.13	0.008986	2002 Hourly	2016	0	400	5143.298848	0	127161.43	3741.6727	15,139,818	572,368	-	14,151,061	416,389	0.00763	8,951,232	83%	18.408001
194	194	2016	61.21	0	33760.48	0	295302.59	3865.79	16600	1059.41	0	559095.81	0.006532	2002 Hourly	2016	1.53	400	6637.073752	0	233624.75	3652.0138	37,341,372	1,016,086	-	35,766,190	559,096	0.00763	9,163,428	84%	25.25134
195	195	2016	151.26	0	42119.75	0	295298.09	6640.22	16600	1543.48	0	715014.21	0.002618	2002 Hourly	2016	3.05	400	6573.578088	0	170198.78	1871.9072	68,236,922	2,510,916	-	65,010,992	715,014	0.002261	10,152,851	84%	17.384096
196	196	2016	397.98	0	53609.15	0	295303.22	11906.42	16600	2692.78	0	931274.6	0.000642	2002 Hourly	2016	4.76	400	4241.352456	0	92677.609	597.87829	151,895,390	6,606,468	-	144,357,647	931,275	0.00763	12,147,226	85%	7.6439216
197	197	2016	0.27	0	2843.19	0	295949.62	187.88	16600	52.1	0	70814.76	0.000642	2003 Hourly	2016	-4.76	400	2.877444	0	95.099588	45.463076	223,427	4,482	-	148,130	70,815	0.00763	12,507,089	86%	0.120619
198	198	2016	3.49	0	4601.95	0	295949.38	299.33	16600	112.63	0	107026.46	0.002618	2003 Hourly	2016	-3.05	400	151.671212	0	1356.9556	280.19527	683,278	57,934	-	518,318	107,026	0.005927	12,649,140	86%	0.7836459
199	199	2016	1.72	0	6652.98	0	295949	464.83	16600	251.72	0	148536.34	0.006532	2003 Hourly	2016	-1.53	400	186.501664	0	10939.063	970.23937	1,851,776	28,552	-	1,674,688	148,536	0.009822	12,691,285	87%	3.0362696
200	200	2016	6.99	0	9019.21	0	295948.44	703.97	16600	334.35	0	199927.46	0.008986	2003 Hourly	2016	0	400	1042.681524	0	27097.938	1796.5482	3,331,534	116,034	-	3,015,573	199,927	0.00763	14,012,142	88%	6.3258744
201	201	2016	20.35	0	12894.6	0	295952.03	1344.31	16600	651.65	0	289033.7	0.006532	2003 Hourly	2016	1.53	400	2206.57492	0	54886.868	1887.9681	9,029,610	337,810	-	8,402,766	289,034	0.009822	15,095,980	89%	8.7810329
202	202	2016	65.91	0	17172.12	0	295950.41	2455.72	16600	1109.49	0	380915.43	0.002618	2003 Hourly	2016	3.05	400	2864.369508	0	49878.909	997.2366	20,527,317	1,094,106	-	19,052,295	380,915	0.005927	17,783,805	90%	6.429075
203	203	2016	373.08	0	23457.1	0	295951	5170.2	16600	2094.24	0	524519.05	0.000642	2003 Hourly	2016	4.76	400	3975.988176	0	31538.12	336.74123	55,842,444	6,193,128	-	49,124,797	524,519	0.009822	18,388,790	91%	3.3192684
204	204	2016	1.11	0	1391.07	0	295298.84	98.87	16600	46.71	0	37035.69	0.000642	2004 Hourly	2016	-4.76	400	11.829492	0	41.715157	23.776913	120,439	18,426	-	64,977	37,036	0.002261	20,493,546	91%	0.0634745
205	205	2016	0.33	0	1929.66	0	295301.16	142.3	16600	96.2	0	52914.66	0.002618	2004 Hourly	2016	-3.05	400	14.341404	0	485.98796	138.53058	244,026	5,478	-	185,633	52,915	0.002261	21,525,646	91%	0.3725414
206	206	2016	0.42	0	3268.55	0	295301.56	229.77	16600	189.36	0	82918.4	0.006532	2004 Hourly	2016	-1.53	400	45.541104	0	4042.8679	541.62299	708,823	6,972	-	618,933	82,918	0.000791	22,041,264	91%	1.5008576
207	207	2016	0.54	0	4772.13	0	295300.81	369.99	16600	273.84	0	117077.9	0.008986	2004 Hourly	2016	0	400	80.550504	0	11742.906	1052.062	1,432,842	8,964	-	1,306,800	117,078	0.002261	27,194,074	91%	3.3247301
208	208	2016	13.06	0	6492.18	0	295302.09	659.08	16600	552.23	0	158940.3	0.006532	2004 Hourly	2016	1.53	400	1416.111472	0	23418.373	1038.198	3,960,913	216,796	-	3,585,177	158,940	0.002261	27,293,878	91%	4.3051106
209	209	2016	51.96	0	8689.22	0	295303.09	1211.78	16600	973.85	0	217639.73	0.002618	2004 Hourly	2016	3.05	400	2258.119248	0	22153.508	569.78081	9,542,173	862,536	-	8,461,997	217,640	0.002261	31,712,762	92%	3.17244
210	210	2016	179.37	0	12012.45	0	295298.41	2581.4	16600	1667.85	0	310695.85	0.000642	2004 Hourly	2016	4.76	400	1911.581964	0	12862.447	199.46674	23,323,203	2,977,542	-	20,034,965	310,696	0.002261	31,830,155	92%	1.6572588
211	211	2016	11.3	0	8662.43	0	296224.16	528.08	16600	156.12	0	141163.57	0.000642	2005 Hourly	2016	-4.76	400	120.42636	0	868.22704	90.627012	1,681,122	187,580	-	1,352,379	141,164	0.00763	35,377,610	93%	0.3390274
212	212	2016	10.16	0	12042.08	0	296225.94	761.01	16600	236.69	0	196117.72	0.002618	2005 Hourly	2016	-3.05	400	441.541408	0	7461.9281	513.43619	3,215,014	168,656	-	2,850,240	196,118	0.009822	38,617,646	94%	1.9923242
213	213	2016	28.07	0	17316.04	0	296222.81	1209.41	16600	342.55	0	273192.89	0.006532	2005 Hourly	2016	-1.53	400	3043.663784	0	38745.273	1784.496	6,670,764	465,962	-	5,931,610	273,193	0.000791	38,845,954	94%	7.8998661
214	214	2016	71.83	0	23556.7	0	296223.88	1988.26	16600	649.77	0	367178.24	0.008986	2005 Hourly	2016	0	400	10714.70871	0	137543.64	3299.4637	16,865,993	1,192,378	-	15,306,437	367,178	0.00763	41,097,815	95%	17.866504
215	215	2016	155.4	0	30459.26	0	296225.97	3617.96	16600	1101.04	0	483686.48	0.006532	2005 Hourly	2016	1.53	400	16850.20848	0	219062.79	3159.4401	36,600,190	2,579,640	-	33,536,864	483,686	0.00763	43,798,503	95%	23.632515
216	216	2016	422.98	0	37843.33	0	296224.62	6129.37	16600	1773.55	0	621948.77	0.002618	2005 Hourly	2016	3.05	400	18382.20322	0	175712.41	1628.2619	74,760,455	7,021,468	-	67,117,038	621,949	0.009822	44,153,177	96%	16.046691

Attachment 2 to Response to KIUC-1 Question No. 51

Bellar

217	217	2016	1126.44	0	49966.73	0	296229.88	11404.27	16600	2842.65	0	833184.05	0.000642	2005 Hourly	2016	4.76	400	12004.69637	0	91188.348	534.90416	161,570,013	18,698,904	-	142,037,925	833,184	0.000791	46,481,686	96%	7.3215413
218	218	2016	4.17	0	7126.55	0	295578.34	424.75	16600	136.97	0	130892.64	0.000642	2006 Hourly	2016	-4.76	400	44.440524	0	626.67132	84.033075	1,176,238	69,222	-	976,124	130,893	0.000791	47,298,343	96%	0.2726895
219	219	2016	11.38	0	10480.84	0	295581.88	661.72	16600	224.29	0	185943.34	0.002618	2006 Hourly	2016	-3.05	400	494.561144	0	6154.2572	486.79966	2,725,599	188,908	-	2,350,748	185,943	0.000231	47,460,092	96%	1.732383
220	220	2016	15.32	0	15074.64	0	295578.91	994.53	16600	288.71	0	259189.39	0.006532	2006 Hourly	2016	-1.53	400	1661.165984	0	28428.566	1693.0251	4,865,701	254,312	-	4,352,199	259,189	0.000791	53,074,792	97%	6.49627
221	221	2016	24.03	0	20389.89	0	295584.69	1655.98	16600	524.97	0	337552.57	0.008986	2006 Hourly	2016	0	400	3584.497428	0	96186.868	3033.2474	11,440,531	398,898	-	10,704,081	337,553	0.000791	53,428,372	97%	14.880636
222	222	2016	60.18	0	26740.04	0	295581.22	3086.94	16600	1099.36	0	444154.16	0.006532	2006 Hourly	2016	1.53	400	6525.389616	0	192020.75	2901.215	30,840,073	998,988	-	29,396,930	444,154	0.000791	61,604,794	97%	20.163892
223	223	2016	176.47	0	33936.79	0	295579.44	5476.27	16600	1867.5	0	566299.44	0.002618	2006 Hourly	2016	3.05	400	7669.174436	0	165920.87	1482.5719	66,872,657	2,929,402	-	63,376,955	566,299	0.002261	73,570,309	97%	14.336875
224	224	2016	554.22	0	43660.55	0	295582.5	9954.36	16600	3193.77	0	738100.43	0.000642	2006 Hourly	2016	4.76	400	5906.433384	0	89521.607	473.86048	149,379,907	9,200,052	-	139,441,755	738,100	0.000231	79,537,938	97%	6.3906991
225	225	2016	24.39	0	18436.64	0	296275.09	1015.86	16600	171.74	0	270773.89	0.000642	2007 Hourly	2016	-4.76	400	259.929108	0	2032.7701	173.83684	3,841,956	404,874	-	3,166,309	270,774	0.000231	101,808,130	97%	0.6521821
226	226	2016	50.67	0	26019.63	0	296277.94	1563	16600	328.15	0	378895.11	0.002618	2007 Hourly	2016	-3.05	400	2202.057396	0	22353.378	991.9474	9,758,359	841,122	-	8,538,342	378,895	0.002261	105,386,216	97%	4.091934
227	227	2016	101.99	0	34054.12	0	296272.75	2324.96	16600	498.94	0	485545.1	0.006532	2007 Hourly	2016	-1.53	400	11058.89809	0	110984.97	3171.5806	19,169,542	1,693,034	-	16,990,963	485,545	0.002261	113,136,949	97%	15.186639
228	228	2016	322.71	0	43214.66	0	296274.5	3917.11	16600	845.38	0	620500.13	0.008986	2007 Hourly	2016	0	400	48137.8762	0	328283.82	5575.8142	42,510,295	5,356,986	-	36,532,809	620,500	0.000231	121,398,882	97%	35.19915
229	229	2016	949.36	0	54368.56	0	296277.06	7247.82	16600	1530.28	0	783067.45	0.006532	2007 Hourly	2016	1.53	400	102940.244	0	543456.65	5114.9966	99,741,563	15,759,376	-	83,199,120	783,067	0.00763	121,749,120	98%	47.34276
230	230	2016	2548.97	0	64684.69	0	296275.19	11819.18	16600	2207.51	0	957315.22	0.002618	2007 Hourly	2016	3.05	400	110775.1774	0	373829.72	2506.2512	186,062,317	42,312,902	-	142,792,100	957,315	0.000231	125,013,290	98%	30.942613
231	231	2016	8488.8	0	76294.97	0	296277.22	16994.88	16600	3486	0	1191695.3	0.000642	2007 Hourly	2016	4.76	400	90466.83936	0	170749.06	765.0684	408,070,041	140,914,080	-	265,964,265	1,191,695	0.000231	127,630,260	98%	10.910713
232	232	2016	1.3	0	4178.81	0	295693.59	264.32	16600	72.04	0	87898.82	0.000642	2008 Hourly	2016	-4.76	400	13.85436	0	193.26863	56.431042	410,520	21,580	-	301,041	87,899	0.000231	137,501,647	98%	0.1696934
233	233	2016	1.27	0	6210.74	0	295695.97	407.83	16600	120.9	0	131191.2	0.002618	2008 Hourly	2016	-3.05	400	55.192676	0	1965.7998	343.45856	903,152	21,082	-	750,878	131,191	0.00763	150,321,029	99%	1.0676989
234	234	2016	5	0	8064.05	0	295693.22	584.16	16600	309.58	0	167914.57	0.006532	2008 Hourly	2016	-1.53	400	542.156	0	16306.933	1096.818	2,747,383	83,000	-	2,496,469	167,915	0.000791	175,887,849	99%	3.8157331
235	235	2016	4.61	0	12262.3	0	295695.03	988.47	16600	584.22	0	243895.84	0.008986	2008 Hourly	2016	0	400	687.662636	0	64374.634	2191.648	7,484,303	76,526	-	7,163,881	243,896	0.000791	183,611,085	99%	8.8823914
236	236	2016	10.88	0	15963.56	0	295697.31	1667.82	16600	741.27	0	330772.45	0.006532	2008 Hourly	2016	1.53	400	1179.731456	0	77295.169	2160.6056	12,344,689	180,608	-	11,833,308	330,772	0.000791	187,608,219	99%	10.8942
237	237	2016	34.6	0	22967	0	295695.03	3330.98	16600	1344	0	452310.27	0.002618	2008 Hourly	2016	3.05	400	1503.67448	0	80811.502	1184.1483	31,894,318	574,360	-	30,867,648	452,310	0.002261	282,695,811	99%	8.7205056
238	238	2016	51.33	0	31401.98	0	295694.94	6774.8	16600	2267.56	0	623169.66	0.000642	2008 Hourly	2016	4.76	400	547.034076	0	45714.171	400.07492	72,681,121	852,078	-	71,205,874	623,170	0.002261	286,549,199	100%	4.3494216
239	239	2016	0	0	1968.42	0	296140.22	132.68	16600	48.26	0	43389.99	0.000642	2009 Hourly	2016	-4.76	400	0	0	60.987399	27.856374	138,386	-	-	94,996	43,390	0.000231	311,907,198	100%	0.0851806
240	240	2016	0.86	0	3299.82	0	296141.34	222.41	16600	111.33	0	71357.14	0.002618	2009 Hourly	2016	-3.05	400	37.374568	0	961.77194	186.81299	453,002	14,276	-	367,369	71,357	0.000231	360,625,660	100%	0.5822694
241	241	2016	0	0	4561.27	0	296140	325.36	16600	205.49	0	100198.47	0.006532	2009 Hourly	2016	-1.53	400	0	0	6122.4134	654.49641	1,037,494	-	-	937,295	100,198	0.000231	385,344,274	100%	2.1252515
242	242	2016	14.31	0	7137.56	0	296141.72	574.15	16600	426.35	0	142917.11	0.008986	2009 Hourly	2016	0	400	2134.588356	0	27345.285	1284.2532	3,423,562	237,546	-	3,043,099	142,917	0.000791	412,850,988	100%	5.1593119
243	243	2016	59.56	0	9002.69	0	296140.97	957.68	16600	651.34	0	194797.58	0.006532	2009 Hourly	2016	1.53	400	6458.162272	0	38302.421	1272.4178	7,047,306	988,696	-	5,863,812	194,798	0.000791	455,260,219	100%	6.2555658
244	244	2016	133.59	0	12484.62	0	296143.66	1892.35	16600	1226.51	0	270712.59	0.002618	2009 Hourly	2016	3.05	400	5805.661092	0	40088.155	708.72556	17,800,818	2,217,594	-	15,312,511	270,713	0.000231	624,225,344	100%	4.9541723
245	245	2016	585.06	0	16510.17	0	296142.97	3781.04	16600	1985.21	0	371528.69	0.000642	2009 Hourly	2016	4.76	400	6235.101432	0	21042.291	238.52142	42,859,679	9,711,996	-	32,776,155	371,529	0.000231	814,567,264	100%	2.4274277

1	1	2016	1.69	0	2704.68	0	295300.59	181.13	16600	62.28	0	78069.13	0.000642	1975 Hourl	2016	-4.76	400	18.010668	0	108.14328	50.120381
2	2	2016	0.14	0	4267	0	295300.91	291.41	16600	121.03	0	117904.5	0.002618	1975 Hourl	2016	-3.05	400	6.084232	0	1352.0269	308.67401
3	3	2016	3.94	0	5995.51	0	295304.84	418.55	16600	258.68	0	161529.3	0.006532	1975 Hourl	2016	-1.53	400	427.218928	0	10130.6	1055.1092
4	4	2016	5.65	0	7942.02	0	295302.38	666.84	16600	400.13	0	205663.6	0.008986	1975 Hourl	2016	0	400	842.79694	0	28556.074	1848.0932
5	5	2016	2.59	0	11195.15	0	295297.47	1157.81	16600	587.05	0	287550.6	0.006532	1975 Hourl	2016	1.53	400	280.836808	0	42929.041	1878.2806
6	6	2016	13.72	0	15529.04	0	295303.72	2276.2	16600	1151.43	0	391276.7	0.002618	1975 Hourl	2016	3.05	400	596.254736	0	46811.417	1024.3624
7	7	2016	33.91	0	22125.16	0	295299.59	4931.26	16600	1795.28	0	559387.9	0.000642	1975 Hourl	2016	4.76	400	361.385652	0	25500.79	359.12706
8	8	2016	0	0	2400.13	0	296220.66	152.76	16600	88.02	0	96858.29	0.000642	1976 Hourl	2016	-4.76	400	0	0	135.62856	62.183022
9	9	2016	0	0	3535.77	0	296217.66	226.21	16600	175.94	0	129701.3	0.002618	1976 Hourl	2016	-3.05	400	0	0	1628.6143	339.5579
10	10	2016	0.89	0	5447.18	0	296223.19	369.44	16600	278.96	0	186143.6	0.006532	1976 Hourl	2016	-1.53	400	96.503768	0	9925.6701	1215.89
11	11	2016	3.01	0	7169.49	0	296220.44	574.98	16600	557.56	0	241836	0.008986	1976 Hourl	2016	0	400	448.994476	0	35920.824	2173.1379
12	12	2016	4.6	0	9804.48	0	296215.75	1027.39	16600	803.69	0	314082	0.006532	1976 Hourl	2016	1.53	400	498.78352	0	51470.609	2051.5834
13	13	2016	16.98	0	13683.83	0	296018.47	1907.99	16600	1379.11	0	421435.3	0.002618	1976 Hourl	2016	3.05	400	737.930424	0	49405.605	1103.3177
14	14	2016	42.55	0	17063.22	0	296216.97	3516.64	16600	2042.44	0	543472.4	0.000642	1976 Hourl	2016	4.76	400	453.46386	0	22374.087	348.90927
15	15	2016	2.77	0	5638.71	0	295305.47	354.02	16600	83.01	0	171704.6	0.000642	1977 Hourl	2016	-4.76	400	29.520444	0	300.5005	110.23433
16	16	2016	14.78	0	8074.1	0	295302.84	535.11	16600	223.32	0	240526	0.002618	1977 Hourl	2016	-3.05	400	642.321064	0	4720.5368	629.69717
17	17	2016	19.38	0	12297.79	0	295302.88	863.21	16600	307.34	0	338967.3	0.006532	1977 Hourl	2016	-1.53	400	2101.396656	0	24688.365	2214.1343
18	18	2016	60.6	0	17895.21	0	295303.72	1487.77	16600	590.93	0	472208.6	0.008986	1977 Hourl	2016	0	400	9039.55656	0	95025.301	4243.266
19	19	2016	219.11	0	24270.66	0	295301.09	2716.75	16600	927.9	0	631486.9	0.006532	1977 Hourl	2016	1.53	400	23758.36023	0	147105.51	4124.8723
20	20	2016	834.53	0	33766.68	0	295302.03	5468.25	16600	1489.19	0	874100.5	0.002618	1977 Hourl	2016	3.05	400	36267.67236	0	131646.14	2288.3951
21	21	2016	3257.27	0	40845	0	295300.09	9883.78	16600	2332.37	0	1113949	0.000642	1977 Hourl	2016	4.76	400	34713.37784	0	61160.549	715.15542
22	22	2016	0	0	2937.23	0	295303.28	185.68	16600	70.42	0	96664.77	0.000642	1978 Hourl	2016	-4.76	400	0	0	132.79111	62.058782
23	23	2016	9.29	0	4607.17	0	295304.81	305.17	16600	203.58	0	143549	0.002618	1978 Hourl	2016	-3.05	400	403.732252	0	2455.4946	375.81115
24	24	2016	4.36	0	6479.96	0	295297.44	449.02	16600	275.72	0	193651.5	0.006532	1978 Hourl	2016	-1.53	400	472.760032	0	11670.428	1264.9318
25	25	2016	19.17	0	8425.53	0	295305.03	734.41	16600	535.2	0	259053.9	0.008986	1978 Hourl	2016	0	400	2859.542892	0	40520.962	2327.8579
26	26	2016	53.01	0	12715.75	0	295301.81	1428.27	16600	938.02	0	376512.4	0.006532	1978 Hourl	2016	1.53	400	5747.937912	0	77911.265	2459.379
27	27	2016	193.04	0	16801.76	0	295299.69	2565.33	16600	1378.08	0	493072.1	0.002618	1978 Hourl	2016	3.05	400	8389.286752	0	60617.616	1290.8627
28	28	2016	697.62	0	22682.4	0	295305.53	5368.94	16600	2215.79	0	679309.3	0.000642	1978 Hourl	2016	4.76	400	7434.675864	0	32266.557	436.11656
29	29	2016	0	0	1959.32	0	295929.81	120.68	16600	77.12	0	77256.04	0.000642	1979 Hourl	2016	-4.76	400	0	0	97.007971	49.598378
30	30	2016	0.99	0	3030.12	0	295927.66	198.94	16600	138.91	0	119712.2	0.002618	1979 Hourl	2016	-3.05	400	43.024212	0	1101.9528	313.40641
31	31	2016	2.01	0	4478.81	0	295927.38	327.92	16600	238.17	0	159114.4	0.006532	1979 Hourl	2016	-1.53	400	217.946712	0	6967.8031	1039.335
32	32	2016	1.99	0	6581.3	0	295929.91	562.17	16600	468.37	0	224740.8	0.008986	1979 Hourl	2016	0	400	296.843524	0	27699.197	2019.521
33	33	2016	4.11	0	8999.84	0	295932.41	966.82	16600	749.52	0	301255.4	0.006532	1979 Hourl	2016	1.53	400	445.652232	0	44061.998	1967.8001
34	34	2016	21.91	0	12736.24	0	295930.09	1842.42	16600	1382.91	0	414299.6	0.002618	1979 Hourl	2016	3.05	400	952.182308	0	46111.027	1084.6364
35	35	2016	71.74	0	17136.78	0	295931.56	3626.99	16600	2259.93	0	565274.5	0.000642	1979 Hourl	2016	4.76	400	764.547528	0	24863.327	362.90624
36	36	2016	1.68	0	6615.14	0	295479.31	394.72	16600	70.58	0	168985.1	0.000642	1980 Hourl	2016	-4.76	400	17.904096	0	299.74761	108.48843
37	37	2016	13.33	0	10851.37	0	295482.19	688.04	16600	251.6	0	251425.3	0.002618	1980 Hourl	2016	-3.05	400	579.305804	0	7147.6759	658.23133
38	38	2016	25.51	0	14775.88	0	295480.69	1034.37	16600	328.31	0	333358	0.006532	1980 Hourl	2016	-1.53	400	2766.079912	0	31687.184	2177.4941
39	39	2016	39.29	0	19784.38	0	295483.25	1723.17	16600	723.52	0	441445.1	0.008986	1980 Hourl	2016	0	400	5860.795004	0	128629.15	3966.8252
40	40	2016	117.81	0	26490	0	295480.59	3158.81	16600	994.11	0	588615.9	0.006532	1980 Hourl	2016	1.53	400	12774.27967	0	172013.52	3844.8388
41	41	2016	356.35	0	33760.3	0	295482.44	5567.22	16600	1866.67	0	741826.5	0.002618	1980 Hourl	2016	3.05	400	15486.54338	0	164984.63	1942.1019
42	42	2016	1068.45	0	42141.66	0	295482.25	10180.6	16600	2784.84	0	959877	0.000642	1980 Hourl	2016	4.76	400	11386.68534	0	75343.695	616.24102
43	43	2016	2.19	0	1606.87	0	296013.88	118.12	16600	67.41	0	57060.5	0.000642	1981 Hourl	2016	-4.76	400	23.339268	0	69.540867	36.632841
44	44	2016	4.18	0	2990.27	0	296013.03	198.22	16600	129.04	0	87148.87	0.002618	1981 Hourl	2016	-3.05	400	181.657784	0	1010.1931	228.15574
45	45	2016	2.35	0	4237.29	0	296011.75	300.25	16600	227.88	0	124037.1	0.006532	1981 Hourl	2016	-1.53	400	254.81332	0	6307.2577	810.21053
46	46	2016	5.78	0	5954.79	0	296012.22	515.19	16600	410.9	0	170790	0.008986	1981 Hourl	2016	0	400	862.188728	0	21987.153	1534.7189
47	47	2016	12.81	0	8182.3	0	296013.44	830.1	16600	538.33	0	235012.2	0.006532	1981 Hourl	2016	1.53	400	1389.003672	0	28772.007	1535.0994
48	48	2016	68.09	0	11876.35	0	296011.53	1729.21	16600	1240.42	0	332174	0.002618	1981 Hourl	2016	3.05	400	2959.109692	0	38567.491	869.6314
49	49	2016	168.68	0	15695.43	0	294904.69	3609.21	16600	1592.94	0	460779	0.000642	1981 Hourl	2016	4.76	400	1797.656496	0	16051.206	295.82013
50	50	2016	0.97	0	2029.65	0	296814.22	141	16600	43.91	0	76334.52	0.000642	1982 Hourl	2016	-4.76	400	10.337484	0	57.21628	49.006762
51	51	2016	0.7	0	3164.67	0	296815.06	219.85	16600	117.83	0	106709.6	0.002618	1982 Hourl	2016	-3.05	400	30.42116	0	976.23405	279.3656
52	52	2016	1.06	0	5075.17	0	296817.69	364.17	16600	204.06	0	157444.8	0.006532	1982 Hourl	2016	-1.53	400	114.937072	0	6764.7952	1028.4294
53	53	2016	4.02	0	7521.63	0	296814.75	619.63	16600	381.78	0	227420.1	0.008986	1982 Hourl	2016	0	400	599.653752	0	25804.269	2043.5972
54	54	2016	26.96	0	9768.73	0	296813.97	987.31	16600	591.82	0	296639.6	0.006532	1982 Hourl	2016	1.53	400	2923.305152	0	37763.646	1937.6497
55	55	2016	189.81	0	13856.6	0	296813.78	2030.82	16600	1052.48	0	408586.5	0.002618	1982 Hourl	2016	3.05	400	8248.914828	0	38180.374	1069.6794
56	56	2016	671.98	0	17802.14	0	296814.25	4114.01	16600	1713.12	0	538425.3	0.000642	1982 Hourl	2016	4.76	400	7161.425256	0	19579.204	345.66901
57	57	2016	28.36	0	16867.22	0	295752.91	891.92	16600	127.08	0	298832	0.000642	1983 Hourl	2016	-4.76	400	302.238192	0	1376.1182	191.85012
58	58	2016	88.11	0	24142.52	0	295759.59	1472.31	16600	360.28	0	405238.8	0.002618	1983 Hourl	2016	-3.05	400	3829.154868	0	22771.54	1060.9152
59	59	2016	306.42	0	29881.14	0	295760.69	2340.85	16600	611.38	0	509576.4	0.006532	1983 Hourl	2016	-1.53	400	33225.4883	0	119331.35	3328.5527
60	60	2016	1072.78	0	37766.58	0	295759.31	4619.32	16600	1157.44	0	657992.1	0.008986	1983 Hourl	2016	0	400	160024.0179	0	392800.98	5912.7166
61	61	2016	2868.04	0	46560.68	0	295761.44	8124.95	16600	1771.05	0	832569.7	0.006532	1983 Hourl	2016	1.53	400	310985.0188	0	538637.16	5438.3455
62	62	2016	8785.38	0	51880.93	0	295755.91	12049.86	16600	2556.59	0	1030773	0.002618	1983 Hourl	2016	3.05	400	381802.0723	0	347246.98	2698.5645
63	63	2016	19182.9	0	56568.66	0	295757.06	16441.35	16600	3020.93	0	1266707	0.000642	1983 Hourl	2016	4.76	400	204436.0019	0	109711.36	813.22606
64	64	2016	0.59	0	2191.67	0	295299.5	140.17	16600	59.37	0	71446.05	0.000642	1984 Hourl	2016	-4.76	400	6.287748	0	83.536686	45.868364
65	65	2016	2.9	0	3361.7	0	295300.22	224.37	16600	118.56	0	107041.5	0.002618	1984 Hourl	2016	-3.05	400	126.03052	0	1043.4383	280.23473
66	66	2016	1.04	0	4577.44	0	295300.97	332.87	16600	196.06	0	139432.8	0.006532	1984 Hourl	2016	-1.53	400	112.768448	0	5862.1623	910.77525
67	67	2016	2.14	0	6856.99	0	295302.31	573.43	16600	479.65	0	196515.3	0.008986	1984 Hourl	2016	0	400	319.218664	0	29554.552	1765.886
68	68	2016	17.37	0	9418.4	0	295302.62	1000	16600	856.2	0	258756.4	0.006532	1984 Hourl	2016	1.53	400	1883.449944	0	52674.271	1690.197
69	69	2016	69.21	0	13192.66	0	295299.34	1858.13	16600	1373.54	0	354908.3	0.002618	1984 Hourl	2016	3.05	400	3007.783548	0	47439.852	929.14985
70	70	2016	262.6	0	16993.33	0	295302.25	3694.04	16600	1959.9	0	482719	0.000642	1984 Hourl	2016	4.76	400	2798.58072	0	21381.956	309.90561
71	71	2016	0.06	0	1192.43	0	295932.41	81.88	16600	45.12	0	43245.95	0.000642	1985 Hourl	2016	-4.76	400	0.639432	0	34.541168	27.7639
72	72	2016	2.74	0	1745.3	0	295931.59	125.35	16600	137.77	0	63953.77	0.002618	1985 Hourl	2016	-3.05	400	119.077112	0	629.49805	167.43097
73	73	2016	0.07	0	2694.1	0	295931.62	194.47	16600	197.42	0	92116.77	0.006532	1985 Hourl	2016	-1.53	400	7.590184	0	3474.1698	601.70674
74	74	2016	6	0	4400.69	0	295930.34	379	16600	575.53	0	142553.5	0.008986	1985 Hourl	2016	0	400	895.0056	0	22759.104	1280.9857
75	75	2016	2.39	0	6228.37	0	295930.56	641.19	16600	639.39	0	192181	0.006532	1985 Hourl	2016	1.53	400	259.150568	0	26012.759	1255.3263
76	76	2016	7.86	0	8781.9	0	295929.53	1236.61	16600	1091.15	0	264338.7	0.002618	1985 Hourl	2016	3.05	400	341.586168	0	25086.645	692.03861
77	77	2016	27.92	0	12604.88	0	295930.25	2672.81	16600	1946.4	0	378920.4	0.000642	1985 Hourl	2016	4.76	400	297.549024	0	15750.917	243.26691
78	78	2016	0.97	0	4986.4	0	295849.72	285.27	16600	72.22	0	130569.2	0.000642	1986 Hourl	2016	-4.76	400	10.337484	0	231.19563	83.825407
79	79	2016	1.12	0	7389.57	0	295845.41	458.8	16600	222.8	0	180260	0.002618	1986 Hourl	2016	-3.05	400	48.673856	0	4310.2652	471.92058
80	80	2016	5.07	0	11363.48	0	295845.97	754.2	16600	487.42	0	261356.1	0.006532	1986 Hourl	2016	-1.53	400	549.746184	0	36179.359	1707.1782
81	81	2016	4.87	0	14656.74	0	295850.59	1230.84	16600	854.58	0	341553.5	0.008986	1986 Hourl	2016	0	400	726.446212	0	112552.86	3069.1996
82	82	2016	13.06	0	20559.96	0	295843.47	2192.62	16600	1502.41	0	451534.8	0.006532	1986 Hourl	2016	1.53	400	1416.111472	0	201770.15	2949.4255
83	83	2016	21.71	0	26164.93	0	295843	3653.04	16600	2136.37	0	573030.7	0.002618	1986 Hourl	2016	3.05	400	943.490548	0	146340.89	1500.1945
84	84	2016	35.79	0	32353.82	0	295846.31	6641.41	16600	3081.3	0	738304	0.000642	1986 Hourl	2016	4.76	400	381.421188	0	64002.152	473.99118
85	85	2016	0.1	0	3874.73	0	296563	243.53	16600	55.81	0	111998.8	0.000642	1987 Hourl	2016	-4.76	400	1.06572	0	138.83165	71.903198
86	86	2016	2.31	0	6412.78	0	296560.25	404.09	16600	138.99	0	170110.6	0.002618	1987 Hourl	2016	-3.05	400	100.389828	0	2333.4556	445.34963
87	87	2016	2.66	0	9016.47	0	296563.81	605.12	16600	217.29	0	231052.4	0.006532	1987 Hourl	2016	-1.53	400	288.426992	0	12797.421	1509.2341
88	88	2016	9.72	0	12036.18	0	296563.81	1026.19	16600	524.53	0	293656.5	0.008986	1987 Hourl	2016	0	400	1449.909072	0	56731.651	2638.7971
89	89	2016	17.37	0	16264.64	0	296562.59	1751.36	16600	836.24	0	392835.4	0.006532	1987 Hourl	2016	1.53	400	1883.449944	0	88842.663	2566.0007
90	90	2016	44.83	0	23300.89	0	296561.34	3530.53	16600	1403.52	0	544071.3	0.002618	1987 Hourl	2016	3.05	400	1948.258004	0	85617.148	1424.3787
91	91	2016	116.41	0	29780.61	0	296562.34	6534.74	16600	2234.34	0	708029.8	0.000642	1987 Hourl	2016	4.76	400	1240.604652	0	42718.685	454.55513
92	92	2016	18.33	0	10682.98	0	296984.41	625.21	16600	156.88	0	210436	0.000642	1988 Hourl	2016	-4.76	400	195.346476	0	1075.9573	135.09992
93	93	2016	21.6	0	16208.85	0	296981.81	987.79	16600	274.63	0	303719.9	0.002618	1988 Hourl	2016	-3.05	400	938.71008	0	11653.861	795.13865
94	94	2016	46.88	0	22928.3	0	296980.72	1556.88	16600	419.87	0	413375.2	0.006532	1988 Hourl	2016	-1.53	400	5083.254656	0	62882.946	2700.1671
95	95	2016	82.19	0	31972.1	0	296983.78	2872.57	16600	784.44	0	549572.9	0.008986	1988 Hourl	2016	0	400	12260.08504	0	225370.62	4938.4616
96	96	2016	248.83	0	40206.76	0	296983.59	4980.25	16600	1406.79	0	685175.5	0.006532	1988 Hourl	2016	1.53	400	26980.9355	0	369466.04	4475.5666
97	97	2016	669.14	0	49652.56	0	296982.91	8540.72	16600	2104.06	0	863377.8	0.002618	1988 Hourl	2016	3.05	400	29080.02143	0	273507.61	2260.323
98	98	2016	1989.26	0	61700.48	0	296984.59	14266.48	16600	3382.96	0	1098637	0.000642	1988 Hourl	2016	4.76	400	21199.94167	0	134004.82	705.32467
99	99	2016	0	0	1987.72	0	295300.84	141.6	16600	64.88	0	65846.11	0.000642	1989 Hourl	2016	-4.76	400	0	0	82.794422	42.273203
100	100	2016	0.78	0	3379.9	0	295304.16	219.69	16600	124.54	0	101849.5	0.002618	1989 Hourl	2016	-3.05	400	33.897864	0	1102.0019	266.64189
101	101	2016	9.32	0	4915.65	0	295302.44	354.49	16600	258.18	0	147950.7	0.006532	1989 Hourl	2016	-1.53	400	1010.578784	0	8289.9083	966.41384
102	102	2016	2.7	0	7223.76	0	295303.84	580.84	16600	384.13	0	209397.9	0.008986	1989 Hourl	2016	0	400	402.75252	0	24934.918	1881.6492
103	103	2016	20.55	0	10248.56	0	295302.22	1080.11	16600	740.11	0	287480.6	0.006532	1989 Hourl	2016	1.53	400	2228.26116	0	49545.623	1877.8232
104	104	2016	15.78	0	13932.21	0	295303.94	1953.46	16600	1155.69	0	379983.2	0.002618	1989 Hourl	2016	3.05	400	685.779864	0	42153.245	994.79604
105	105	2016	38.9	0	18458.01	0	295301.22	4061.66	16600	1677.74	0	519594.6	0.000642	1989 Hourl	2016	4.76	400	414.56508	0	19881.29	333.57974
106	106	2016	5.81	0	3755.88	0	295302.88	226.01	16600	119.87	0	77354.3	0.000642	1990 Hourl	2016	-4.76	400	61.918332	0	289.03953	49.661461
107	107	2016	8.85	0	5636.35	0	295301.53	345.55	16600	266.93	0	114060.4	0.002618	1990 Hourl	2016	-3.05	400	384.61038	0	3938.8096	298.61007
108	108	2016	11.79	0	7763.91	0	295307.09	516.01	16600	355.72	0	153900.1	0.006532	1990 Hourl	2016	-1.53	400	1278.403848	0	18039.934	1005.2756
109	109	2016	48.84	0	11395.5	0	295304.62	1074.47	16600	881.13	0	206925.2	0.008986	1990 Hourl	2016	0	400	7285.345584	0	90227.679	1859.4297
110	110	2016	92.42	0	13879.62	0	295300.5	1742.9	16600	1141.43	0	262884.4	0.006532	1990 Hourl	2016	1.53	400	10021.2115	0	103483.96	1717.161
111	111	2016	366.86	0	17549.74	0	295300.84	3190.42	16600	1921.93	0	335382.2	0.002618	1990 Hourl	2016	3.05	400	15943.29537	0	88303.495	878.0307
112	112	2016	1117.6	0	21007.2	0	295302.69	5578.83	16600	3213.31	0	431309.2	0.000642	1990 Hourl	2016	4.76	400	11910.48672	0	43336.699	276.90049

1	**319**	**13,166**	**-**	**2,632**	274,571	28,054	-	168,447	78,069	0	72,430	0	0.1162855
2		961.93			636,664	2,324	-	516,435	117,905	0.001909	83,866	0%	0.7629114
3					1,777,852	65,404	-	1,550,919	161,529	0.001909	103,243	1%	2.7339686
4					3,477,294	93,790	-	3,177,840	205,664	0.001909	124,470	1%	5.9922242
5					6,902,657	42,994	-	6,572,113	287,551	0.001909	140,852	1%	7.5628149
6					18,499,631	227,752	-	17,880,603	391,277	0.001909	148,827	1%	5.9590916
7					40,843,151	562,906	-	39,720,857	559,388	0.001909	161,995	1%	3.1658689
8					308,118	-	-	211,259	96,858	0.001909	175,917	2%	0.0980719
9					751,785	-	-	622,083	129,701	0.001909	196,731	2%	0.5922178
10					1,720,463	14,774	-	1,519,545	186,144	0.001909	198,938	2%	2.4131821
11					4,289,223	49,966	-	3,997,421	241,836	0.001909	200,763	2%	5.1667703
12					8,270,205	76,360	-	7,879,763	314,082	0.001909	208,028	2%	6.7109115
13					19,574,810	281,868	-	18,871,507	421,435	0.001909	212,469	2%	4.9951178
14					36,100,405	706,330	-	34,850,603	543,472	0.001909	219,252	3%	2.2576829
15					685,756	45,982	-	468,069	171,705	0.001909	234,183	3%	0.2272808
16					2,288,982	245,348	-	1,803,108	240,526	0.001909	236,620	3%	1.400918
17					4,440,278	321,708	-	3,779,603	338,967	0.001909	262,728	3%	5.6384877
18					12,052,985	1,005,960	-	10,574,816	472,209	0.001909	280,244	3%	13.369101
19					26,789,458	3,637,226	-	22,520,745	631,487	0.005927	299,904	4%	17.745811
20					65,012,301	13,853,198	-	50,285,002	874,101	0.001909	346,236	4%	14.315879
21					150,450,284	54,070,682	-	95,265,653	1,113,949	0.001909	353,386	4%	6.3453868
22					303,505	-	-	206,840	96,665	0.005927	435,351	5%	0.1192066
23					1,235,691	154,214	-	937,928	143,549	0.005927	461,112	6%	0.7989351
24					2,052,682	72,376	-	1,786,655	193,652	0.001909	475,384	6%	2.9329986
25					5,086,620	318,222	-	4,509,344	259,054	0.001909	476,928	6%	6.5994083
26					13,184,106	879,966	-	11,927,628	376,512	0.001909	478,404	6%	9.3294596
27					26,851,705	3,204,464	-	23,154,169	493,072	0.005927	533,488	7%	6.7160339
28					62,519,236	11,580,492	-	50,259,435	679,309	0.001909	561,847	7%	3.4468595
29					228,359	-	-	151,103	77,256	0.005927	601,925	8%	0.0774766
30					557,060	16,434	-	420,914	119,712	0.005927	625,035	8%	0.5208249
31					1,259,199	33,366	-	1,066,718	159,114	0.005927	641,222	9%	2.1419734
32					3,340,258	33,034	-	3,082,483	224,741	0.005927	672,727	9%	5.0516596
33					7,115,041	68,226	-	6,745,560	301,255	0.005927	677,023	10%	6.3152682
34					18,391,079	363,706	-	17,613,074	414,300	0.005927	710,745	11%	4.8234556
35					40,484,082	1,190,884	-	38,727,923	565,275	0.001909	751,382	11%	2.3285276
36					663,770	27,888	-	466,897	168,985	0.005927	764,110	11%	0.2534102
37					3,202,908	221,278	-	2,730,205	251,425	0.001909	765,779	11%	1.8012887
38					5,607,893	423,466	-	4,851,069	333,358	0.005927	777,254	12%	6.7565048
39					15,408,054	652,214	-	14,314,395	441,445	0.005927	823,024	13%	15.484406
40					28,878,236	1,955,646	-	26,333,974	588,616	0.005927	848,760	13%	20.633347
41					69,676,576	5,915,410	-	63,019,339	741,827	0.005927	881,342	14%	14.574982
42					136,053,927	17,736,270	-	117,357,780	959,877	0.005927	947,434	14%	6.5359452
43					201,734	36,354	-	108,319	57,061	0.005927	997,324	15%	0.075833
44					542,401	69,388	-	385,864	87,149	0.009822	1,017,774	16%	0.51894
45					1,128,641	39,010	-	965,594	124,037	0	1,056,725	17%	1.961233
46					2,713,561	95,948	-	2,446,823	170,790	0.009822	1,070,799	18%	4.6294973
47					4,852,436	212,646	-	4,404,778	235,012	0.005927	1,071,126	19%	5.4222132
48					16,194,130	1,130,294	-	14,731,662	332,174	0.005927	1,148,491	19%	4.5270718
49					28,262,745	2,800,088	-	25,001,878	460,779	0.001909	1,182,348	19%	2.3171128
50					181,558	16,102	-	89,122	76,335	0.001909	1,193,433	20%	0.090522
51					491,223	11,620	-	372,893	106,710	0.001909	1,241,265	20%	0.5755673
52					1,210,680	17,596	-	1,035,639	157,445	0.001909	1,394,686	20%	2.3787584
53					3,165,760	66,732	-	2,871,608	227,420	0.005927	1,563,109	21%	5.5679952
54					6,525,505	447,536	-	5,781,330	296,640	0.001909	1,586,836	21%	6.4491089
55					18,143,227	3,150,846	-	14,583,794	408,586	0.005927	1,625,448	21%	5.3166868
56					42,190,495	11,154,868	-	30,497,202	538,425	0.005927	1,877,790	22%	2.6411944
57					2,913,094	470,776	-	2,143,486	298,832	0.009822	1,891,229	23%	0.5726126
58					10,565,932	1,462,626	-	8,698,067	405,239	0.009822	1,900,160	24%	3.8545076
59					23,864,880	5,086,572	-	18,268,731	509,576	0.009822	2,171,043	25%	15.290432
60					62,178,690	17,808,148	-	43,712,550	657,992	0.009822	2,184,307	26%	41.50921
61					130,903,326	47,609,464	-	82,461,292	832,570	0.009822	2,303,220	27%	53.072173
62					279,506,348	145,837,308	-	132,638,267	1,030,773	0.009822	2,316,129	28%	31.546533
63					490,592,809	318,436,140	-	170,889,962	1,266,707	0.005927	2,325,769	28%	10.555347
64					211,359	9,794	-	130,119	71,446	0.005927	2,486,171	29%	0.0899891
65					553,745	48,140	-	398,563	107,042	0.009822	2,686,638	30%	0.5874007
66					1,054,150	17,264	-	897,453	139,433	0.001909	2,724,172	30%	2.1743068
67					3,520,995	35,524	-	3,288,955	196,515	0.009822	2,836,953	31%	5.152842
68					8,611,133	288,342	-	8,064,034	258,756	0.001909	2,856,286	31%	6.532
69					19,624,440	1,148,886	-	18,120,646	354,908	0.00763	2,932,150	32%	4.8645843
70					38,147,106	4,359,160	-	33,305,227	482,719	0.005927	2,949,289	33%	2.3715737
71					98,044	996	-	53,802	43,246	0.009822	2,951,737	34%	0.052567
72					349,888	45,484	-	240,450	63,954	0.009822	3,063,025	35%	0.3281663
73					625,148	1,162	-	531,869	92,117	0.009822	3,148,473	36%	1.270278
74					2,774,883	99,600	-	2,532,729	142,553	0.005927	3,231,996	36%	3.405694
75					4,214,212	39,674	-	3,982,357	192,181	0.005927	3,299,871	37%	4.1882531
76					9,977,185	130,476	-	9,582,370	264,339	0.009822	3,362,214	38%	3.237445
77					25,376,531	463,472	-	24,534,138	378,920	0.00763	3,450,250	39%	1.715944
78					506,789	16,102	-	360,118	130,569	0.009822	3,570,505	40%	0.1831433
79					1,845,248	18,592	-	1,646,396	180,260	0.009822	3,791,345	41%	1.2011384
80					5,884,306	84,162	-	5,538,787	261,356	0.00763	3,899,250	41%	4.9264344
81					12,947,752	80,842	-	12,525,357	341,553	0.005927	4,223,203	42%	11.060328
82					31,557,820	216,796	-	30,889,490	451,535	0.005927	4,336,662	42%	14.322194
83					56,831,388	360,386	-	55,897,972	573,031	0.009822	4,614,337	43%	9.5636587
84					101,024,244	594,114	-	99,691,826	738,304	0.009822	4,919,649	44%	4.2637852
85					329,907	1,660	-	216,249	111,999	0.00763	5,175,769	45%	0.1563463
86					1,099,769	38,346	-	891,312	170,111	0.00763	5,257,549	46%	1.0579076
87					2,234,397	44,156	-	1,959,189	231,052	0.00763	5,272,600	47%	3.9526438
88					6,768,346	161,352	-	6,313,337	293,656	0.009822	5,280,102	48%	9.2213433
89					14,282,320	288,342	-	13,601,143	392,835	0.005927	5,460,317	48%	11.439884
90					33,991,514	744,178	-	32,703,265	544,071	0.00763	5,805,750	49%	9.2429275
91					69,180,444	1,932,406	-	66,540,008	708,030	0.00763	6,046,134	50%	4.1953031
92					2,190,660	304,278	-	1,675,946	210,436	0.00763	6,109,273	51%	0.4013848
93					5,113,716	358,560	-	4,451,436	303,720	0.009822	6,177,562	52%	2.5860342
94					10,818,489	778,208	-	9,626,905	413,375	0.001909	6,389,648	52%	10.16954
95					26,994,121	1,364,354	-	25,080,194	549,573	0.009822	6,506,477	53%	25.812914
96					61,378,221	4,130,578	-	56,562,468	685,176	0.005927	6,517,823	53%	32.530993
97					116,443,067	11,107,724	-	104,471,965	863,378	0.001909	6,582,506	54%	22.359605
98					242,850,608	33,021,716	-	208,730,256	1,098,637	0	6,832,562	55%	9.1590802
99					194,809	-	-	128,963	65,846	0.009822	6,837,474	55%	0.0909072
100					535,730	12,948	-	420,933	101,849	0.005927	7,263,587	56%	0.5751484
101					1,571,785	154,712	-	1,269,123	147,951	0.00763	7,367,500	57%	2.3155287
102					3,029,081	44,820	-	2,774,863	209,398	0.002261	7,522,720	57%	5.2194282
103					8,213,672	341,130	-	7,585,062	287,481	0.00763	7,576,297	58%	7.0552785
104					16,743,247	261,948	-	16,101,316	379,983	0.00763	7,923,540	59%	5.1141583
105					32,133,076	645,740	-	30,967,742	519,595	0.009822	8,054,407	60%	2.6075857
106					624,018	96,446	-	450,217	77,354	0.009822	8,371,464	61%	0.1450984
107					1,765,481	146,910	-	1,504,511	114,060	0.002261	8,792,369	61%	0.9046499
108					3,111,392	195,714	-	2,761,778	153,900	0.00763	9,296,114	62%	3.3705773
109					11,058,586	810,744	-	10,040,917	206,925	0.00763	9,429,208	62%	9.6551874
110					17,639,671	1,534,172	-	15,842,615	262,884	0.00763	9,638,427	63%	11.384623
111					40,154,630	6,089,876	-	33,729,372	335,382	0.005927	9,747,542	64%	8.3525196
112					86,486,115	18,552,160	-	67,502,646	431,309	0.00763	9,855,780	64%	3.5816089

113	113	2016	3.42	0	5771.15	0	296218.81	332.88	16600	115.02	0	153941.1	0.000642	1991 Hourl	2016	-4.76	400	36.447624	0	426.15811	98.830199	874,511	56,772	-	663,798	153,941	0.00763	10,330,119	65%	0.213709
114	114	2016	7.68	0	9789.37	0	296216.56	591	16600	247.94	0	230249.7	0.002618	1991 Hourl	2016	-3.05	400	333.763584	0	6354.3478	602.79361	2,784,914	127,488	-	2,427,176	230,250	0.00763	11,025,558	66%	1.547238
115	115	2016	5.68	0	12431.4	0	296215.94	853.68	16600	462.66	0	289990.8	0.006532	1991 Hourl	2016	-1.53	400	615.889216	0	37568.873	1894.2196	6,135,790	94,288	-	5,751,512	289,991	0.005927	11,078,725	67%	5.5762378
116	116	2016	10.63	0	17797.08	0	296215.34	1518.47	16600	813.1	0	394760.3	0.008986	1991 Hourl	2016	0	400	1585.651588	0	130034.66	3547.3157	15,042,024	176,458	-	14,470,806	394,760	0.009822	11,165,167	68%	13.644971
117	117	2016	20.07	0	23364.15	0	296217.28	2565	16600	1296.73	0	505476.5	0.006532	1991 Hourl	2016	1.53	400	2176.214184	0	197899.97	3301.7726	31,135,633	333,162	-	30,296,994	505,477	0.009822	11,303,481	69%	16.75458
118	118	2016	85.41	0	28917.81	0	296218.19	4266.51	16600	1707.06	0	639652.9	0.002618	1991 Hourl	2016	3.05	400	3711.816108	0	129236.1	1674.6113	51,421,896	1,417,806	-	49,364,437	639,653	0	12,201,880	70%	11.169723
119	119	2016	249.45	0	37279.56	0	296214.59	7882.03	16600	2865.74	0	827736.8	0.000642	1991 Hourl	2016	4.76	400	2658.43854	0	68587.124	531.40703	111,802,133	4,140,870	-	106,833,526	827,737	0.009822	12,204,075	70%	5.0602633
120	120	2016	2.13	0	1384.16	0	295303.09	91.48	16600	59.15	0	42440.41	0.000642	1992 Hourl	2016	-4.76	400	22.699836	0	52.562507	27.246743	159,671	35,358	-	81,873	42,440	0.002261	12,810,360	71%	0.0587302
121	121	2016	1.94	0	1879.18	0	295306.19	131.59	16600	121.25	0	56746.81	0.002618	1992 Hourl	2016	-3.05	400	84.310072	0	596.51281	148.56315	316,801	32,204	-	227,851	56,747	0.00763	13,480,480	71%	0.3445026
122	122	2016	3.19	0	2644.93	0	295304.56	191.61	16600	190.27	0	80294.59	0.006532	1992 Hourl	2016	-1.53	400	345.895528	0	3287.2344	524.48426	636,499	52,954	-	503,251	80,295	0.00763	13,490,727	72%	1.2515965
123	123	2016	1.54	0	4331.06	0	295303.47	357.14	16600	362.64	0	121186.2	0.008986	1992 Hourl	2016	0	400	229.718104	0	14113.552	1088.9791	1,717,366	25,564	-	1,570,616	121,186	0.002261	13,907,592	72%	3.20926
124	124	2016	17.56	0	6105.81	0	295302.41	631.26	16600	608.96	0	169682.7	0.006532	1992 Hourl	2016	1.53	400	1904.051872	0	24287.244	1108.3675	4,179,373	291,496	-	3,718,194	169,683	0.002261	14,188,811	73%	4.1233903
125	125	2016	73.85	0	7218.87	0	295305	1005.6	16600	1002.02	0	213090.6	0.002618	1992 Hourl	2016	3.05	400	3209.43238	0	18937.178	557.87124	8,672,453	1,225,910	-	7,233,452	213,091	0.002261	15,224,493	73%	2.6326608
126	126	2016	246.91	0	9798.95	0	295302.5	2137.71	16600	1601.16	0	298761.9	0.000642	1992 Hourl	2016	4.76	400	2631.369252	0	10072.779	191.80515	20,087,155	4,098,706	-	15,689,687	298,762	0.000791	15,730,539	73%	1.3724098
127	127	2016	4.4	0	4776.82	0	296391.94	303.22	16600	118.59	0	118653	0.000642	1993 Hourl	2016	-4.76	400	46.89168	0	363.68214	76.175194	758,176	73,040	-	566,483	118,653	0.002261	16,550,101	73%	0.1946672
128	128	2016	5.14	0	7669.9	0	296389.09	492.93	16600	136.97	0	179672.1	0.002618	1993 Hourl	2016	-3.05	400	223.378232	0	2750.33	470.38153	1,315,542	85,324	-	1,050,546	179,672	0.002261	17,455,143	73%	1.2904907
129	129	2016	8.4	0	10083.67	0	296391.62	681.13	16600	234.34	0	236632.3	0.006532	1993 Hourl	2016	-1.53	400	910.82208	0	15435.163	1545.6819	2,739,079	139,440	-	2,363,007	236,632	0.00763	17,867,792	74%	4.4491412
130	130	2016	12.9	0	14339.17	0	296389.81	1223.35	16600	460.9	0	330342.5	0.008986	1993 Hourl	2016	0	400	1924.26204	0	59387.786	2968.4578	7,153,406	214,140	-	6,608,923	330,343	0.002261	18,017,266	74%	10.993023
131	131	2016	30.65	0	19930.95	0	296387.91	2214.47	16600	920.41	0	451108.5	0.006532	1993 Hourl	2016	1.53	400	3323.41628	0	119827.23	2946.6405	19,304,544	508,790	-	18,344,646	451,108	0.002261	18,153,501	75%	14.464918
132	132	2016	113.47	0	26149.99	0	296390.62	4063.41	16600	1483.58	0	588568.1	0.002618	1993 Hourl	2016	3.05	400	4931.270036	0	101566.89	1540.8714	41,267,772	1,883,602	-	38,795,602	588,568	0.002261	18,518,764	75%	10.638007
133	133	2016	383.47	0	33167.43	0	296389.25	7696.37	16600	2464.39	0	765187.8	0.000642	1993 Hourl	2016	4.76	400	4086.716484	0	52475.464	491.25057	88,868,273	6,365,602	-	81,737,483	765,188	0.002261	18,863,622	75%	4.9410695
134	134	2016	3.6	0	2904.17	0	295753.44	189.19	16600	52.77	0	86568.33	0.000642	1994 Hourl	2016	-4.76	400	38.36592	0	98.388459	55.576868	299,581	59,760	-	153,253	86,568	0.009822	19,185,493	76%	0.12146
135	135	2016	3.81	0	4733.18	0	295759.53	304.76	16600	145.3	0	129850.9	0.002618	1994 Hourl	2016	-3.05	400	165.578028	0	1800.4799	339.94976	880,828	63,246	-	687,731	129,851	0.00763	19,191,959	77%	0.7978617
136	136	2016	10.47	0	6703	0	295750.97	472.8	16600	211.35	0	183898.2	0.006532	1994 Hourl	2016	-1.53	400	1135.274664	0	9253.7476	1201.223	1,774,379	173,802	-	1,416,679	183,898	0.002261	19,408,503	77%	3.0883296
137	137	2016	13.87	0	9779.94	0	295755	776.71	16600	400.74	0	249058.6	0.008986	1994 Hourl	2016	0	400	2068.954612	0	35218.049	2238.0408	4,398,514	230,242	-	3,919,213	249,059	0.002261	19,617,572	77%	6.9795161
138	138	2016	42.62	0	14033.97	0	295756.94	1497.99	16600	764.38	0	346445.3	0.006532	1994 Hourl	2016	1.53	400	4621.337744	0	70070.632	2262.9805	11,781,223	707,492	-	10,727,286	346,445	0.005927	19,884,810	78%	9.7848707
139	139	2016	142.39	0	18527.63	0	295756.06	2738.33	16600	1292.12	0	446923.4	0.002618	1994 Hourl	2016	3.05	400	6188.098532	0	62674.714	1170.0454	26,750,519	2,363,674	-	23,939,921	446,923	0.00763	19,910,153	79%	7.1689479
140	140	2016	571.28	0	25254.62	0	295755.47	5845.81	16600	2093.45	0	641866.3	0.000642	1994 Hourl	2016	4.76	400	6088.245216	0	33942.08	412.07815	62,994,399	9,483,248	-	52,869,284	641,866	0.000791	21,650,364	79%	3.75301
141	141	2016	8.36	0	7789.88	0	295485.34	444.53	16600	122.46	0	215924.3	0.000642	1995 Hourl	2016	-4.76	400	89.094192	0	612.43507	138.62339	1,308,649	138,776	-	953,949	215,924	0.000791	22,552,422	79%	0.2853883
142	142	2016	11.96	0	11535.41	0	295483.91	701.74	16600	224.19	0	308326.9	0.002618	1995 Hourl	2016	-3.05	400	519.767248	0	6770.4715	807.1999	3,092,986	198,536	-	2,586,124	308,327	0.002261	22,588,473	79%	1.8371553
143	143	2016	33.74	0	15929.09	0	295481.44	1113.03	16600	479.65	0	406741.9	0.006532	1995 Hourl	2016	-1.53	400	3658.468688	0	49907.015	2656.8381	8,607,214	560,084	-	7,640,388	406,742	0.00763	22,610,069	80%	7.270312
144	144	2016	59.33	0	20293.79	0	295482.75	1758.18	16600	625.15	0	518383	0.008986	1995 Hourl	2016	0	400	8850.113708	0	114002.35	4658.1893	14,189,924	984,878	-	12,686,663	518,383	0.002261	23,147,784	80%	15.799005
145	145	2016	194.31	0	28939.69	0	295482.44	3512.13	16600	1283.82	0	691099.3	0.006532	1995 Hourl	2016	1.53	400	21069.26647	0	242685.7	4514.2605	41,069,998	3,225,546	-	37,153,353	691,099	0.009822	24,812,381	81%	22.941233
146	146	2016	482.61	0	35529.28	0	295484.03	5973.8	16600	1844.72	0	853543.9	0.002618	1995 Hourl	2016	3.05	400	20973.65147	0	171587.84	2234.578	74,406,443	8,011,326	-	65,541,573	853,544	0.002261	26,141,513	81%	15.639408
147	147	2016	1802.72	0	45769.07	0	295481.59	10551	16600	3082.84	0	1110426	0.000642	1995 Hourl	2016	4.76	400	19211.94758	0	90585.378	712.89319	172,134,297	29,925,152	-	141,098,720	1,110,426	0.002261	26,522,721	81%	6.773742
148	148	2016	0.01	0	2264.6	0	295393.72	150.33	16600	51.3	0	72540.02	0.000642	1996 Hourl	2016	-4.76	400	0.106572	0	74.583695	46.570693	188,880	166	-	116,174	72,540	0.00763	28,366,956	82%	0.0965119
149	149	2016	2.76	0	3425.06	0	295391.88	232.82	16600	119.15	0	104604.4	0.002618	1996 Hourl	2016	-3.05	400	119.946288	0	1068.3951	273.85421	558,516	45,816	-	408,096	104,604	0.000791	29,026,383	82%	0.6095228
150	150	2016	1.2	0	5654.26	0	295390.94	393.07	16600	283.52	0	154512.5	0.006532	1996 Hourl	2016	-1.53	400	130.11744	0	10471.422	1009.2758	1,777,528	19,920	-	1,603,096	154,513	0.00763	29,675,424	83%	2.5675332
151	151	2016	0.73	0	7409.7	0	295389.16	608.44	16600	380.75	0	206976.2	0.008986	1996 Hourl	2016	0	400	108.892348	0	25351.692	1859.8878	3,040,337	12,118	-	2,821,243	206,976	0.00763	29,982,891	84%	5.4674418
152	152	2016	5.32	0	9924.3	0	295389.97	1045.67	16600	690.76	0	276195.5	0.006532	1996 Hourl	2016	1.53	400	576.853984	0	44778.881	1804.1093	7,219,817	88,312	-	6,855,309	276,196	0.00763	30,569,799	85%	6.8303164
153	153	2016	11.55	0	14260.49	0	295388.22	2031.55	16600	1223.31	0	391694.4	0.002618	1996 Hourl	2016	3.05	400	501.94914	0	45671.01	1025.4559	18,028,424	191,730	-	17,445,000	391,694	0.000791	31,162,784	85%	5.3185979
154	154	2016	30.58	0	19804.14	0	295388.06	4192.75	16600	2072.88	0	527161.6	0.000642	1996 Hourl	2016	4.76	400	325.897176	0	26355.131	338.43772	42,086,395	507,628	-	41,051,606	527,162	0.002261	31,386,638	85%	2.6917455
155	155	2016	2.43	0	4346.1	0	296243.53	251.17	16600	89.19	0	123456.6	0.000642	1997 Hourl	2016	-4.76	400	25.896996	0	248.8576	79.259124	551,423	40,338	-	387,629	123,457	0.00763	31,440,938	86%	0.1612511
156	156	2016	2.19	0	6079.96	0	296242.19	378.44	16600	288.24	0	168389	0.002618	1997 Hourl	2016	-3.05	400	95.174772	0	4588.0127	440.84235	1,957,231	36,354	-	1,752,488	168,389	0.00763	31,599,257	86%	0.9907559
157	157	2016	9.35	0	8754.63	0	296243.31	605.09	16600	388.86	0	226549.7	0.006532	1997 Hourl	2016	-1.53	400	1013.83172	0	22237.054	1479.8224	3,786,085	155,210	-	3,404,325	226,550	0.009822	32,349,736	87%	3.9524479
158	158	2016	6.61	0	11850.82	0	296245.03	1001.46	16600	654.89	0	306885.1	0.008986	1997 Hourl	2016	0	400	985.997836	0	69740.198	2757.6692	8,177,595	109,726	-	7,760,984	306,885	0.000791	32,901,328	87%	8.9991196
159	159	2016	24.34	0	16793.3	0	296240.03	1816.51	16600	1084.15	0	411793.6	0.006532	1997 Hourl	2016	1.53	400	2639.215408	0	118924.57	2689.836	19,022,294	404,044	-	18,206,456	411,794	0.002261	34,381,348	88%	11.865443
160	160	2016	55.29	0	22110.73	0	296245.62	3273.82	16600	1703.63	0	525979	0.002618	1997 Hourl	2016	3.05	400	2402.837052	0	98616.141	1377.0129	39,112,296	917,814	-	37,668,503	525,979	0.000791	34,824,418	88%	8.5708608
161	161	2016	168.16	0	28693.45	0	296242.72	6176.96	16600	2694.28	0	683701.3	0.000642	1997 Hourl	2016	4.76	400	1792.114752	0	49631.857	438.93624	80,783,346	2,791,456	-	77,308,188	683,701	0	38,131,137	88%	3.9656083
162	162	2016	0.01	0	2543.54	0	296283.31	168.35	16600	71.96	0	82308	0.000642	1998 Hourl	2016	-4.76	400	0.106572	0	117.50727	52.841736	265,507	166	-	183,033	82,308	0.000791	38,324,401	88%	0.1080807
163	163	2016	0.72	0	3680.21	0	296279.28	248.7	16600	112.94	0	122910	0.002618	1998 Hourl	2016	-3.05	400	31.290336	0	1088.1532	321.77838	550,505	11,952	-	415,643	122,910	0.000791	38,671,582	88%	0.6510966
164	164	2016	3.6	0	5720.39	0	296280.16	407.53	16600	223.68	0	173012.4	0.006532	1998 Hourl	2016	-1.53	400	390.35232	0	8357.9346	1130.1171	1,512,309	59,760	-	1,279,537	173,012	0.000791	39,288,797	88%	2.661986
165	165	2016	3.98	0	8115.18	0	296280.56	669.86	16600	408.83	0	240330.7	0.008986	1998 Hourl	2016	0	400	593.687048	0	29813.113	2159.6117	3,624,128	66,068	-	3,317,729	240,331	0	40,272,939	89%	6.019362
166	166	2016	10.66	0	11565.54	0	296281.56	1231.9	16600	681.04	0	331790.1	0.006532	1998 Hourl	2016	1.53	400	1155.876592	0	51449.921	2167.2527	8,385,341	176,956	-	7,876,595	331,790	0.000231	42,243,944	89%	8.0467708
167	167	2016	11.42	0	15277.63	0	296281.72	2214.83	16600	1078.09	0	432771.8	0.002618	1998 Hourl	2016	3.05	400	496.299496	0	43120.188	1132.9966	17,093,004	189,572	-	16,470,660	432,772	0.000791	42,634,042	89%	5.7984249
168	168	2016	23.05	0	19934.92	0	296281.88	4423.07	16600	1826.29	0	579802	0.000642	1998 Hourl	2016	4.76	400	245.64846	0	23373.259	372.23286	37,369,377	382,630	-	36,406,945	579,802	0.000791	42,879,345	89%	2.8396109
169	169	2016	17.94	0	11086.59	0	295301.84	605.77	16600	110.34	0	199656.4	0.000642	1999 Hourl	2016	-4.76	400	191.190168	0	785.35497	128.17941	1,720,755	297,804	-	1,223,294	199,656	0.000791	43,707,499	89%	0.3889043
170	170	2016	52.61	0	16832.9	0	295300.88	1033.32	16600	355.17	0	289331.6	0.002618	1999 Hourl	2016	-3.05	400	2286.367468	0	15651.821	757.47015	7,141,199	873,326	-	5,978,541	289,332	0.000791	43,949,367	89%	2.7052318
171	171	2016	182.36	0	22510.09	0	295300.56	1739.49	16600	622.29	0	380955.6	0.006532	1999 Hourl	2016	-1.53	400	19773.51363	0	91498.975	2488.4022	17,415,936	3,027,176	-	14,007,804	380,956	0.00763	46,726,744	90%	11.362349
172	172	2016	572.2	0	27687.14	0	295301	3105.51	16600	1072.31	0	489548.2	0.008986	1999 Hourl	2016	0	400	85353.70072	0	266787.13	4399.0803	39,677,265	9,498,520	-	29,689,197	489,548	0.000791	48,188,379	90%	27.906113
173	173	2016	1615.24	0	35485.25	0	295302.53	5552.44	16600	1566.66	0	633515.7	0.006532	1999 Hourl	2016	1.53	400	175142.4115	0	363135.58	4138.1247	83,039,821	26,812,984	-	55,593,322	633,516	0.000791	48,232,799	90%	36.268538
174	174	2016	4374.16	0	40597	0	295301.44	8775.44	16600	2319.89	0	774611.2	0.002618	1999 Hourl	2016	3.05	400	190095.7446	0	246564.74	2027.9321	167,566,242	72,611,056	-	94,180,574	774,611	0.002261	48,551,195	91%	22.974102
175	175	2016	11059.82	0	44749.1	0	295302.94	13404.76	16600	3069.99	0	979746.4	0.000642	1999 Hourl	2016	4.76	400	117866.7137	0	88197.504	628.9972	321,952,048	183,593,012	-	137,379,290	979,746	0.009822	51,155,773	92%	8.6058559
176	176	2016	0	0	1862.37	0	295650.09	126.11	16600	143.28	0	64471.08	0.000642	2000 Hourl	2016	-4.76	400	0	0	171.31152	41.390433	331,311	-	-	266,840	64,471	0.000231	51,374,001	92%	0.0809626
177	177	2016	1.08	0	2942.89	0	295649.75	205.64	16600	120.51	0	100947.9	0.002618	2000 Hourl	2016	-3.05	400	46.935504	0	928.46761	264.28171	473,524	17,928	-	354,648	100,948	0.002261	51,436,617	92%	0.5383655
178	178	2016	2.21	0	4486.98	0	295652.41	311.23	16600	221.54	0	141374.5	0.006532	2000 Hourl	2016	-1.53	400	239.632952	0	6493.1055	923.45836	1,172,106	36,686	-	994,046	141,375	0.000231	52,207,589	92%	2.0329544
179	179	2016	3.65	0	6128	0	295648.44	489.67	16600	432.67	0	191502.6	0.008986	2000 Hourl	2016	0	400	544.46174	0	23825.496	1720.8421	2,903,494	60,590	-	2,651,402	191,503	0.002261	53,872,594	92%	4.4001746
180	180	2016	12.74	0	8499.35	0	295652.44	867.51	16600	664.33	0	257911.6	0.006532	2000 Hourl	2016	1.53	400	1381.413488	0	36882.11	1684.6786	6,115,769	211,484	-	5,646,373	257,912	0.00763	55,854,865	93%	5.6665753
181	181	2016	33.83	0	12002.47	0	295654.41	1642.5	16600	1039.12	0	356653.3	0.002618	2000 Hourl	2016	3.05	400	1470.211204	0	32651.713	933.71834	13,390,238	561,578	-	12,472,007	356,653	0.000231	57,385,195	93%	4.300065
182	182	2016	105.97	0	15664.98	0	295655.28	3272.39	16600	1752.01	0	472773.9	0.000642	2000 Hourl	2016	4.76	400	1129.343484	0	17619.819	303.52084	29,677,078	1,759,102	-	27,445,202	472,774	0.002261	60,122,915	93%	2.1008744
183	183	2016	0.31	0	2497.9	0	296597.41	177.11	16600	43.18	0	64937.45	0.000642	2001 Hourl	2016	-4.76	400	3.303732	0	69.245685	41.689843	177,943	5,146	-	107,859	64,937	0.000791	60,213,538	93%	0.1137046
184	184	2016	0.16	0	4174.55	0	296600.09	277.45	16600	97.34	0	100540.1	0.002618	2001 Hourl	2016	-3.05	400	6.953408	0	1063.8261	263.21401	509,547	2,656	-	406,351	100,540	0.000791	64,190,254	93%	0.7263641
185	185	2016	1.28	0	5997.52	0	296598.09	423.95	16600	221.03	0	141054.8	0.006532	2001 Hourl	2016	-1.53	400	138.791936	0	8659.0272	921.36963	1,487,935	21,248	-	1,325,632	141,055	0.000791	66,090,425	93%	2.7692414
186	186	2016	5.69	0	8081.41	0	296599.59	662.25	16600	406.04	0	199564.4	0.008986	2001 Hourl	2016	0	400	848.763644	0	29486.442	1793.286	3,575,394	94,454	-	3,281,376	199,564	0.002261	68,562,286	94%	5.9509785
187	187	2016	2.47	0	11671.22	0	296598.84	1186.63	16600	491.66	0	282280.2	0.006532	2001 Hourl	2016	1.53	400	267.825064	0	37482.393	1843.8545	6,061,554	41,002	-	5,738,272	282,280	0.002261	68,954,971	94%	7.7510672
188	188	2016	8.3	0	15570.16	0	296596.84	2261.18	16600	975.94	0	381849.4	0.002618	2001 Hourl	2016	3.05	400	360.70804	0	39781.929	999.68181	15,715,171	137,780	-	15,195,542	381,849	0.000231	70,297,148	94%	5.9197692
189	189	2016	18.93	0	20797.84	0	296600.44	4549.61	16600	1732.1	0	528634.2	0.000642	2001 Hourl	2016	4.76	400	201.740796	0	23127.369	339.38318	36,866,811	314,238	-	36,023,939	528,634	0.002261	71,842,712	94%	2.9208496
190	190	2016	2.55	0	6498.23	0	295302.41	406.46	16600	71.42	0	163146.2	0.000642	2002 Hourl	2016	-4.76	400	27.17586	0	297.9545	104.73987	669,580	42,330	-	464,104	163,146	0.002261	75,480,098	94%	0.2609473
191	191	2016	6.84	0	9492.11	0	295300.69	611.86	16600	160.34	0	227500.8	0.002618	2002 Hourl	2016	-3.05	400	297.258192	0	3984.5042	595.59715	1,863,010	113,544	-	1,521,965	227,501	0.000231	75,653,939	94%	1.6018495
192	192	2016	17.89	0	14102.09	0	295303.84	970.74	16600	332.34	0	313690.7	0.006532	2002 Hourl	2016	-1.53	400	1939.834168	0	30613.45	2049.0277	5,297,353	296,974	-	4,686,689	313,691	0.000791	77,428,069	94%	6.3408737
193	193	2016	20.7	0	18822.33	0	295301.41	1582.26	16600	521.5	0	418684.3	0.008986	2002 Hourl	2016	0	400	3087.76932	0	88205.184	3762.2974	10,578,149	343,620	-	9,815,845	418,684	0.000231	82,606,057	94%	14.218188
194	194	2016	57.2	0	25928.81	0	295302.59	2910.58	16600	936.46	0	561138	0.006532	2002 Hourl	2016	1.53	400	6202.26464	0	158605.41	3665.3534	25,791,951	949,520	-	24,281,293	561,138	0.002261	82,725,706	95%	19.011909
195	195	2016	107.12	0	33553.18	0	295298.09	5287.09	16600	1555.5	0	719213.5	0.002618	2002 Hourl	2016	3.05	400	4655.306656	0	136638.58	1882.9009	54,689,377	1,778,192	-	52,191,971	719,214	0.000231	85,074,808	95%	13.841602
196	196	2016	324.67	0	42659.32	0	295303.22	9858.24	16600	2534.89	0	941405.1	0.000642	2002 Hourl	2016	4.76	400	3460.073124	0	69423.751	604.38207	114,467,611	5,389,522	-	108,136,684	941,405	0.000231	86,167,089	95%	6.3289901
197	197	2016	0.09	0	1901.29	0	295949.62	131.9	16600	53.05	0	69318.1	0.000642	2003 Hourl	2016	-4.76	400	0.959148	0	64.754325	44.50222	171,676	1,494	-	100,863	69,318	0.000231	86,805,183	95%	0.0846798
198	198	2016	0.55	0	3355.29	0	295949.38	227.66	16600	133.17	0	105412.8	0.002618	2003 Hourl	2016	-3.05	400	23.90234	0	1169.7852	275.97061	561,367	9,130	-	446,824	105,413	0.000231	86,887,084	95%	0.5960139
199	199	2016	1.32	0	5120.68	0	295949	367.78	16600	215.75	0	155134.6	0.006532	2003 Hourl	2016	-1.53	400	143.129184	0	7216.4668	1013.3393	1,281,833	21,912	-	1,104,787	155,135	0.000231	87,544,516	95%	2.402339
200	200	2016	7.82	0	6503.63	0	295948.44	552.26	16600	362.15	0	201366	0.008986	2003 Hourl	2016	0	400	1166.490632	0	21164.632	1809.4748	2,686,468	129,812	-	2,355,290	201,366	0.002261	88,471,493	95%	4.9626084
201	201	2016	21.27	0	9007.36	0	295952.03	944.93	16600	661.3	0	274043.7	0.006532	2003 Hourl	2016	1.53	400	2306.331624	0	38908.297	1790.0533	6,583,693	353,082	-	5,956,567	274,044	0.00763	93,035,003	96%	6.1722828
202	202	2016	72.41	0	12836.97	0	295950.41	1817.11	16600	1135.06	0	374393.2	0.002618	2003 Hourl	2016	3.05	400	3146.851708	0	38146.174	980.16137	16,147,130	1,202,006	-	14,570,731	374,393	0.000231	97,968,556	96%	4.757194
203	203	2016	314.83	0	17902.14	0	295951	3957.49	16600	1867.99	0	532868.7	0.000642	2003 Hourl	2016	4.76	400	3355.206276	0	21469.134	342.10171	39,200,065	5,226,178	-	33,441,018	532,869	0.000231	99,243,351	96%	2.5407086
204	204	2016	0	0	865.36	0	295298.84	64.39	16600	53.45	0	35101.85	0.000642	2004 Hourl	2016	-4.76	400	0	0	29.694742	22.535388	81,355	-	-	46,253	35,102	0.000231	101,837,893	96%	0.0413384
205	205	2016	1.12	0	1483.22	0	295301.16	104.95	16600	103.36	0	60056.09	0.002618	2004 Hourl	2016	-3.05	400	48.673856	0	401.35411	157.22684	231,954	18,592	-	153,306	60,056	0.000791	102,274,532	96%	0.2747591
206	206	2016	0.22	0	2403.11	0	295301.56	168.96	16600	153.25	0	85216.12	0.006532	2004 Hourl	2016	-1.53	400	23.854864	0	2405.5828	556.6317	457,145	3,652	-	368,277	85,216	0.000231	104,340,708	96%	1.1036467
207	207	2016	4.2	0	3099.29	0	295300.81	274.63	16600	452.61	0	114316.2	0.008986	2004 Hourl	2016	0	400	626.50392	0	12605.288	1027.2457	1,586,806	69,720	-	1,402,770	114,316	0.000231	106,349,744	96%	2.4678252
208	208	2016	8.87	0	4554.44	0	295302.09	457.67	16600	458.42	0	165877.3	0.006532	2004 Hourl	2016	1.53	400	961.784744	0	13637.813	1083.5102	2,400,966	147,242	-	2,087,846	165,877	0.002261	107,884,129	96%	2.9895004
209	209	2016	42.45	0	6476.66	0	295303.09	885.26	16600	935.5	0	229060.5	0.002618	2004 Hourl	2016	3.05	400	1844.82606	0	15862.241	599.68034	6,992,646	704,670	-	6,058,915	229,060	0.000791	110,967,735	96%	2.3176107
210	210	2016	162.05	0	8774.92	0	295298.41	1881.08	16600	1595.19	0	308235.4	0.000642	2004 Hourl	2016	4.76	400	1726.99926	0	8986.5007	197.88713	16,995,930	2,690,030	-	13,997,665	308,235	0.00763	114,726,495	97%	1.2076534
211	211	2016	7.33	0	6557.47	0	296224.16	408.9	16600	105.65	0	144226.8	0.000642	2005 Hourl	2016	-4.76	400	78.117276	0	444.77548	92.593593	958,701	121,678	-	692,797	144,227	0.000791	118,024,875	97%	0.2625138
212	212	2016	9.55	0	9787.03	0	296225.94	619.75	16600	231.69	0	207958.3	0.002618	2005 Hourl	2016	-3.05	400	415.03154	0	5936.4642	544.43486	2,634,045	158,530	-	2,267,557	207,958	0.000791	119,339,270	97%	1.6225055
213	213	2016	22.87	0	13808.16	0	296222.81	962.88	16600	490.08	0	280727	0.006532	2005 Hourl	2016	-1.53	400	2479.821544	0	44202.717	1833.7087	7,427,472	379,642	-	6,767,103	280,727	0.000231	129,781,131	97%	6.2895322
214	214	2016	39.68	0	17477.01	0	296223.88	1524.43	16600	613.57	0	367544.1	0.008986	2005 Hourl	2016	0	400	5918.970368	0	96360.194	3302.7511	11,749,601	658,688	-	10,723,369	367,544	0.000791	133,244,896	97%	13.698528
215	215	2016	118.65	0	25458.81	0	296225.97	2984.56	16600	1079.06	0	514514.1	0.006532	2005 Hourl	2016	1.53	400	12865.36188	0	179444.38	3360.8064	29,955,688	1,969,590	-	27,471,584	514,514	0.000231	136,251,695	97%	19.495146
216	216	2016	316.3	0	31012.36	0	296224.62	4995.7	16600	1773.58	0	629656.4	0.002618	2005 Hourl	2016	3.05	400	13746.01844	0	143997.6	1648.4404	60,883,138	5,250,580	-	55,002,901	629,656	0.000791	143,749,663	97%	13.078743
217	217	2016	928.48	0	39860.01	0	296229.88	9420.75	16600	2580.8	0	853694.5	0.000642	2005 Hourl	2016	4.76	400	9894.997056	0	66042.998	548.07187	119,137,176	15,412,768	-	102,870,714	853,695	0.002261	146,256,369	98%	6.0481215
218	218	2016	2.3	0	5133.3	0	295578.34	316	16600	82.62	0	126565.3	0.000642	2006 Hourl	2016	-4.76	400	24.51156	0	272.2807	81.254903	588,859	38,180	-	424,113	126,565	0.000791	146,780,114	98%	0.202872
219	219	2016	5.65	0	7627.02	0	295581.88	468.55	16600	191.87	0	180172.5	0.002618	2006 Hourl	2016	-3.05	400	245.54222	0	3831.1716	471.69168	1,737,359	93,790	-	1,463,396	180,173	0.000231	155,850,628	98%	1.2266639
220	220	2016	9.49	0	11288.96	0	295578.91	765.32	16600	283.22	0	256857	0.006532	2006 Hourl	2016	-1.53	400	1029.012088	0	20884.497	1677.7897	3,611,650	157,534	-	3,197,259	256,857	0.000791	159,995,807	98%	4.9990702
221	221	2016	27.36	0	15020.75	0	295584.69	1261.67	16600	545.23	0	334393.8	0.008986	2006 Hourl	2016	0	400	4081.225536	0	73593.215	3004.8622	8,978,333	454,176	-	8,189,764	334,394	0.000791	163,964,936	98%	11.337367
222	222	2016	46.28	0	21454.02	0	295581.22	2442.83	16600	985.78	0	452204.8	0.006532	2006 Hourl	2016	1.53	400	5018.195936	0	138144.9	2953.8017	22,369,397	768,248	-	21,148,944	452,205	0.000231	166,162,842	98%	15.956566
223	223	2016	106.11	0	28265.27	0	295579.44	4459.54	16600	1697.31	0	579082.3	0.002618	2006 Hourl	2016	3.05	400	4611.413268	0	125598.35	1516.0376	50,315,434	1,761,426	-	47,974,925	579,082	0.000231	188,156,832	98%	11.675076
224	224	2016	393.7	0	36331.69	0	295582.5	8524.44	16600	2722.53	0	779417.1	0.000642	2006 Hourl	2016	4.76	400	4195.73964	0	63502.862	500.38577	106,228,953	6,535,420	-	98,914,116	779,417	0.00763	198,203,258	99%	5.4726905

225	225	2016	7.81	0	13995.03	0	296275.09	768.98	16600	99.03	0	277650.3	0.000642	2007 Hourl	2016	-4.76	400	83.232732	0	889.76566	178.25146	1,793,224	129,646	-	1,385,928	277,650	0.000791	207,539,921	99%	0.4936852
226	226	2016	41.87	0	20931.98	0	296277.94	1272.02	16600	294.27	0	384834.3	0.002618	2007 Hourl	2016	-3.05	400	1819.619956	0	16125.974	1007.4961	7,239,530	695,042	-	6,159,654	384,834	0.000231	212,025,030	99%	3.3301484
227	227	2016	54.45	0	27970.8	0	296272.75	1900.06	16600	442.84	0	509502.9	0.006532	2007 Hourl	2016	-1.53	400	5904.07884	0	80909.2	3328.0727	13,799,962	903,870	-	12,386,589	509,503	0.002261	216,072,490	99%	12.411192
228	228	2016	236.73	0	35095.59	0	296274.5	3315.64	16600	813.71	0	641351.6	0.008986	2007 Hourl	2016	0	400	35312.44595	0	256618.89	5763.1852	33,128,702	3,929,718	-	28,557,633	641,352	0.000231	219,332,688	99%	29.794341
229	229	2016	774.35	0	44407.19	0	296277.06	6079.4	16600	1347.26	0	804921.7	0.006532	2007 Hourl	2016	1.53	400	83963.69972	0	390796.7	5257.7485	73,487,162	12,854,210	-	59,828,031	804,922	0.000231	241,172,075	99%	39.710641
230	230	2016	2170.78	0	53531.81	0	296275.19	10179.73	16600	2150.93	0	990136.1	0.002618	2007 Hourl	2016	3.05	400	94339.49386	0	301444.83	2592.1762	152,168,260	36,034,948	-	115,143,176	990,136	0.002261	250,886,396	99%	26.650533
231	231	2016	7146.8	0	62187.61	0	296277.22	15593.44	16600	3257.44	0	1243042	0.000642	2007 Hourl	2016	4.76	400	76164.87696	0	130051.49	798.03297	322,452,330	118,636,880	-	202,572,408	1,243,042	0.000231	250,913,995	99%	10.010988
232	232	2016	0.05	0	2648.42	0	295693.59	173.59	16600	46.69	0	85730.77	0.000642	2008 Hourl	2016	-4.76	400	0.53286	0	79.386337	55.039154	210,215	830	-	123,655	85,731	0.000231	266,729,236	99%	0.1114448
233	233	2016	2.66	0	4585.89	0	295695.97	305.41	16600	124.81	0	133142.3	0.002618	2008 Hourl	2016	-3.05	400	115.600408	0	1498.4514	348.56662	749,663	44,156	-	572,365	133,142	0.000791	269,442,165	99%	0.7995634
234	234	2016	2.95	0	6063.7	0	295693.22	443.13	16600	301.42	0	173039.2	0.006532	2008 Hourl	2016	-1.53	400	319.87204	0	11938.67	1130.2922	2,049,730	48,970	-	1,827,720	173,039	0.000231	283,903,314	99%	2.8945252
235	235	2016	2.61	0	8793.46	0	295695.03	711.86	16600	373.73	0	250664.9	0.008986	2008 Hourl	2016	0	400	389.327436	0	29531.409	2252.4749	3,580,371	43,326	-	3,286,380	250,665	0.000231	312,325,086	99%	6.396774
236	236	2016	4.36	0	12453.21	0	295697.31	1284.53	16600	660.26	0	335396	0.006532	2008 Hourl	2016	1.53	400	472.760032	0	53708.432	2190.8065	8,630,128	72,376	-	8,222,356	335,396	0.000231	326,234,164	99%	8.39055
237	237	2016	11.64	0	17396.55	0	295695.03	2465.6	16600	1176.57	0	462459.2	0.002618	2008 Hourl	2016	3.05	400	505.860432	0	53585.902	1210.7182	21,123,942	193,224	-	20,468,259	462,459	0.000791	350,936,284	99%	6.4549408
238	238	2016	33.65	0	22585.41	0	295694.94	4820.73	16600	1936.87	0	613910.1	0.000642	2008 Hourl	2016	4.76	400	358.61478	0	28084.292	394.13028	44,917,503	558,590	-	43,745,003	613,910	0.000791	354,607,800	100%	3.0949087
239	239	2016	0	0	1425.49	0	296140.22	98.24	16600	45.66	0	48487.91	0.000642	2009 Hourl	2016	-4.76	400	0	0	41.786415	31.129238	113,576	-	-	65,088	48,488	0.000231	372,652,382	100%	0.0630701
240	240	2016	0.02	0	2297.95	0	296141.34	157.54	16600	142.35	0	72528.2	0.002618	2009 Hourl	2016	-3.05	400	0.869176	0	856.38231	189.87883	399,973	332	-	327,113	72,528	0.002261	376,389,623	100%	0.4124397
241	241	2016	1.5	0	3283.62	0	296140	238.77	16600	172.86	0	99312.7	0.006532	2009 Hourl	2016	-1.53	400	162.6468	0	3707.606	648.71056	691,819	24,900	-	567,607	99,313	0.000791	528,125,220	100%	1.5596456
242	242	2016	8.52	0	4653.3	0	296141.72	395.82	16600	448.55	0	142682.3	0.008986	2009 Hourl	2016	0	400	1270.907952	0	18755.918	1282.1431	2,371,352	141,432	-	2,087,238	142,682	0.000231	542,591,506	100%	3.5568385
243	243	2016	27.23	0	7265.98	0	296140.97	781.1	16600	634.51	0	205077.6	0.006532	2009 Hourl	2016	1.53	400	2952.581576	0	30114.721	1339.5666	5,267,433	452,018	-	4,610,337	205,078	0.000231	563,772,889	100%	5.1021452
244	244	2016	110.43	0	9148.33	0	296143.66	1352.81	16600	973.44	0	268277.1	0.002618	2009 Hourl	2016	3.05	400	4799.155284	0	23314.207	702.3494	11,006,765	1,833,138	-	8,905,350	268,277	0.000231	614,189,934	100%	3.5416566
245	245	2016	437.74	0	12598.69	0	296142.97	2918.1	16600	1770.56	0	381815.8	0.000642	2009 Hourl	2016	4.76	400	4665.082728	0	14320.925	245.12571	29,955,036	7,266,484	-	22,306,737	381,816	0.0002310	768,395,664	100%	1.8734202

1	1	2016	0.77	0	1813.89	0	295300.59	125.75	16600	50.51	0	74640.04	0.000642	1975 Hourl	2016	-4.76	400	8.206044	0	58.819773	47.918906	**321**	**9,443**	**-**	**2,119**	179,042	12,782	-	91,620	74,640	0.001909	59,934	0
2	2	2016	0.55	0	3040.53	0	295300.91	209.78	16600	173.25	0	116415.4	0.002618	1975 Hourl	2016	-3.05	400	23.90234	0	1379.0886	304.77549		894.68			652,317	9,130	-	526,772	116,415	0.001909	69,093	0%
3	3	2016	3.1	0	4182.54	0	295304.84	309.64	16600	243.56	0	154676	0.006532	1975 Hourl	2016	-1.53	400	336.13672	0	6654.1448	1010.3438					1,224,835	51,460	-	1,018,699	154,676	0.001909	88,995	1%
4	4	2016	2.6	0	6436.43	0	295302.38	551.03	16600	410.19	0	224980.6	0.008986	1975 Hourl	2016	0	400	387.83576	0	23724.471	2021.6759					2,908,300	43,160	-	2,640,159	224,981	0	93,754	1%
5	5	2016	10.31	0	8504.67	0	295297.47	888.77	16600	690.2	0	293185.5	0.006532	1975 Hourl	2016	1.53	400	1117.925672	0	38342.339	1915.0877					6,334,255	171,146	-	5,869,923	293,186	0.001909	101,116	1%
6	6	2016	10.53	0	11874.53	0	295303.72	1668.71	16600	972.08	0	399573.7	0.002618	1975 Hourl	2016	3.05	400	457.621164	0	30219.556	1046.084					12,117,365	174,798	-	11,542,993	399,574	0.001909	102,834	1%
7	7	2016	12.19	0	16945.04	0	295299.59	3733.07	16600	1802.69	0	544733.7	0.000642	1975 Hourl	2016	4.76	400	129.911268	0	19610.952	349.71902					31,293,742	202,354	-	30,546,654	544,734	0.001909	109,155	1%
8	8	2016	0	0	1741.01	0	296220.66	109.18	16600	58.16	0	97284.69	0.000642	1976 Hourl	2016	-4.76	400	0	0	65.007085	62.456771					198,542	-	-	101,257	97,285	0.001909	116,854	2%
9	9	2016	0	0	2930.58	0	296217.66	182.4	16600	171.82	0	146692.7	0.002618	1976 Hourl	2016	-3.05	400	0	0	1318.2474	384.04154					650,225	-	-	503,532	146,693	0.001909	117,719	2%
10	10	2016	0.31	0	3678.5	0	296223.19	243.15	16600	232.44	0	179358.8	0.006532	1976 Hourl	2016	-1.53	400	33.613672	0	5585.0595	1171.5714					1,039,535	5,146	-	855,031	179,359	0.001909	137,549	2%
11	11	2016	0.13	0	5470.68	0	296220.44	437.61	16600	438.65	0	246716.1	0.008986	1976 Hourl	2016	0	400	19.391788	0	21563.828	2216.9905					2,648,588	2,158	-	2,399,714	246,716	0.001909	151,485	2%
12	12	2016	1.82	0	7277.07	0	296215.75	744.29	16600	728.35	0	322013.9	0.006532	1976 Hourl	2016	1.53	400	197.344784	0	34621.259	2103.3947					5,652,480	30,212	-	5,300,254	322,014	0.001909	154,552	2%
13	13	2016	6.9	0	10173.94	0	296018.47	1430.28	16600	1143.55	0	414545.8	0.002618	1976 Hourl	2016	3.05	400	299.86572	0	30458.883	1085.2809					12,163,495	114,540	-	11,634,409	414,546	0.001909	157,386	2%
14	14	2016	31.07	0	13065.53	0	296216.97	2695.59	16600	1994.1	0	538335.8	0.000642	1976 Hourl	2016	4.76	400	331.119204	0	16726.651	345.61158					27,108,071	515,762	-	26,053,973	538,336	0.001909	174,968	3%
15	15	2016	5.44	0	4052.94	0	295305.47	256.28	16600	82.14	0	173419.2	0.000642	1977 Hourl	2016	-4.76	400	57.975168	0	213.72725	111.33511					596,632	90,304	-	332,908	173,419	0.001909	175,059	3%
16	16	2016	5.22	0	6086.67	0	295302.84	396.76	16600	132.24	0	252869.2	0.002618	1977 Hourl	2016	-3.05	400	226.854936	0	2107.2314	662.01162					1,144,422	86,652	-	804,901	252,869	0.001909	184,367	3%
17	17	2016	9.36	0	8702.88	0	295302.88	578.03	16600	217.91	0	342912.4	0.006532	1977 Hourl	2016	-1.53	400	1014.916032	0	12387.576	2239.9039					2,394,733	155,376	-	1,896,445	342,912	0.001909	191,031	3%
18	18	2016	30.81	0	12804.86	0	295303.72	1082.1	16600	427.29	0	471088.8	0.008986	1977 Hourl	2016	0	400	4595.853756	0	49165.898	4233.2036					6,453,923	511,446	-	5,471,389	471,089	0.005927	192,280	4%
19	19	2016	170.53	0	18485.07	0	295301.09	2059.27	16600	799.99	0	630439.2	0.006532	1977 Hourl	2016	1.53	400	18490.77254	0	96594.374	4118.0285					18,249,108	2,830,798	-	14,787,871	630,439	0.001909	193,062	4%
20	20	2016	609.08	0	24319.21	0	295302.03	3936.73	16600	1303.66	0	833314.4	0.002618	1977 Hourl	2016	3.05	400	26469.8859	0	83001.023	2181.6172		2			42,648,024	10,110,728	-	31,703,981	833,314	0.005927	193,300	5%
21	21	2016	2555.84	0	30872.16	0	295300.09	7927.45	16600	2133.47	0	1107458	0.000642	1977 Hourl	2016	4.76	400	27238.09805	0	42285.219	710.98795					109,399,229	42,426,944	-	65,864,827	1,107,458	0.005927	194,590	5%
22	22	2016	0.47	0	2052.91	0	295303.28	130.63	16600	68.3	0	95669.73	0.000642	1978 Hourl	2016	-4.76	400	5.008884	0	90.017229	61.419967					243,685	7,802	-	140,214	95,670	0.001909	236,551	5%
23	23	2016	4.13	0	2975.31	0	295304.81	200.89	16600	194.24	0	135933.1	0.002618	1978 Hourl	2016	-3.05	400	179.484844	0	1513.0056	355.87283					782,415	68,558	-	577,924	135,933	0.001909	262,113	6%
24	24	2016	7.1	0	4789.66	0	295297.44	351.64	16600	329.91	0	199108.4	0.006532	1978 Hourl	2016	-1.53	400	769.86152	0	10321.584	1300.5761					1,897,125	117,860	-	1,580,157	199,108	0.001909	273,229	6%
25	25	2016	14.92	0	6533.59	0	295305.03	545.43	16600	565.59	0	269729.8	0.008986	1978 Hourl	2016	0	400	2225.580592	0	33206.264	2423.7915					4,212,735	247,672	-	3,695,333	269,730	0.005927	289,479	6%
26	26	2016	35.87	0	9485.56	0	295301.81	1066.65	16600	923.69	0	371229.9	0.006532	1978 Hourl	2016	1.53	400	3889.427144	0	57231.535	2424.8736					9,728,389	595,442	-	8,761,717	371,230	0.001909	302,398	7%
27	27	2016	173.35	0	12968.15	0	295299.69	2004.12	16600	1396.03	0	491699.6	0.002618	1978 Hourl	2016	3.05	400	7533.58298	0	47396.079	1287.2696					21,473,236	2,877,610	-	18,103,926	491,700	0.005927	311,712	7%
28	28	2016	480.49	0	16765.42	0	295305.53	4026.24	16600	2042.08	0	667063.5	0.000642	1978 Hourl	2016	4.76	400	5120.678028	0	21979.723	428.25479					42,879,526	7,976,134	-	34,236,329	667,064	0.005927	323,560	8%
29	29	2016	1.47	0	1454.64	0	295929.81	93.5	16600	59.11	0	83975.66	0.000642	1979 Hourl	2016	-4.76	400	15.666084	0	55.201581	53.912374					194,361	24,402	-	85,984	83,976	0.001909	330,127	8%
30	30	2016	0.16	0	2062.83	0	295927.66	144.37	16600	203.03	0	114004.4	0.002618	1979 Hourl	2016	-3.05	400	6.953408	0	1096.4613	298.46355					535,477	2,656	-	418,816	114,004	0.001909	346,476	8%
31	31	2016	2.52	0	3456.91	0	295927.38	246.34	16600	363.24	0	176498.3	0.006532	1979 Hourl	2016	-1.53	400	273.246624	0	8202.1539	1152.8866					1,474,018	41,832	-	1,255,688	176,498	0.005927	351,392	9%
32	32	2016	1.42	0	5328.9	0	295929.91	457.26	16600	527.05	0	235847.5	0.008986	1979 Hourl	2016	0	400	211.817992	0	25238.05	2119.3252					3,068,016	23,572	-	2,808,597	235,847	0.001909	372,383	9%
33	33	2016	1.08	0	6552.73	0	295932.41	681.49	16600	637.28	0	308287.7	0.006532	1979 Hourl	2016	1.53	400	117.105696	0	27277.134	2013.7351					4,502,139	17,928	-	4,175,924	308,288	0.005927	379,025	10%
34	34	2016	5.58	0	9261.87	0	295930.09	1312.25	16600	1086.12	0	414608.2	0.002618	1979 Hourl	2016	3.05	400	242.500104	0	26335.777	1085.4443					10,566,738	92,628	-	10,059,502	414,608	0.005927	386,458	10%
35	35	2016	38.88	0	12819.16	0	295931.56	2738.23	16600	1880.82	0	575273.1	0.000642	1979 Hourl	2016	4.76	400	414.351936	0	15478.962	369.32536					25,331,214	645,408	-	24,110,533	575,273	0.005927	390,584	11%
36	36	2016	2.11	0	4840.53	0	295479.31	301.74	16600	65.08	0	165266.8	0.000642	1980 Hourl	2016	-4.76	400	22.486692	0	202.24393	106.10129					515,315	35,026	-	315,022	165,267	0.001909	412,357	11%
37	37	2016	11.84	0	8501.2	0	295482.19	541.95	16600	220	0	257621.1	0.002618	1980 Hourl	2016	-3.05	400	514.552192	0	4896.3512	674.45214					2,324,429	196,544	-	1,870,264	257,621	0.005927	425,221	11%
38	38	2016	8.63	0	11096.56	0	295480.69	765.01	16600	281.86	0	335051.9	0.006532	1980 Hourl	2016	-1.53	400	935.761256	0	20429.982	2188.5591					3,605,986	143,258	-	3,127,676	335,052	0.005927	438,894	12%
39	39	2016	26.55	0	15091.31	0	295483.25	1289.64	16600	566.73	0	438049.7	0.008986	1980 Hourl	2016	0	400	3960.39978	0	76854.545	3936.3142					9,431,478	440,730	-	8,552,698	438,050	0.005927	440,070	13%
40	40	2016	98.47	0	20981.54	0	295480.59	2487.17	16600	1031.96	0	578549.2	0.006532	1980 Hourl	2016	1.53	400	10677.22026	0	141431.58	3779.0834					23,865,261	1,634,602	-	21,652,110	578,549	0.005927	455,518	13%
41	41	2016	277.43	0	27886.79	0	295482.44	4629.96	16600	1675.72	0	751303.5	0.002618	1980 Hourl	2016	3.05	400	12056.77488	0	122340.32	1966.9126					52,087,093	4,605,338	-	46,730,452	751,304	0.001909	463,718	13%
42	42	2016	801.64	0	35098.36	0	295482.25	8583.56	16600	2631.76	0	970896.3	0.000642	1980 Hourl	2016	4.76	400	8543.237808	0	59301.835	623.31543					106,648,580	13,307,224	-	92,370,460	970,896	0.009822	464,591	14%
43	43	2016	0	0	977.19	0	296013.88	71.42	16600	38.29	0	55947.85	0.000642	1981 Hourl	2016	-4.76	400	0	0	24.02146	35.91852					93,364	-	-	37,417	55,948	0.009822	482,759	15%
44	44	2016	1.34	0	2005.55	0	296013.03	143.59	16600	118.12	0	89069.99	0.002618	1981 Hourl	2016	-3.05	400	58.234792	0	620.19259	233.18523					348,210	22,244	-	236,896	89,070	0.001909	484,187	16%
45	45	2016	2.72	0	3278.47	0	296011.75	243.9	16600	651.88	0	125520.8	0.006532	1981 Hourl	2016	-1.53	400	294.932864	0	13959.988	819.90206					2,307,842	45,152	-	2,137,169	125,521	0	505,647	16%
46	46	2016	4	0	4151.76	0	296012.22	337.41	16600	370.13	0	174609.5	0.008986	1981 Hourl	2016	0	400	596.6704	0	13808.705	1569.041					1,777,700	66,400	-	1,536,691	174,610	0.009822	507,704	17%
47	47	2016	9.57	0	6267.26	0	296013.44	639.22	16600	696.72	0	240582.2	0.006532	1981 Hourl	2016	1.53	400	1037.686584	0	28522.144	1571.4832					4,765,970	158,862	-	4,366,525	240,582	0.001909	519,478	17%
48	48	2016	42.96	0	8792.93	0	296011.53	1279.03	16600	906.03	0	331172.5	0.002618	1981 Hourl	2016	3.05	400	1866.990048	0	20856.712	867.00971					9,010,967	713,136	-	7,966,658	331,173	0.005927	560,068	18%
49	49	2016	139.61	0	11644.22	0	294904.69	2614.95	16600	1720.83	0	459087	0.000642	1981 Hourl	2016	4.76	400	1487.851692	0	12864.218	294.73385					22,814,336	2,317,526	-	20,037,723	459,087	0.005927	640,035	19%
50	50	2016	0	0	1298.51	0	296814.22	88.45	16600	46.02	0	72414.78	0.000642	1982 Hourl	2016	-4.76	400	0	0	38.36427	46.490289					132,172	-	-	59,757	72,415	0.001909	654,623	19%
51	51	2016	1.81	0	1999.87	0	296815.06	146.46	16600	88.96	0	110223.3	0.002618	1982 Hourl	2016	-3.05	400	78.660428	0	465.76428	288.56468					318,178	30,046	-	177,908	110,223	0.005927	696,441	19%
52	52	2016	0.43	0	3120.63	0	296817.69	224.42	16600	149.63	0	152938.6	0.006532	1982 Hourl	2016	-1.53	400	46.625416	0	3050.0512	998.9952					627,017	7,138	-	466,940	152,939	0	736,587	20%
53	53	2016	0.86	0	4553.62	0	296814.75	367.47	16600	265.82	0	207952.8	0.008986	1982 Hourl	2016	0	400	128.284136	0	10877.043	1868.664					1,432,672	14,276	-	1,210,443	207,953	0.005927	762,997	21%
54	54	2016	18.7	0	7215.23	0	296813.97	719.24	16600	542.16	0	302365.6	0.006532	1982 Hourl	2016	1.53	400	2027.66344	0	25551.937	1975.052					4,524,595	310,420	-	3,911,809	302,366	0.001909	763,641	21%
55	55	2016	102.84	0	9556.07	0	296813.78	1356.49	16600	807.08	0	397684.2	0.002618	1982 Hourl	2016	3.05	400	4469.302992	0	20191.359	1041.1371					9,817,341	1,707,144	-	7,712,513	397,684	0.009822	965,929	22%
56	56	2016	479.7	0	12780.91	0	296814.25	3025.48	16600	1404.67	0	526689.2	0.000642	1982 Hourl	2016	4.76	400	5112.25884	0	11525.801	338.13445					26,442,670	7,963,020	-	17,952,961	526,689	0.005927	978,131	23%
57	57	2016	19.32	0	13048.82	0	295752.91	710.36	16600	168.27	0	298556.6	0.000642	1983 Hourl	2016	-4.76	400	205.897104	0	1409.6554	191.67336					2,814,994	320,712	-	2,195,725	298,557	0.005927	991,232	23%
58	58	2016	42.87	0	18653.68	0	295759.59	1127.6	16600	305.28	0	403076.8	0.002618	1983 Hourl	2016	-3.05	400	1863.078756	0	14908.451	1055.255					6,809,314	711,642	-	5,694,595	403,077	0.009822	998,432	24%
59	59	2016	215.73	0	24530.56	0	295760.69	1956.55	16600	544.17	0	523245.8	0.006532	1983 Hourl	2016	-1.53	400	23391.86278	0	87194.328	3417.8415					17,453,159	3,581,118	-	13,348,795	523,246	0.001909	999,314	24%
60	60	2016	845.51	0	31464.15	0	295759.31	3957.72	16600	1048	0	673282.7	0.008986	1983 Hourl	2016	0	400	126122.6975	0	296308.22	6050.1184					47,683,178	14,035,466	-	32,974,429	673,283	0.009822	1,083,557	25%
61	61	2016	2487.28	0	38423.36	0	295761.44	7046.98	16600	1707.53	0	839469.8	0.006532	1983 Hourl	2016	1.53	400	269698.7551	0	428558.25	5483.4167					107,737,358	41,288,848	-	65,609,040	839,470	0.009822	1,171,519	26%
62	62	2016	7456.64	0	41837.38	0	295755.91	10675.9	16600	2194.65	0	1026915	0.002618	1983 Hourl	2016	3.05	400	324056.6264	0	240380.59	2688.4624					216,625,545	123,780,224	-	91,818,406	1,026,915	0.009822	1,182,321	27%
63	63	2016	17639.44	0	46518.42	0	295757.06	15096.9	16600	2986.54	0	1292968	0.000642	1983 Hourl	2016	4.76	400	187987.04	0	89192.496	830.08566					433,036,794	292,814,704	-	138,929,122	1,292,968	0.009822	1,208,452	28%
64	64	2016	0.73	0	1523.94	0	295299.5	99.62	16600	49.01	0	70892.21	0.000642	1984 Hourl	2016	-4.76	400	7.779756	0	47.949888	45.512799					157,699	12,118	-	74,688	70,892	0.005927	1,231,866	29%
65	65	2016	0	0	2261.53	0	295300.22	155.05	16600	119.32	0	100801.8	0.002618	1984 Hourl	2016	-3.05	400	0	0	706.4562	263.89906					370,648	-	-	269,846	100,802	0.00763	1,260,485	30%
66	66	2016	2.19	0	3727.18	0	295300.97	260.58	16600	210.98	0	149423.3	0.006532	1984 Hourl	2016	-1.53	400	237.464328	0	5136.5064	976.03306					972,138	36,354	-	786,360	149,423	0.005927	1,273,718	30%
67	67	2016	4.66	0	4662.85	0	295302.31	390.8	16600	401.67	0	193502	0.008986	1984 Hourl	2016	0	400	695.121016	0	16830.122	1738.809					2,143,785	77,356	-	1,872,927	193,502	0.005927	1,323,462	31%
68	68	2016	18.99	0	6817.43	0	295302.62	700.07	16600	878.12	0	262790.2	0.006532	1984 Hourl	2016	1.53	400	2059.108488	0	39103.959	1716.5458					6,564,546	315,234	-	5,986,522	262,790	0.005927	1,419,887	32%
69	69	2016	52.69	0	10108.6	0	295299.34	1430.22	16600	1488.55	0	356062.4	0.002618	1984 Hourl	2016	3.05	400	2289.844172	0	39393.456	932.17139					16,277,873	874,654	-	15,047,157	356,062	0.009822	1,457,387	32%
70	70	2016	196.73	0	13459.22	0	295302.25	2846.11	16600	2068.26	0	494533.8	0.000642	1984 Hourl	2016	4.76	400	2096.590956	0	17871.461	317.4907					31,597,418	3,265,718	-	27,837,166	494,534	0.009822	1,565,718	33%
71	71	2016	0.12	0	892.5	0	295932.41	62.62	16600	92.15	0	44911.97	0.000642	1985 Hourl	2016	-4.76	400	1.278864	0	52.800568	28.833485					129,148	1,992	-	82,244	44,912	0.009822	1,628,499	34%
72	72	2016	0.53	0	1337.95	0	295931.59	90.74	16600	114.31	0	67780.65	0.002618	1985 Hourl	2016	-3.05	400	23.033164	0	400.39971	177.44974					229,520	8,798	-	152,941	67,781	0.005927	1,659,083	35%
73	73	2016	3.44	0	2060.02	0	295931.62	154.71	16600	380.81	0	96114.86	0.006532	1985 Hourl	2016	-1.53	400	373.003328	0	5124.1986	627.82227					937,695	57,104	-	784,476	96,115	0.009822	1,662,141	36%
74	74	2016	0.46	0	2951.58	0	295930.34	250.76	16600	322.93	0	133582.3	0.008986	1985 Hourl	2016	0	400	68.617096	0	8565.0394	1200.3707					1,094,372	7,636	-	953,154	133,582	0.00763	1,723,583	37%
75	75	2016	1.78	0	4388.43	0	295930.56	456.64	16600	615.49	0	196310.8	0.006532	1985 Hourl	2016	1.53	400	193.007536	0	17643.159	1282.3019					2,926,894	29,548	-	2,701,035	196,311	0.009822	1,777,344	38%
76	76	2016	5.97	0	5708.82	0	295929.53	768.88	16600	907.67	0	256987.3	0.002618	1985 Hourl	2016	3.05	400	259.449036	0	13565.755	672.79283					5,537,814	99,102	-	5,181,725	256,987	0.009822	1,824,675	39%
77	77	2016	4.5	0	8618.94	0	295930.25	1765.02	16600	1610.87	0	368702	0.000642	1985 Hourl	2016	4.76	400	47.9574	0	8913.5228	236.70668					14,327,394	74,700	-	13,883,992	368,702	0.001909	1,952,080	39%
78	78	2016	0	0	3476.9	0	295849.72	205.53	16600	148.8	0	124204.1	0.000642	1986 Hourl	2016	-4.76	400	0	0	332.14687	79.739007					641,567	-	-	517,363	124,204	0.009822	1,994,122	40%
79	79	2016	5.51	0	5794.21	0	295845.41	354.25	16600	228.82	0	184853.5	0.002618	1986 Hourl	2016	-3.05	400	239.457988	0	3471.0259	483.94649					1,602,151	91,466	-	1,325,831	184,854	0.00763	2,001,389	41%
80	80	2016	4.08	0	7671.82	0	295845.97	528.35	16600	358.46	0	245300	0.006532	1986 Hourl	2016	-1.53	400	442.399296	0	17963.265	1602.2993					3,063,069	67,728	-	2,750,041	245,300	0.005927	2,044,709	41%
81	81	2016	3.47	0	11452.44	0	295850.59	957.75	16600	720.49	0	336376.3	0.008986	1986 Hourl	2016	0	400	517.611572	0	74146.797	3022.6774					8,645,347	57,602	-	8,251,368	336,376	0.005927	2,107,814	42%
82	82	2016	3.93	0	14962.95	0	295843.47	1564.73	16600	1366.01	0	431579.9	0.006532	1986 Hourl	2016	1.53	400	426.134616	0	133511.07	2819.0798					20,936,357	65,238	-	20,439,539	431,580	0.009822	2,137,081	43%
83	83	2016	9.65	0	19528.92	0	295843	2736.56	16600	1756.72	0	563772.8	0.002618	1986 Hourl	2016	3.05	400	419.37742	0	89815.318	1475.9572					35,030,807	160,190	-	34,306,844	563,773	0.005927	2,244,116	43%
84	84	2016	19.65	0	26268.35	0	295846.31	5322.4	16600	2855.91	0	751915.9	0.000642	1986 Hourl	2016	4.76	400	209.41398	0	48162.868	482.73003					76,098,149	326,190	-	75,020,043	751,916	0.005927	2,288,451	44%
85	85	2016	0.96	0	2961.34	0	296563	189.46	16600	74.85	0	111829.6	0.000642	1987 Hourl	2016	-4.76	400	10.230912	0	142.30334	71.794571					349,422	15,936	-	221,656	111,830	0.009822	2,394,229	45%
86	86	2016	3.52	0	3943.81	0	296560.25	267.46	16600	127.94	0	151592.3	0.002618	1987 Hourl	2016	-3.05	400	152.974976	0	1320.967	396.86859					714,595	58,432	-	504,571	151,592	0.009822	2,610,095	46%
87	87	2016	3.37	0	6252.68	0	296563.81	441.93	16600	297	0	213862.5	0.006532	1987 Hourl	2016	-1.53	400	365.413144	0	12130.224	1396.9497					2,126,850	55,942	-	1,857,046	213,862	0	2,709,568	47%
88	88	2016	6.07	0	9644.05	0	296563.81	805.77	16600	509.19	0	312655.2	0.008986	1987 Hourl	2016	0	400	905.447332	0	44127.135	2809.5199					5,324,071	100,762	-	4,910,654	312,655	0.00763	2,832,300	48%
89	89	2016	10.52	0	13684.74	0	296562.59	1472.08	16600	801.56	0	422945.7	0.006532	1987 Hourl	2016	1.53	400	1140.696224	0	71650.424	2762.6816					11,566,718	174,632	-	10,969,140	422,946	0.00763	2,891,895	48%
90	90	2016	24.41	0	17147.94	0	296561.34	2494.81	16600	1170.62	0	525645.9	0.002618	1987 Hourl	2016	3.05	400	1060.829308	0	52553.003	1376.141					21,004,573	405,206	-	20,073,722	525,646	0.005927	3,013,445	49%
91	91	2016	70.82	0	23787.44	0	296562.34	5292.04	16600	2075.01	0	715756.6	0.000642	1987 Hourl	2016	4.76	400	754.742904	0	31688.591	459.51576					51,250,545	1,175,612	-	49,359,176	715,757	0.00763	3,057,140	50%
92	92	2016	12.61	0	8052.09	0	296984.41	495.34	16600	112.23	0	212236.7	0.000642	1988 Hourl	2016	-4.76	400	134.387292	0	580.16645	136.25595					1,325,249	209,326	-	903,686	212,237	0.009822	3,223,276	51%
93	93	2016	14.33	0	12185.53	0	296981.81	745.05	16600	195.48	0	301414	0.002618	1988 Hourl	2016	-3.05	400	622.764604	0	6236.1477	789.10185					2,921,319	237,878	-	2,382,027	301,414	0.00763	3,234,497	51%
94	94	2016	59.52	0	19330.78	0	296980.72	1293.69	16600	498.59	0	433945.2	0.006532	1988 Hourl	2016	-1.53	400	6453.825024	0	62956.289	2834.5299					11,060,111	988,032	-	9,638,134	433,945	0.005927	3,264,759	52%
95	95	2016	67.75	0	25047.64	0	296983.78	2174.05	16600	747.25	0	547953	0.008986	1988 Hourl	2016	0	400	10106.1049	0	168189.61	4923.9057					20,389,452	1,124,650	-	18,716,849	547,953	0.00763	3,268,825	53%
96	96	2016	134.15	0	31567.45	0	296983.59	3743.19	16600	1045.95	0	697806.6	0.006532	1988 Hourl	2016	1.53	400	14546.04548	0	215673.41	4558.0727					35,942,671	2,226,890	-	33,017,974	697,807	0.00763	3,365,707	54%
97	97	2016	521.28	0	41932.38	0	296982.91	7172.14	16600	2078.55	0	889209.1	0.002618	1988 Hourl	2016	3.05	400	22654.20326	0	228181.08	2327.9495					96,701,006	8,653,248	-	87,158,548	889,209	0.001909	3,432,613	54%
98	98	2016	1625.53	0	52300.61	0	296984.59	12649.75	16600	3196.14	0	1141069	0.000642	1988 Hourl	2016	4.76	400	17323.59832	0	107316.77	732.56621					195,284,939	26,983,798	-	167,160,072	1,141,069	0.002261	3,489,428	54%
99	99	2016	0	0	1261.8	0	295300.84	92.18	16600	43.97	0	64001.64	0.000642	1989 Hourl	2016	-4.76	400	0	0	35.619024	41.089053					119,483	-	-	55,481	64,002	0.00763	3,528,937	55%
100	100	2016	0.95	0	2168.55	0	295304.16	157.21	16600	111.69	0	99863.62	0.002618	1989 Hourl	2016	-3.05	400	41.28586	0	634.0936	261.44296					357,839	15,770	-	242,205	99,864	0.009822	3,552,061	56%
101	101	2016	0	0	3067.1	0	295302.44	219.81	16600	136.37	0	131789.2	0.006532	1989 Hourl	2016	-1.53	400	0	0	2732.0771	860.84732					550,050	-	-	418,260	131,789	0.00763	3,578,116	56%
102	102	2016	2.38	0	5090.75	0	295303.84	420.71	16600	288.15	0	203486.1	0.008986	1989 Hourl	2016	0	400	355.018888	0	13181.56	1828.526					1,709,894	39,508	-	1,466,900	203,486	0.001909	3,646,814	57%
103	103	2016	4.53	0	7412.96	0	295302.22	758.27	16600	713.29	0	277081.5	0.006532	1989 Hourl	2016	1.53	400	491.193336	0	34538.539	1809.8962					5,639,870	75,198	-	5,287,590	277,081	0.009822	3,754,432	58%
104	104	2016	5.64	0	10341.53	0	295303.94	1433.15	16600	867.39	0	387324.7	0.002618	1989 Hourl	2016	3.05	400	245.107632	0	23483.826	1014.0161					9,451,088	93,624	-	8,970,140	387,325	0.00763	3,756,621	58%
105	105	2016	25.36	0	14714.91	0	295301.22	3152.58	16600	1810.29	0	525622.4	0.000642	1989 Hourl	2016	4.76	400	270.266592	0	17101.759	337.44957					27,584,853	420,976	-	26,638,254	525,622	0.00763	3,904,486	59%
106	106	2016	1.37	0	2404.85	0	295302.88	151.94	16600	117.49	0	75807.53	0.000642	1990 Hourl	2016	-4.76	400	14.600364	0	181.39442	48.668434					381,095	22,742	-	282,546	75,808	0.00763	3,975,203	60%

107	107	2016	4.77	0	4277.3	0	295301.53	265.62	16600	235.09	0	112994.2	0.002618	1990 Hourl	2016	-3.05	400	207.298476	0	2632.5311	295.81882	1,197,727	79,182	-	1,005,550	112,994	0.009822	4,113,622	61%
108	108	2016	14.97	0	5837.66	0	295307.09	409.69	16600	357.91	0	149147.5	0.006532	1990 Hourl	2016	-1.53	400	1623.215064	0	13647.679	974.2314	2,487,006	248,502	-	2,089,357	149,147	0.009822	4,123,699	62%
109	109	2016	18.45	0	8580.12	0	295304.62	752.89	16600	704.63	0	209471.9	0.008986	1990 Hourl	2016	0	400	2752.14222	0	54327.648	1882.3144	6,561,552	306,270	-	6,045,810	209,472	0.00763	4,565,742	63%
110	110	2016	76.29	0	11331.85	0	295300.5	1425.1	16600	1126.43	0	274625	0.006532	1990 Hourl	2016	1.53	400	8272.216248	0	83377.948	1793.8503	14,305,575	1,266,414	-	12,764,536	274,625	0.00763	4,696,978	63%
111	111	2016	316.55	0	14333.74	0	295300.84	2583.46	16600	2018.9	0	335770.8	0.002618	1990 Hourl	2016	3.05	400	13756.88314	0	75760.699	879.04806	34,528,889	5,254,730	-	28,938,388	335,771	0.009822	4,859,050	64%
112	112	2016	947.5	0	17273.11	0	295302.69	4708.18	16600	2960.39	0	443838	0.000642	1990 Hourl	2016	4.76	400	10097.697	0	32828.761	284.94399	67,307,480	15,728,500	-	51,135,142	443,838	0.009822	5,150,674	65%
113	113	2016	0.3	0	4255.09	0	296218.81	249.89	16600	79.23	0	155717	0.000642	1991 Hourl	2016	-4.76	400	3.19716	0	216.43796	99.970282	497,828	4,980	-	337,131	155,717	0.002261	5,173,832	66%
114	114	2016	2.62	0	6663.45	0	296216.56	407.58	16600	171.07	0	224586.1	0.002618	1991 Hourl	2016	-3.05	400	113.862056	0	2984.3011	587.96631	1,407,994	43,492	-	1,139,916	224,586	0.009822	5,473,155	67%
115	115	2016	5.54	0	9519.16	0	296215.94	644.21	16600	341.57	0	298381.8	0.006532	1991 Hourl	2016	-1.53	400	600.708848	0	21238.533	1949.03	3,641,805	91,964	-	3,251,459	298,382	0.002261	6,147,739	67%
116	116	2016	14.25	0	13610.2	0	296215.34	1146.81	16600	691.25	0	394644.3	0.008986	1991 Hourl	2016	0	400	2125.6383	0	84540.744	3546.2737	10,039,245	236,550	-	9,408,051	394,644	0.00763	6,263,474	68%
117	117	2016	9.92	0	18110.55	0	296217.28	1944.37	16600	1121.32	0	508590.5	0.006532	1991 Hourl	2016	1.53	400	1075.637504	0	132650.04	3322.1133	20,980,984	164,672	-	20,307,722	508,591	0.009822	6,413,872	69%
118	118	2016	37.84	0	22416.98	0	296218.19	3310.17	16600	1574.25	0	636874.5	0.002618	1991 Hourl	2016	3.05	400	1644.480992	0	92389.039	1667.3373	36,554,949	628,144	-	35,289,931	636,874	0.00763	6,454,143	69%
119	119	2016	215.47	0	29829.59	0	296214.59	6378.45	16600	2786.78	0	841357.7	0.000642	1991 Hourl	2016	4.76	400	2296.306884	0	53368.5	540.15164	87,546,665	3,576,802	-	83,128,505	841,358	0.005927	6,902,335	70%
120	120	2016	0.21	0	862.25	0	295303.09	63.05	16600	36.51	0	43878.17	0.000642	1992 Hourl	2016	-4.76	400	2.238012	0	20.21064	28.169785	78,845	3,486	-	31,481	43,878	0.005927	6,991,229	70%
121	121	2016	1.96	0	1451.99	0	295306.19	100.83	16600	124.11	0	62577.29	0.002618	1992 Hourl	2016	-3.05	400	85.179248	0	471.78056	163.82735	275,320	32,536	-	180,206	62,577	0.002261	7,850,741	71%
122	122	2016	0.81	0	2089.2	0	295304.56	148.33	16600	182.36	0	88726.38	0.006532	1992 Hourl	2016	-1.53	400	87.829272	0	2488.6039	579.56071	483,159	13,446	-	380,987	88,726	0.009822	7,854,371	72%
123	123	2016	3.9	0	2824.27	0	295303.47	235.86	16600	354.99	0	117341.3	0.008986	1992 Hourl	2016	0	400	581.75364	0	9009.2522	1054.4287	1,184,669	64,740	-	1,002,588	117,341	0.002261	8,083,562	72%
124	124	2016	12.45	0	3775.93	0	295302.41	387.69	16600	633.53	0	153536.5	0.006532	1992 Hourl	2016	1.53	400	1349.96844	0	15625.621	1002.9004	2,752,371	206,670	-	2,392,165	153,537	0.00763	8,522,839	73%
125	125	2016	35.28	0	5674.61	0	295305	797.03	16600	921.58	0	221981.1	0.002618	1992 Hourl	2016	3.05	400	1533.226464	0	13691.111	581.14642	6,037,236	585,648	-	5,229,607	221,981	0.00763	8,624,841	73%
126	126	2016	192.35	0	7269.64	0	295302.5	1564.18	16600	1958.7	0	295549.7	0.000642	1992 Hourl	2016	4.76	400	2049.91242	0	9141.4662	189.74289	17,727,604	3,193,010	-	14,239,044	295,550	0.002261	8,818,763	74%
127	127	2016	0.63	0	3317.87	0	296391.94	212.53	16600	68.93	0	119681.3	0.000642	1993 Hourl	2016	-4.76	400	6.714036	0	146.8259	76.835407	358,840	10,458	-	228,701	119,681	0	9,220,511	74%
128	128	2016	4.06	0	5610.94	0	296389.09	360.09	16600	178.42	0	174381.2	0.002618	1993 Hourl	2016	-3.05	400	176.442728	0	2620.89	456.53006	1,242,881	67,396	-	1,001,104	174,381	0.000791	9,287,413	74%
129	129	2016	7.76	0	8380.52	0	296391.62	579.51	16600	316.54	0	253344.1	0.006532	1993 Hourl	2016	-1.53	400	841.426112	0	17327.892	1654.8439	3,034,930	128,816	-	2,652,770	253,344	0.002261	9,345,006	74%
130	130	2016	10.54	0	10474.61	0	296389.81	893.95	16600	446.96	0	314343.2	0.008986	1993 Hourl	2016	0	400	1572.226504	0	42070.041	2824.688	5,171,039	174,964	-	4,681,732	314,343	0.005927	9,410,587	75%
131	131	2016	24.32	0	15281.55	0	296387.91	1706.15	16600	871.89	0	442284.6	0.006532	1993 Hourl	2016	1.53	400	2637.046784	0	87031.262	2889.0031	14,169,827	403,712	-	13,323,831	442,285	0.009822	9,522,433	76%
132	132	2016	108.35	0	20582.93	0	296390.62	3159.36	16600	1561.71	0	585417.2	0.002618	1993 Hourl	2016	3.05	400	4708.76098	0	84154.478	1532.6223	34,528,595	1,798,610	-	32,144,568	585,417	0.002261	9,778,023	76%
133	133	2016	336.98	0	27421.71	0	296389.25	6433.09	16600	2417.2	0	795573	0.000642	1993 Hourl	2016	4.76	400	3591.263256	0	42554.172	510.75789	72,673,198	5,593,868	-	66,283,757	795,573	0.002261	9,997,658	76%
134	134	2016	0	0	2108.43	0	295753.44	135.22	16600	57.03	0	87407.43	0.000642	1994 Hourl	2016	-4.76	400	0	0	77.196496	56.11557	207,651	-	-	120,244	87,407	0.00763	10,299,765	77%
135	135	2016	0.51	0	3288.21	0	295759.53	217.09	16600	101.81	0	131080.3	0.002618	1994 Hourl	2016	-3.05	400	22.163988	0	876.43482	343.16828	474,319	8,466	-	334,773	131,080	0.002261	10,824,977	77%
136	136	2016	2.17	0	4727.07	0	295750.97	320.94	16600	178.32	0	182620	0.006532	1994 Hourl	2016	-1.53	400	235.295704	0	5506.0261	1192.8737	1,061,573	36,022	-	842,931	182,620	0.002261	10,997,853	77%
137	137	2016	7.17	0	7100.94	0	295755	578.54	16600	350.01	0	250191.4	0.008986	1994 Hourl	2016	0	400	1069.531692	0	22333.804	2248.2195	2,854,613	119,022	-	2,485,400	250,191	0.000791	11,124,375	78%
138	138	2016	23.24	0	10377.51	0	295756.94	1087.77	16600	665.76	0	340702.6	0.006532	1994 Hourl	2016	1.53	400	2519.941088	0	45129.138	2225.4691	7,635,418	385,784	-	6,908,931	340,703	0.00763	11,180,348	78%
139	139	2016	95.66	0	14670.24	0	295756.06	2143.55	16600	1003.93	0	471861	0.002618	1994 Hourl	2016	3.05	400	4157.268808	0	38557.627	1235.332	16,787,711	1,587,956	-	14,727,894	471,861	0.002261	11,218,390	79%
140	140	2016	379.46	0	19113.32	0	295755.47	4414.95	16600	1825.88	0	642711.4	0.000642	1994 Hourl	2016	4.76	400	4043.981112	0	22404.92	412.62069	41,840,376	6,299,036	-	34,898,629	642,711	0.00763	11,265,659	79%
141	141	2016	7.75	0	5964.26	0	295485.34	357.68	16600	125.3	0	221231	0.000642	1995 Hourl	2016	-4.76	400	82.5933	0	479.78058	142.03031	1,097,203	128,650	-	747,322	221,231	0.002261	11,520,780	80%
142	142	2016	5.5	0	9214.63	0	295483.91	552.85	16600	170.54	0	313136.7	0.002618	1995 Hourl	2016	-3.05	400	239.0234	0	4114.0901	819.79185	1,975,900	91,300	-	1,571,463	313,137	0.002261	11,582,576	80%
143	143	2016	17.17	0	12273.66	0	295481.44	822.34	16600	333.34	0	407072	0.006532	1995 Hourl	2016	-1.53	400	1861.763704	0	26724.384	2658.9945	4,783,396	285,022	-	4,091,302	407,072	0.000791	11,607,466	80%
144	144	2016	45.02	0	16895.44	0	295482.75	1500.82	16600	636.72	0	537677.2	0.008986	1995 Hourl	2016	0	400	6715.525352	0	96668.374	4831.5676	12,042,674	747,332	-	10,757,665	537,677	0.002261	12,062,807	80%
145	145	2016	130.89	0	22381.76	0	295482.44	2672.41	16600	1113.73	0	688367.3	0.006532	1995 Hourl	2016	1.53	400	14192.55977	0	162824.72	4496.4155	27,788,379	2,172,774	-	24,927,238	688,367	0.002261	12,134,537	80%
146	146	2016	384.53	0	29066.91	0	295484.03	4899.23	16600	1716.27	0	888557.9	0.002618	1995 Hourl	2016	3.05	400	16711.21236	0	130603.29	2326.2445	57,158,421	6,383,198	-	49,886,666	888,558	0.00763	12,739,977	81%
147	147	2016	1424.51	0	36308.59	0	295481.59	8841.48	16600	2822.76	0	1123660	0.000642	1995 Hourl	2016	4.76	400	15181.28797	0	65798.86	721.39001	127,260,962	23,646,866	-	102,490,436	1,123,660	0.00763	13,620,291	82%
148	148	2016	0	0	1468.28	0	295393.72	102.13	16600	45.41	0	73607.39	0.000642	1996 Hourl	2016	-4.76	400	0	0	42.80509	47.255944	140,282	-	-	66,675	73,607	0.009822	14,397,560	83%
149	149	2016	0.94	0	2475.61	0	295391.88	172.04	16600	128.34	0	106449.6	0.002618	1996 Hourl	2016	-3.05	400	40.851272	0	831.7904	278.68505	439,773	15,604	-	317,720	106,450	0.002261	14,734,989	83%
150	150	2016	0.72	0	3814.18	0	295390.94	270.75	16600	206.8	0	153683	0.006532	1996 Hourl	2016	-1.53	400	78.070464	0	5152.2615	1003.8576	954,407	11,952	-	788,772	153,683	0.000791	15,153,102	83%
151	151	2016	1.21	0	5325.59	0	295389.16	443.01	16600	324.67	0	211968.5	0.008986	1996 Hourl	2016	0	400	180.492796	0	15537.327	1904.7488	1,961,114	20,086	-	1,729,059	211,968	0.00763	15,616,347	84%
152	152	2016	4.61	0	7702.77	0	295389.97	793.88	16600	668.25	0	283974.4	0.006532	1996 Hourl	2016	1.53	400	499.867832	0	33622.66	1854.9205	5,507,876	76,526	-	5,147,376	283,974	0.002261	15,728,874	84%
153	153	2016	8.51	0	10144.85	0	295388.22	1416.45	16600	931.24	0	378929.2	0.002618	1996 Hourl	2016	3.05	400	369.834388	0	24733.006	992.03672	9,967,485	141,266	-	9,447,290	378,929	0.00763	17,014,388	85%
154	154	2016	24.6	0	13915.07	0	295388.06	3016.8	16600	1753.67	0	509818.3	0.000642	1996 Hourl	2016	4.76	400	262.16712	0	15666.367	327.30332	25,320,619	408,360	-	24,402,441	509,818	0.00763	17,668,181	86%
155	155	2016	0	0	3005.67	0	296243.53	176.88	16600	98.39	0	119880.3	0.000642	1997 Hourl	2016	-4.76	400	0	0	189.85729	76.96314	415,608	-	-	295,728	119,880	0.00763	17,764,449	86%
156	156	2016	2.55	0	4143.83	0	296242.19	270.72	16600	188.4	0	159378.3	0.002618	1997 Hourl	2016	-3.05	400	110.81994	0	2043.8662	417.25231	982,406	42,330	-	780,698	159,378	0.002261	17,846,647	87%
157	157	2016	7.68	0	6420.38	0	296243.31	443.98	16600	271.87	0	232333.2	0.006532	1997 Hourl	2016	-1.53	400	832.751616	0	11401.663	1517.6001	2,105,330	127,488	-	1,745,509	232,333	0.000791	18,612,539	87%
158	158	2016	7.74	0	9398.66	0	296245.03	774.8	16600	617.99	0	313099.5	0.008986	1997 Hourl	2016	0	400	1154.557224	0	52193.185	2813.5121	6,249,861	128,484	-	5,808,278	313,100	0.000791	18,752,810	87%
159	159	2016	14.35	0	12341.15	0	296240.03	1331.01	16600	890.93	0	399315.8	0.006532	1997 Hourl	2016	1.53	400	1555.98772	0	71819.998	2608.3308	11,632,627	238,210	-	10,995,101	399,316	0.009822	18,793,939	88%
160	160	2016	37.63	0	17117.51	0	296245.62	2478.47	16600	1472.31	0	528619	0.002618	1997 Hourl	2016	3.05	400	1635.354644	0	65979.572	1383.9244	26,355,558	624,658	-	25,202,281	528,619	0	19,146,493	88%
161	161	2016	134.8	0	21907.43	0	296242.72	4801.54	16600	2473.08	0	690695.8	0.000642	1997 Hourl	2016	4.76	400	1436.59056	0	34782.807	443.42668	57,107,203	2,237,680	-	54,178,827	690,696	0.000791	19,755,762	88%
162	162	2016	0.66	0	1762.93	0	296283.31	120.47	16600	65.06	0	80038.85	0.000642	1998 Hourl	2016	-4.76	400	7.033752	0	73.634977	51.384942	205,691	10,956	-	114,696	80,039	0.000791	19,858,013	88%
163	163	2016	0.48	0	2843.92	0	296279.28	191.4	16600	120.36	0	124547.1	0.002618	1998 Hourl	2016	-3.05	400	20.860224	0	896.12624	326.06441	474,809	7,968	-	342,294	124,547	0.000231	20,573,963	88%
164	164	2016	0.68	0	3907.7	0	296280.16	284.08	16600	197.71	0	166487.7	0.006532	1998 Hourl	2016	-1.53	400	73.733216	0	5046.5668	1087.4975	950,367	11,288	-	772,591	166,488	0.000791	20,915,671	88%
165	165	2016	2.36	0	5835.7	0	296280.56	484.23	16600	383.68	0	233280.8	0.008986	1998 Hourl	2016	0	400	352.035536	0	20120.026	2096.2613	2,511,498	39,176	-	2,239,041	233,281	0.000791	21,853,749	88%
166	166	2016	3.76	0	8360.99	0	296281.56	872.03	16600	608.38	0	318720.9	0.006532	1998 Hourl	2016	1.53	400	407.701312	0	33226.057	2081.8848	5,467,796	62,416	-	5,086,659	318,721	0.000791	22,265,758	88%
167	167	2016	10.66	0	12204.86	0	296281.72	1760.42	16600	1204.56	0	441549	0.002618	1998 Hourl	2016	3.05	400	463.270808	0	38488.491	1155.9752	15,319,991	176,956	-	14,701,486	441,549	0.000791	22,319,082	88%
168	168	2016	18.18	0	15665.29	0	296281.88	3459.95	16600	1798.09	0	579798	0.000642	1998 Hourl	2016	4.76	400	193.747896	0	18083.6	372.23031	29,049,187	301,788	-	28,167,601	579,798	0.002261	22,668,364	89%
169	169	2016	14.53	0	9371.64	0	295301.84	518.37	16600	191.57	0	209430.3	0.000642	1999 Hourl	2016	-4.76	400	154.849116	0	1152.5987	134.45424	2,245,953	241,198	-	1,795,325	209,430	0.000791	22,865,686	89%
170	170	2016	42.29	0	13251.7	0	295300.88	838.05	16600	333.7	0	285846	0.002618	1999 Hourl	2016	-3.05	400	1837.872652	0	11577.038	748.34483	5,409,952	702,014	-	4,422,092	285,846	0.000791	23,328,657	89%
171	171	2016	142.33	0	18146.23	0	295300.56	1366.28	16600	528.15	0	385149.9	0.006532	1999 Hourl	2016	-1.53	400	15433.0127	0	62602.24	2515.7988	12,331,759	2,362,678	-	9,583,931	385,150	0.002261	24,313,451	89%
172	172	2016	459.07	0	22832.09	0	295301	2589.76	16600	903.66	0	493264.9	0.008986	1999 Hourl	2016	0	400	68478.37013	0	185403.16	4432.4784	28,746,273	7,620,562	-	20,632,446	493,265	0.000791	24,569,487	89%
173	173	2016	1198.17	0	28626.44	0	295302.53	4641.73	16600	1395.54	0	634282.2	0.006532	1999 Hourl	2016	1.53	400	129919.0109	0	260949.1	4143.1312	60,473,246	19,889,622	-	39,949,342	634,282	0.000231	24,867,932	89%
174	174	2016	3686.76	0	32339.85	0	295301.44	7363.15	16600	2019.61	0	779252.9	0.002618	1999 Hourl	2016	3.05	400	160222.1655	0	170991.75	2040.084	127,293,353	61,200,216	-	65,313,884	779,253	0.009822	25,753,023	90%
175	175	2016	9653.94	0	36610.59	0	295302.94	11939.35	16600	2925.02	0	989755.8	0.000642	1999 Hourl	2016	4.76	400	102883.9694	0	68749.667	635.42322	268,331,868	160,255,404	-	107,086,708	989,756	0.000791	26,970,536	90%
176	176	2016	0.09	0	1400.18	0	295650.09	90.59	16600	64.53	0	65954.98	0.000642	2000 Hourl	2016	-4.76	400	0.959148	0	58.007021	42.343097	157,803	1,494	-	90,354	65,955	0.00763	27,680,292	91%
177	177	2016	0.72	0	2202.73	0	295649.75	145.24	16600	96.8	0	101706.1	0.002618	2000 Hourl	2016	-3.05	400	31.290336	0	558.22112	266.26654	326,882	11,952	-	213,224	101,706	0.002261	28,914,902	91%
178	178	2016	0	0	2902.51	0	295652.41	202.28	16600	159.22	0	138260	0.006532	2000 Hourl	2016	-1.53	400	0	0	3018.6831	903.11445	600,398	-	-	462,138	138,260	0.000231	29,600,278	91%
179	179	2016	1.81	0	3715.06	0	295648.44	301.16	16600	323.94	0	176518.1	0.008986	2000 Hourl	2016	0	400	269.993356	0	10814.26	1586.1917	1,410,021	30,046	-	1,203,457	176,518	0.000231	30,866,925	91%
180	180	2016	9.15	0	6046.55	0	295652.44	601.31	16600	724.73	0	255027.4	0.006532	2000 Hourl	2016	1.53	400	992.14548	0	28623.983	1665.8389	4,789,034	151,890	-	4,382,116	255,027	0.000791	31,230,915	91%
181	181	2016	30.17	0	8513	0	295654.41	1174.73	16600	975.66	0	354341.4	0.002618	2000 Hourl	2016	3.05	400	1311.151996	0	21744.568	927.66571	9,160,957	500,822	-	8,305,794	354,341	0.002261	31,864,767	91%
182	182	2016	91.47	0	12811.28	0	295655.28	2583.59	16600	2043.53	0	497547.2	0.000642	2000 Hourl	2016	4.76	400	974.814084	0	16807.711	319.42532	28,196,184	1,518,402	-	26,180,235	497,547	0.002261	34,588,713	92%
183	183	2016	0	0	2088.57	0	296597.41	137.09	16600	42.77	0	70742.39	0.000642	2001 Hourl	2016	-4.76	400	0	0	57.348665	45.416614	160,071	-	-	89,328	70,742	0.002261	36,612,399	92%
184	184	2016	0.73	0	3129.37	0	296600.09	216.93	16600	95.44	0	106500.5	0.002618	2001 Hourl	2016	-3.05	400	31.724924	0	781.9104	278.81828	417,286	12,118	-	298,667	106,500	0	36,704,586	92%
185	185	2016	1.79	0	4271.63	0	296598.09	305.09	16600	195.64	0	139991.3	0.006532	2001 Hourl	2016	-1.53	400	194.091848	0	5458.8035	914.42317	1,005,407	29,714	-	835,702	139,991	0.00763	38,117,882	93%
186	186	2016	3.15	0	6590.24	0	296599.59	532.86	16600	372.18	0	209693.8	0.008986	2001 Hourl	2016	0	400	469.87794	0	22040.461	1884.3085	2,714,739	52,290	-	2,452,756	209,694	0.009822	38,296,323	94%
187	187	2016	3.17	0	9086.78	0	296598.84	937.96	16600	570.13	0	286756	0.006532	2001 Hourl	2016	1.53	400	343.726904	0	33839.979	1873.0905	5,520,024	52,622	-	5,180,646	286,756	0.000791	38,783,695	94%
188	188	2016	13.45	0	11954.91	0	296596.84	1734.19	16600	1141.98	0	370668	0.002618	2001 Hourl	2016	3.05	400	584.52086	0	35741.638	970.40875	14,246,206	223,270	-	13,652,268	370,668	0.000791	39,662,298	94%
189	189	2016	21.79	0	16109.45	0	296600.44	3571.6	16600	1672.47	0	518857.2	0.000642	2001 Hourl	2016	4.76	400	232.220388	0	17297.131	333.10633	27,823,143	361,714	-	26,942,572	518,857	0.000231	40,058,067	94%
190	190	2016	1.08	0	4528.23	0	295302.41	288.93	16600	61.08	0	154613.8	0.000642	2002 Hourl	2016	-4.76	400	11.509776	0	177.56711	99.262028	449,126	17,928	-	276,584	154,614	0.002261	41,863,011	94%
191	191	2016	5.38	0	7573.8	0	295300.69	477.64	16600	135.65	0	237671.2	0.002618	2002 Hourl	2016	-3.05	400	233.808344	0	2689.6965	622.22325	1,354,365	89,308	-	1,027,386	237,671	0.002261	42,644,487	94%
192	192	2016	14.96	0	11201.43	0	295303.84	772.86	16600	350.28	0	324628.5	0.006532	2002 Hourl	2016	-1.53	400	1622.130752	0	25629.196	2120.4732	4,496,601	248,336	-	3,923,637	324,628	0.002261	42,875,215	94%
193	193	2016	16.84	0	14807.86	0	295301.41	1268.24	16600	523.34	0	419065.7	0.008986	2002 Hourl	2016	0	400	2511.982384	0	69637.415	3765.7241	8,448,155	279,544	-	7,749,545	419,066	0.000791	44,000,475	95%
194	194	2016	39.64	0	21077.4	0	295302.59	2351.69	16600	962.62	0	576041.5	0.006532	2002 Hourl	2016	1.53	400	4298.212768	0	132531.19	3762.7029	21,523,592	658,024	-	20,289,527	576,041	0.000231	44,566,462	95%
195	195	2016	74.36	0	26934.31	0	295298.09	4186.42	16600	1470.44	0	743901.3	0.002618	2002 Hourl	2016	3.05	400	3231.596368	0	103686.64	1947.5337	41,583,564	1,234,376	-	39,605,287	743,901	0.000231	45,000,499	95%
196	196	2016	267.68	0	35573.9	0	295303.22	8335.28	16600	2489.09	0	971493.3	0.000642	2002 Hourl	2016	4.76	400	2852.719296	0	56846.942	623.69868	93,961,620	4,443,488	-	88,546,639	971,493	0.000231	45,505,605	95%
197	197	2016	0	0	1379.79	0	295949.62	96.01	16600	54.02	0	69655.26	0.000642	2003 Hourl	2016	-4.76	400	0	0	47.852276	44.718677	144,192	-	-	74,536	69,655	0.000231	46,070,552	95%
198	198	2016	0.06	0	2197.17	0	295949.38	154.08	16600	112.19	0	103606	0.002618	2003 Hourl	2016	-3.05	400	2.607528	0	645.33832	271.24051	351,103	996	-	246,501	103,606	0.000231	47,134,921	95%
199	199	2016	0.19	0	3150.99	0	295949	220.73	16600	161.89	0	144965	0.006532	2003 Hourl	2016	-1.53	400	20.601928	0	3332.0632	946.91164	658,233	3,154	-	510,114	144,965	0.000231	47,148,870	95%
200	200	2016	3.22	0	4927.97	0	295948.44	396.97	16600	458.99	0	204626	0.008986	2003 Hourl	2016	0	400	480.319672	0	20325.334	1838.7689	2,519,967	53,452	-	2,261,889	204,626	0.000231	49,409,158	95%
201	201	2016	13.96	0	7450.93	0	295952.03	776.45	16600	823.77	0	288245.6	0.006532	2003 Hourl	2016	1.53	400	1513.699552	0	40092.453	1882.82	6,657,834	231,736	-	6,137,853	288,246	0.000231	50,078,660	95%
202	202	2016	43.4	0	9591.18	0	295950.41	1366.03	16600	946.38	0	376586.1	0.002618	2003 Hourl	2016	3.05	400	1886.11192	0	23763.327	985.90238	10,173,927	720,440	-	9,076,901	376,586	0.000231	51,280,120	95%
203	203	2016	204.36	0	13014.33	0	295951	2891.61	16600	1658.87	0	506533.4	0.000642	2003 Hourl	2016	4.76	400	2177.905392	0	13860.19	325.19444	25,487,991	3,392,376	-	21,589,082	506,533	0.000791	51,389,364	95%
204	204	2016	0	0	716.8	0	295298.84	50.27	16600	61.54	0	41176.11	0.000642	2004 Hourl	2016	-4.76	400	0	0	28.319822	26.435063	85,288	-	-	44,112	41,176	0.000791	53,013,042	95%
205	205	2016	0.43	0	1018.51	0	295301.16	72.19	16600	82.01	0	58460.11	0.002618	2004 Hourl	2016	-3.05	400	18.687284	0	218.67632	153.04857	149,126	7,138	-	83,528	58,460	0.00763	55,415,281	96%
206	206	2016	0	0	1679.47	0	295301.56	119.35	16600	239.54	0	85232.07	0.006532	2004 Hourl	2016	-1.53	400	0	0	2627.8252	556.73588	487,532	-	-	402,300	85,232	0.002261	56,543,329	96%
207	207	2016	0.36	0	1962.64	0	295300.81	166.13	16600	233.93	0	110533.5	0.008986	2004 Hourl	2016	0	400	53.700336	0	4125.6557	993.25412	575,630	5,976	-	459,120	110,534	0.000231	59,736,769	96%
208	208	2016	4.21	0	3182.95	0	295302.09	327.11	16600	487.85	0	159171.4	0.006532	2004 Hourl	2016	1.53	400	456.495352	0	10142.904	1039.7076	1,781,860	69,886	-	1,552,802	159,171	0.002261	64,013,974	96%
209	209	2016	33.91	0	4489.99	0	295303.09	626.04	16600	873.6	0	215601.7	0.002618	2004 Hourl	2016	3.05	400	1473.687908	0	10268.988	564.44522	4,700,963	562,906	-	3,922,455	215,602	0.000231	66,159,715	96%
210	210	2016	98.67	0	6438.19	0	295298.41	1377.55	16600	1519.78	0	305185.1	0.000642	2004 Hourl	2016	4.76	400	1051.545924	0	6281.734	195.92882	11,727,739	1,637,922	-	9,784,632	305,185	0.000791	66,479,463	96%
211	211	2016	2.12	0	4825.76	0	296224.16	296.15	16600	88.73	0	142466.3	0.000642	2005 Hourl	2016	-4.76	400	22.593264	0	274.89778	91.463365	605,848	35,192	-	428,190	142,466	0.000791	69,601,861	96.36%
212	212	2016	4.69	0	7449.07	0	296225.94	476.65	16600	160.88	0	210098.4	0.002618	2005 Hourl	2016	-3.05	400	203.821772	0	3137.4279	550.03756	1,486,359	77,854	-	1,198,406	210,098	0.000791	72,476,215	96%

213	213	2016	11.62	0	11145.07	0	296222.81	772.57	16600	355.18	0	296544.8	0.006532	2005 Hourl	2016	-1.53	400	1259.970544	0	25856.961	1937.0304	4,447,943	192,892	-	3,958,506	296,545	0.000791	74,850,034	97%
214	214	2016	33.02	0	14065.72	0	296223.88	1248.8	16600	721.32	0	368990.4	0.008986	2005 Hourl	2016	0	400	4925.514152	0	91170.924	3315.7481	11,063,008	548,132	-	10,145,885	368,990	0.00763	80,012,911	97%
215	215	2016	79.73	0	19445.35	0	296225.97	2297.15	16600	1010.76	0	504562.3	0.006532	2005 Hourl	2016	1.53	400	8645.219576	0	128383.73	3295.8012	21,482,662	1,323,518	-	19,654,582	504,562	0.000231	82,816,443	97%
216	216	2016	270.89	0	24651.02	0	296224.62	3998.95	16600	1542.48	0	651675.2	0.002618	2005 Hourl	2016	3.05	400	11772.55433	0	99546.061	1706.0856	43,172,155	4,496,774	-	38,023,705	651,675	0.000231	83,386,052	97%
217	217	2016	771.1	0	32158.12	0	296229.88	7690.42	16600	2399.49	0	863422.1	0.000642	2005 Hourl	2016	4.76	400	8217.76692	0	49538.702	554.31701	90,826,769	12,800,260	-	77,163,087	863,422	0.000231	84,580,030	97%
218	218	2016	4.64	0	4007.26	0	295578.34	246.06	16600	101.69	0	131318.1	0.000642	2006 Hourl	2016	-4.76	400	49.449408	0	261.61389	84.306246	615,840	77,024	-	407,498	131,318	0.002261	86,136,410	98%
219	219	2016	4.54	0	5937.7	0	295581.88	379.12	16600	157.98	0	185979.5	0.002618	2006 Hourl	2016	-3.05	400	197.302952	0	2455.7831	486.89423	1,199,381	75,364	-	938,038	185,979	0.000791	87,404,959	98%
220	220	2016	12.09	0	8843.61	0	295578.91	611.3	16600	332.14	0	258658.9	0.006532	2006 Hourl	2016	-1.53	400	1310.933208	0	19186.552	1689.5601	3,396,670	200,694	-	2,937,317	258,659	0.000791	94,903,913	98%
221	221	2016	3.29	0	12357.58	0	295584.69	1008.4	16600	462.21	0	343302.2	0.008986	2006 Hourl	2016	0	400	490.761404	0	51326.208	3084.9134	6,109,713	54,614	-	5,711,797	343,302	0.000231	102,593,038	98%
222	222	2016	25.17	0	16264.73	0	295581.22	1839.83	16600	1003.95	0	440798.3	0.006532	2006 Hourl	2016	1.53	400	2729.213304	0	106660.87	2879.2942	17,187,596	417,822	-	16,328,976	440,798	0.000791	106,524,641	98%
223	223	2016	86.27	0	21908.76	0	295579.44	3474.61	16600	1527.8	0	575095.9	0.002618	2006 Hourl	2016	3.05	400	3749.190676	0	87630.229	1505.6012	35,479,381	1,432,082	-	33,472,204	575,096	0.000231	121,935,940	98%
224	224	2016	274.85	0	27502.3	0	295582.5	6518.92	16600	2460.82	0	750006	0.000642	2006 Hourl	2016	4.76	400	2929.13142	0	43449.411	481.50386	72,990,726	4,562,510	-	67,678,210	750,006	0.000791	125,888,947	98%
225	225	2016	20.52	0	11240.37	0	296275.09	649.47	16600	135.31	0	273267.2	0.000642	2007 Hourl	2016	-4.76	400	218.685744	0	976.43993	175.43754	2,134,834	340,632	-	1,520,934	273,267	0.000231	130,237,313	98%
226	226	2016	25.6	0	16067.38	0	296277.94	938.78	16600	238.89	0	388372.2	0.002618	2007 Hourl	2016	-3.05	400	1112.54528	0	10048.765	1016.7584	4,651,669	424,960	-	3,838,336	388,372	0.000231	139,968,755	98%
227	227	2016	44.29	0	21059.22	0	296272.75	1435.17	16600	414.43	0	487043.3	0.006532	2007 Hourl	2016	-1.53	400	4802.417848	0	57008.504	3181.367	9,949,830	735,214	-	8,727,573	487,043	0.002261	147,815,529	98%
228	228	2016	217.28	0	28149.47	0	296274.5	2681.18	16600	690.57	0	637687	0.008986	2007 Hourl	2016	0	400	32411.13613	0	174680.47	5730.2554	23,683,714	3,606,848	-	19,439,179	637,687	0.000231	154,247,304	98%
229	229	2016	516.39	0	35950.53	0	296277.06	4894.93	16600	1216.79	0	800516.9	0.006532	2007 Hourl	2016	1.53	400	55992.78737	0	285737.41	5228.9764	53,116,836	8,572,074	-	43,744,245	800,517	0.00763	155,722,251	99%
230	230	2016	1598.05	0	43066.46	0	296275.19	8492.36	16600	1836.42	0	988982.9	0.002618	2007 Hourl	2016	3.05	400	69449.33534	0	207052.67	2589.1571	106,604,721	26,527,630	-	79,088,108	988,983	0.000231	158,150,340	99%
231	231	2016	6418.75	0	51129.62	0	296277.22	14268.56	16600	3062.76	0	1256647	0.000642	2007 Hourl	2016	4.76	400	68405.9025	0	100535.76	806.7674	264,405,652	106,551,250	-	156,597,755	1,256,647	0.000231	161,648,101	99%
232	232	2016	0.09	0	2079.66	0	295693.59	137.17	16600	242.17	0	86466.94	0.000642	2008 Hourl	2016	-4.76	400	0.959148	0	323.33127	55.511775	591,592	1,494	-	503,631	86,467	0.000231	170,249,134	99%
233	233	2016	0.36	0	3252.44	0	295695.97	220.23	16600	123.66	0	135407.4	0.002618	2008 Hourl	2016	-3.05	400	15.645168	0	1052.951	354.49668	543,580	5,976	-	402,197	135,407	0.000791	175,901,514	99%
234	234	2016	3.15	0	4437.81	0	295693.22	312.49	16600	163.27	0	180308	0.006532	2008 Hourl	2016	-1.53	400	341.55828	0	4732.834	1177.772	957,159	52,290	-	724,561	180,308	0.002261	185,363,300	99%
235	235	2016	2.27	0	7086.9	0	295695.03	602.5	16600	562.93	0	258207.1	0.008986	2008 Hourl	2016	0	400	338.610452	0	35849.006	2320.2492	4,285,318	37,682	-	3,989,429	258,207	0.000231	192,067,400	99%
236	236	2016	5.13	0	9157.04	0	295697.31	922.48	16600	573.2	0	341551.2	0.006532	2008 Hourl	2016	1.53	400	556.252056	0	34285.262	2231.0122	5,675,524	85,158	-	5,248,815	341,551	0.000231	195,659,241	99%
237	237	2016	9.01	0	12826.99	0	295695.03	1786.71	16600	1119.31	0	452624.1	0.002618	2008 Hourl	2016	3.05	400	391.563788	0	37587.616	1184.9698	14,959,568	149,566	-	14,357,378	452,624	0.000231	234,530,821	99%
238	238	2016	19.75	0	16584.09	0	295694.94	3588.73	16600	1751.83	0	600957.1	0.000642	2008 Hourl	2016	4.76	400	210.4797	0	18651.709	385.81446	29,981,313	327,850	-	29,052,506	600,957	0.000791	258,718,189	100%
239	239	2016	0	0	918.26	0	296140.22	61.79	16600	89.04	0	46584.31	0.000642	2009 Hourl	2016	-4.76	400	0	0	52.491121	29.907127	128,346	-	-	81,762	46,584	0.000791	275,141,595	100%
240	240	2016	0.82	0	1573.16	0	296141.34	110.64	16600	155.84	0	69176.27	0.002618	2009 Hourl	2016	-3.05	400	35.636216	0	641.83216	181.10347	327,950	13,612	-	245,161	69,176	0.002261	301,533,255	100%
241	241	2016	1.12	0	2729.2	0	296140	196.48	16600	196.24	0	110067.6	0.006532	2009 Hourl	2016	-1.53	400	121.442944	0	3498.3969	718.96169	664,238	18,592	-	535,578	110,068	0.000231	336,598,410	100%
242	242	2016	9.38	0	3556.21	0	296141.72	298.85	16600	327.64	0	144396.6	0.008986	2009 Hourl	2016	0	400	1399.192088	0	10470.098	1297.5481	1,465,261	155,708	-	1,165,157	144,397	0.000231	396,091,355	100%
243	243	2016	24.23	0	4766.65	0	296140.97	497.14	16600	491.47	0	199073.6	0.006532	2009 Hourl	2016	1.53	400	2627.287976	0	15302.291	1300.349	2,943,957	402,218	-	2,342,665	199,074	0.000791	401,885,261	100%
244	244	2016	72.65	0	6982.17	0	296143.66	1022.43	16600	1161.64	0	275173.8	0.002618	2009 Hourl	2016	3.05	400	3157.28182	0	21233.991	720.40498	9,591,932	1,205,990	-	8,110,768	275,174	0.000231	427,577,899	100%
245	245	2016	353.36	0	8911.31	0	296142.97	2099.21	16600	1500.72	0	376410.4	0.000642	2009 Hourl	2016	4.76	400	3765.828192	0	8585.7107	241.65548	19,615,568	5,865,776	-	13,373,381	376,410	0.000231	586,725,471	100%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations
1	1	2016	0	0	1213.5	0	295300.59	87.15	16600	38.73	0	75234.52	0.000642	1975 Hourl	2016	-4.76	400
2	2	2016	1.69	0	1945.66	0	295300.91	139.79	16600	122.59	0	113591.46	0.002618	1975 Hourl	2016	-3.05	400
3	3	2016	1.53	0	3290.51	0	295304.84	237.85	16600	206.61	0	166588.98	0.006532	1975 Hourl	2016	-1.53	400
4	4	2016	3.13	0	4555.17	0	295302.38	390.83	16600	403.89	0	217693.94	0.008986	1975 Hourl	2016	0	400
5	5	2016	0	0	6806.01	0	295297.47	700.65	16600	574.23	0	300678.18	0.006532	1975 Hourl	2016	1.53	400
6	6	2016	9.48	0	9311.05	0	295303.72	1319.69	16600	1022.55	0	405903.82	0.002618	1975 Hourl	2016	3.05	400
7	7	2016	20.37	0	13647.24	0	295299.59	2975.17	16600	1835.65	0	552063.35	0.000642	1975 Hourl	2016	4.76	400
8	8	2016	0	0	1397.36	0	296220.66	81.32	16600	104.44	0	99416.52	0.000642	1976 Hourl	2016	-4.76	400
9	9	2016	0	0	2104.05	0	296217.66	133.34	16600	183.18	0	152127.89	0.002618	1976 Hourl	2016	-3.05	400
10	10	2016	0.63	0	2640.68	0	296223.19	183.74	16600	195.66	0	190808.46	0.006532	1976 Hourl	2016	-1.53	400
11	11	2016	0	0	3520.04	0	296220.44	280.77	16600	361.92	0	242126.51	0.008986	1976 Hourl	2016	0	400
12	12	2016	1.93	0	5618.95	0	296215.75	563.65	16600	847.15	0	325387.61	0.006532	1976 Hourl	2016	1.53	400
13	13	2016	5.08	0	7755.26	0	296018.47	1072.13	16600	1152.94	0	420321.14	0.002618	1976 Hourl	2016	3.05	400
14	14	2016	20.31	0	10146.58	0	296216.97	2081.89	16600	1918.17	0	544777.43	0.000642	1976 Hourl	2016	4.76	400
15	15	2016	1.19	0	2537.41	0	295305.47	164.38	16600	53.47	0	168958.01	0.000642	1977 Hourl	2016	-4.76	400
16	16	2016	4.75	0	4607.13	0	295302.84	305.89	16600	160.1	0	256242.67	0.002618	1977 Hourl	2016	-3.05	400
17	17	2016	6.1	0	6097.65	0	295302.88	430.32	16600	213.09	0	339001.56	0.006532	1977 Hourl	2016	-1.53	400
18	18	2016	23.77	0	9709.16	0	295303.72	813.86	16600	408.44	0	481278.82	0.008986	1977 Hourl	2016	0	400
19	19	2016	107.79	0	13736.41	0	295301.09	1564.17	16600	805.34	0	635174.36	0.006532	1977 Hourl	2016	1.53	400
20	20	2016	417.64	0	18623.18	0	295302.03	3024.85	16600	1232.4	0	838644.66	0.002618	1977 Hourl	2016	3.05	400
21	21	2016	1847.61	0	23306.51	0	295300.09	6178.76	16600	1885.27	0	1108236	0.000642	1977 Hourl	2016	4.76	400
22	22	2016	0.91	0	1424.39	0	295303.28	92	16600	78.56	0	95966.95	0.000642	1978 Hourl	2016	-4.76	400
23	23	2016	0.68	0	2114.63	0	295304.81	141.02	16600	142.15	0	140804.49	0.002618	1978 Hourl	2016	-3.05	400
24	24	2016	4.25	0	3321.41	0	295297.44	239.11	16600	297.86	0	194519.78	0.006532	1978 Hourl	2016	-1.53	400
25	25	2016	3.48	0	4875.88	0	295305.03	424.74	16600	480.52	0	275772.58	0.008986	1978 Hourl	2016	0	400
26	26	2016	37.84	0	6547.19	0	295301.81	719.06	16600	892.76	0	360024.05	0.006532	1978 Hourl	2016	1.53	400
27	27	2016	112.85	0	9203.22	0	295299.69	1411.04	16600	1329.95	0	491241.69	0.002618	1978 Hourl	2016	3.05	400
28	28	2016	376.07	0	12801.5	0	295305.53	3048.1	16600	2091.18	0	669420.78	0.000642	1978 Hourl	2016	4.76	400
29	29	2016	0.22	0	900.6	0	295929.81	63.04	16600	113.75	0	84757.59	0.000642	1979 Hourl	2016	-4.76	400
30	30	2016	0.48	0	1550.07	0	295927.66	108.41	16600	164.1	0	121157.86	0.002618	1979 Hourl	2016	-3.05	400
31	31	2016	2.27	0	2260.8	0	295927.38	161.75	16600	195.32	0	171433.82	0.006532	1979 Hourl	2016	-1.53	400
32	32	2016	0.18	0	3211.44	0	295929.91	259.67	16600	298.08	0	222341.58	0.008986	1979 Hourl	2016	0	400
33	33	2016	0.14	0	4636.42	0	295932.41	468.65	16600	638.92	0	297341.73	0.006532	1979 Hourl	2016	1.53	400
34	34	2016	8.09	0	6995.4	0	295930.09	988.35	16600	1206.51	0	416135.29	0.002618	1979 Hourl	2016	3.05	400
35	35	2016	23.73	0	9795.97	0	295931.56	2058.24	16600	2024.34	0	567888.37	0.000642	1979 Hourl	2016	4.76	400
36	36	2016	9.1	0	3501.31	0	295479.31	226.22	16600	188.6	0	161691.41	0.000642	1980 Hourl	2016	-4.76	400
37	37	2016	1.81	0	5566.91	0	295482.19	359.28	16600	129.72	0	242273.57	0.002618	1980 Hourl	2016	-3.05	400
38	38	2016	9.73	0	8958.7	0	295480.69	618.2	16600	298.46	0	337469.43	0.006532	1980 Hourl	2016	-1.53	400
39	39	2016	19.84	0	12227.56	0	295483.25	1057.96	16600	547.68	0	450174.06	0.008986	1980 Hourl	2016	0	400
40	40	2016	87.33	0	16150.95	0	295480.59	1944.09	16600	1141.89	0	567180.98	0.006532	1980 Hourl	2016	1.53	400
41	41	2016	187.34	0	21205.73	0	295482.44	3558.34	16600	1592.64	0	739125	0.002618	1980 Hourl	2016	3.05	400
42	42	2016	657.83	0	27954.92	0	295482.25	7001.63	16600	2338.46	0	995717.66	0.000642	1980 Hourl	2016	4.76	400
43	43	2016	0	0	782.28	0	296013.88	53.99	16600	64.49	0	59124.93	0.000642	1981 Hourl	2016	-4.76	400
44	44	2016	0.88	0	1323.05	0	296013.03	93.24	16600	110.85	0	87811.49	0.002618	1981 Hourl	2016	-3.05	400
45	45	2016	0.77	0	2193.51	0	296011.75	154.64	16600	169.38	0	132275.75	0.006532	1981 Hourl	2016	-1.53	400
46	46	2016	0.97	0	2867.55	0	296012.22	237.2	16600	339.73	0	174144.05	0.008986	1981 Hourl	2016	0	400
47	47	2016	15.39	0	4928.09	0	296013.44	514.92	16600	679.45	0	253806.75	0.006532	1981 Hourl	2016	1.53	400
48	48	2016	28.93	0	6414.87	0	296011.53	916.58	16600	836.74	0	335590.95	0.002618	1981 Hourl	2016	3.05	400
49	49	2016	100.55	0	9519.89	0	294904.69	2174.22	16600	1717.32	0	476921.73	0.000642	1981 Hourl	2016	4.76	400
50	50	2016	0	0	1195.88	0	296814.22	77.06	16600	48.42	0	87615.98	0.000642	1982 Hourl	2016	-4.76	400
51	51	2016	0	0	1649.23	0	296815.06	111.03	16600	90.22	0	122612.98	0.002618	1982 Hourl	2016	-3.05	400
52	52	2016	0	0	2484.76	0	296817.69	179.26	16600	171.74	0	166793.04	0.006532	1982 Hourl	2016	-1.53	400
53	53	2016	1.27	0	3542.58	0	296814.75	285.22	16600	363.28	0	230486.66	0.008986	1982 Hourl	2016	0	400
54	54	2016	8.86	0	5166.75	0	296813.97	511.26	16600	526.28	0	310280.45	0.006532	1982 Hourl	2016	1.53	400
55	55	2016	79.45	0	6961.33	0	296813.78	975.4	16600	857.39	0	398342.77	0.002618	1982 Hourl	2016	3.05	400
56	56	2016	329.35	0	9846.36	0	296814.25	2337.09	16600	1562.8	0	536027.22	0.000642	1982 Hourl	2016	4.76	400
57	57	2016	35.91	0	10745.21	0	295752.91	610.27	16600	202.72	0	305526.16	0.000642	1983 Hourl	2016	-4.76	400
58	58	2016	46.38	0	14847.92	0	295759.59	924.39	16600	271.09	0	408573.37	0.002618	1983 Hourl	2016	-3.05	400
59	59	2016	163.43	0	20627.38	0	295760.69	1635.86	16600	426.72	0	543356.74	0.006532	1983 Hourl	2016	-1.53	400
60	60	2016	767.07	0	26584.24	0	295759.31	3426.27	16600	1088.29	0	681969.79	0.008986	1983 Hourl	2016	0	400
61	61	2016	1906.42	0	31806.13	0	295761.44	6121.18	16600	1599.67	0	859824.87	0.006532	1983 Hourl	2016	1.53	400
62	62	2016	6713.17	0	34563.47	0	295755.91	9577.4	16600	2258.3	0	1040769.8	0.002618	1983 Hourl	2016	3.05	400
63	63	2016	15251.21	0	35428.42	0	295757.06	13359.15	16600	2656.22	0	1300101.6	0.000642	1983 Hourl	2016	4.76	400
64	64	2016	0.79	0	1054.07	0	295299.5	74.32	16600	83.71	0	71657.54	0.000642	1984 Hourl	2016	-4.76	400
65	65	2016	0.41	0	1695.22	0	295300.22	118.94	16600	210.83	0	107668.08	0.002618	1984 Hourl	2016	-3.05	400
66	66	2016	2.48	0	2616.44	0	295300.97	176.57	16600	148.8	0	151739.28	0.006532	1984 Hourl	2016	-1.53	400
67	67	2016	2.23	0	3629.21	0	295302.31	299.91	16600	528.95	0	197752.94	0.008986	1984 Hourl	2016	0	400
68	68	2016	9.55	0	4794.8	0	295302.62	489.87	16600	596.6	0	262018.63	0.006532	1984 Hourl	2016	1.53	400
69	69	2016	35.47	0	6758.71	0	295299.34	944.53	16600	983.38	0	355356.31	0.002618	1984 Hourl	2016	3.05	400
70	70	2016	145.57	0	9255.52	0	295302.25	1939.9	16600	1867.54	0	476188.37	0.000642	1984 Hourl	2016	4.76	400
71	71	2016	0	0	656.21	0	295932.41	43.6	16600	54.53	0	46704.98	0.000642	1985 Hourl	2016	-4.76	400
72	72	2016	1.17	0	908.37	0	295931.59	67.71	16600	231.67	0	71222.2	0.002618	1985 Hourl	2016	-3.05	400
73	73	2016	3.9	0	1317.55	0	295931.62	105.7	16600	534.53	0	94939.75	0.006532	1985 Hourl	2016	-1.53	400
74	74	2016	2.38	0	2108.92	0	295930.34	181.38	16600	358.35	0	135692.71	0.008986	1985 Hourl	2016	0	400
75	75	2016	8.34	0	3057.39	0	295930.56	314.76	16600	792.78	0	198081.29	0.006532	1985 Hourl	2016	1.53	400
76	76	2016	8.23	0	4180.96	0	295929.53	558.3	16600	1188.72	0	263193.88	0.002618	1985 Hourl	2016	3.05	400
77	77	2016	5.88	0	6141.43	0	295930.25	1280.08	16600	1346.19	0	371616.46	0.000642	1985 Hourl	2016	4.76	400
78	78	2016	1.4	0	3038.18	0	295849.72	171.55	16600	103.08	0	133364.88	0.000642	1986 Hourl	2016	-4.76	400
79	79	2016	0.86	0	4137.13	0	295845.41	255.06	16600	309.86	0	185570.69	0.002618	1986 Hourl	2016	-3.05	400
80	80	2016	0	0	5837.56	0	295845.97	392.9	16600	425.49	0	248495.44	0.006532	1986 Hourl	2016	-1.53	400
81	81	2016	1.01	0	9197.18	0	295850.59	784.37	16600	1069.76	0	343672.99	0.008986	1986 Hourl	2016	0	400
82	82	2016	4.53	0	11758.14	0	295843.47	1242.2	16600	1380.72	0	432799.25	0.006532	1986 Hourl	2016	1.53	400
83	83	2016	13.52	0	14752.15	0	295843	2031.14	16600	1782.24	0	556735.8	0.002618	1986 Hourl	2016	3.05	400
84	84	2016	16.51	0	20002.41	0	295846.31	4066.19	16600	2700.37	0	739566.14	0.000642	1986 Hourl	2016	4.76	400
85	85	2016	0.06	0	2085.46	0	296563	133.67	16600	52.48	0	115710.86	0.000642	1987 Hourl	2016	-4.76	400
86	86	2016	1.25	0	3130.31	0	296560.25	203.28	16600	109.85	0	160687.09	0.002618	1987 Hourl	2016	-3.05	400
87	87	2016	6.54	0	5007.25	0	296563.81	363.84	16600	344.88	0	229111.63	0.006532	1987 Hourl	2016	-1.53	400
88	88	2016	10.12	0	6733.51	0	296563.81	573.11	16600	536.47	0	298994.88	0.008986	1987 Hourl	2016	0	400
89	89	2016	11.4	0	10173.97	0	296562.59	1058.84	16600	799.1	0	414113.23	0.006532	1987 Hourl	2016	1.53	400
90	90	2016	24.79	0	13613.72	0	296561.34	1996.31	16600	1191.78	0	547439.8	0.002618	1987 Hourl	2016	3.05	400
91	91	2016	55.86	0	17607.66	0	296562.34	3862.21	16600	2044.48	0	697003.49	0.000642	1987 Hourl	2016	4.76	400
92	92	2016	11.59	0	6063.09	0	296984.41	379.37	16600	253.08	0	211929.17	0.000642	1988 Hourl	2016	-4.76	400
93	93	2016	10.73	0	9281.73	0	296981.81	588.89	16600	236.85	0	301527.15	0.002618	1988 Hourl	2016	-3.05	400
94	94	2016	17.11	0	14399.87	0	296980.72	974.54	16600	316.53	0	419647.65	0.006532	1988 Hourl	2016	-1.53	400
95	95	2016	33.22	0	19882.84	0	296983.78	1718.27	16600	640.82	0	556850.96	0.008986	1988 Hourl	2016	0	400
96	96	2016	149.3	0	26763.21	0	296983.59	3273.63	16600	1229.79	0	706390.03	0.006532	1988 Hourl	2016	1.53	400
97	97	2016	437.16	0	34424.17	0	296982.91	5963.85	16600	1821.81	0	903355.53	0.002618	1988 Hourl	2016	3.05	400
98	98	2016	1298.53	0	43171.56	0	296984.59	10794.1	16600	2925.97	0	1149986	0.000642	1988 Hourl	2016	4.76	400
99	99	2016	0	0	728.08	0	295300.84	53.59	16600	43.88	0	61757.8	0.000642	1989 Hourl	2016	-4.76	400
100	100	2016	0.22	0	1708.07	0	295304.16	116.87	16600	174.73	0	106835.88	0.002618	1989 Hourl	2016	-3.05	400
101	101	2016	0.03	0	2361.72	0	295302.44	170.57	16600	192.22	0	144239.26	0.006532	1989 Hourl	2016	-1.53	400
102	102	2016	2.96	0	3909.23	0	295303.84	319.83	16600	385.64	0	206916.4	0.008986	1989 Hourl	2016	0	400
103	103	2016	4.67	0	5153.75	0	295302.22	531.09	16600	647.02	0	272177.5	0.006532	1989 Hourl	2016	1.53	400

No	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability			
1	0	0	30.173265	48.300562	**323**	**7,137**	**-**	**1,766**	122,233	-	-	46,999	75,235	0.001909	109,022	0	0.0559503
2	73.445372	0	624.44133	297.38244		879.01			380,164	28,054	-	238,518	113,591	0.005927	120,218	1%	0.3659702
3	165.899736	0	4440.795	1088.1592					871,839	25,398	-	679,852	166,589	0.009822	143,365	2%	1.5536362
4	466.894588	0	16532.331	1956.1977					2,109,440	51,958	-	1,839,788	217,694	0.00763	143,920	3%	3.5119984
5	0	0	25528.461	1964.0299					4,208,893	-	-	3,908,215	300,678	0.002261	188,646	3%	4.5766458
6	411.989424	0	24926.015	1062.6562					10,084,286	157,368	-	9,521,014	405,904	0.000791	197,708	3%	3.4549484
7	217.087164	0	16083.099	354.42467					25,941,761	338,142	-	25,051,556	552,063	0.000231	203,528	3%	1.9100591
8	0	0	93.693659	63.825406					245,357	-	-	145,940	99,417	0.001909	209,426	3%	0.0522074
9	0	0	1009.0292	398.27082					537,548	-	-	385,420	152,128	0.005927	214,991	4%	0.3490841
10	68.311656	0	3374.924	1246.3609					717,942	10,458	-	516,675	190,808	0.009822	224,473	5%	1.2001897
11	0	0	11447.92	2175.7488					1,516,099	-	-	1,273,973	242,127	0.00763	228,248	5%	2.5229992
12	209.272216	0	31092.931	2125.4319					5,117,519	32,038	-	4,760,093	325,388	0.002261	229,283	6%	3.6817618
13	220.770704	0	23408.453	1100.4007					9,445,999	84,328	-	8,941,349	420,321	0.000791	242,500	6%	2.8068363
14	216.447732	0	12495.16	349.74711					20,344,789	337,146	-	19,462,865	544,777	0.000231	250,277	6%	1.3365734
15	12.682068	0	87.103551	108.47104					324,387	19,754	-	135,675	168,958	0.001909	277,692	6%	0.105532
16	206.4293	0	1931.0408	670.84331					1,072,694	78,850	-	737,602	256,243	0.005927	291,005	6%	0.80082
17	661.43032	0	8487.3427	2214.3582					1,739,610	101,260	-	1,299,348	339,002	0.009822	353,134	7%	2.8108502
18	3545.713852	0	35634.965	4324.7715					4,841,470	394,582	-	3,965,609	481,279	0.00763	355,667	8%	7.313346
19	11687.79905	0	72260.122	4148.9589					13,486,969	1,789,314	-	11,062,480	635,174	0.002261	380,649	8%	10.217158
20	18150.13323	0	60086.26	2195.5717					30,722,676	6,932,824	-	22,951,207	838,645	0.000791	425,126	9%	7.9190573
21	19690.34929	0	28208.879	711.48748					75,717,626	30,670,326	-	43,939,064	1,108,236	0.000231	443,005	9%	3.9667639
22	9.698052	0	71.83985	61.610782					222,973	15,106	-	111,900	95,967	0.001909	459,794	9%	0.059064
23	29.551984	0	786.95681	368.62615					452,687	11,288	-	300,595	140,804	0.005927	464,875	9%	0.3691904
24	460.8326	0	6462.2068	1270.6032					1,254,385	70,550	-	989,315	194,520	0.009822	478,024	10%	1.5618665
25	519.103248	0	21053.819	2478.0924					2,676,498	57,768	-	2,342,958	275,773	0.00763	527,816	11%	3.8167136
26	4103.036608	0	38179.993	2351.6771					6,833,237	628,144	-	5,845,069	360,024	0.002261	528,488	11%	4.6968999
27	4904.32558	0	32043.855	1286.0707					14,604,374	1,873,310	-	12,239,822	491,242	0.000791	657,945	11%	3.6941027
28	4007.853204	0	17186.495	429.76814					33,682,424	6,242,762	-	26,770,241	669,421	0.000231	686,032	11%	1.9568802
29	2.344584	0	65.768567	54.414373					190,853	3,652	-	102,443	84,758	0.001909	704,430	12%	0.0404717
30	20.860224	0	665.93146	317.19128					383,492	7,968	-	254,366	121,158	0.005927	722,238	12%	0.2838174
31	246.138824	0	2884.397	1119.8057					650,695	37,682	-	441,579	171,434	0.009822	733,829	13%	1.056551
32	26.850168	0	8601.9926	1997.9614					1,182,596	2,988	-	957,266	222,342	0.00763	741,486	14%	2.3333946
33	15.180368	0	19349.753	1942.2362					3,261,967	2,324	-	2,962,301	297,342	0.002261	747,370	14%	3.0612218
34	351.581692	0	22095.973	1089.4422					8,990,449	134,294	-	8,440,020	416,135	0.000791	771,253	14%	2.5875003
35	252.895356	0	12731.1	364.58433					20,792,180	393,918	-	19,830,374	567,888	0.000231	773,594	14%	1.3213901
36	96.98052	0	423.94282	103.80589					973,098	151,060	-	660,347	161,691	0.001909	779,958	14%	0.1452332
37	78.660428	0	1890.5614	634.27221					994,459	30,046	-	722,140	242,274	0.005927	828,854	15%	0.940595
38	1055.035576	0	17465.35	2204.3503					3,172,801	161,518	-	2,673,814	337,469	0.009822	872,140	16%	4.0380824
39	2959.485184	0	60177.355	4045.2641					7,476,308	329,344	-	6,696,790	450,174	0.00763	902,862	17%	9.5068286
40	9469.296696	0	120467.12	3704.8262					20,459,467	1,449,678	-	18,442,608	567,181	0.002261	943,531	17%	12.698796
41	8141.571592	0	88417.96	1935.0293					37,622,063	3,109,844	-	33,773,094	739,125	0.000791	999,497	17%	9.3157341
42	7010.625876	0	41968.479	639.25074					77,287,158	10,919,978	-	65,371,462	995,718	0.000231	1,109,237	17%	4.4950465
43	0	0	32.38841	37.958205					109,574	-	-	50,449	59,125	0.001909	1,132,014	17%	0.0346616
44	38.243744	0	383.95612	229.89048					249,080	14,608	-	146,660	87,811	0.005927	1,192,000	18%	0.2441023
45	83.492024	0	2426.8779	864.0252					516,594	12,782	-	371,537	132,276	0.009822	1,193,734	19%	1.0101085
46	144.692572	0	8754.0962	1564.8584					1,164,439	16,102	-	974,193	174,144	0.00763	1,245,870	20%	2.1314792
47	1668.756168	0	21871.688	1657.8657					3,857,672	255,474	-	3,348,391	253,807	0.002261	1,320,162	20%	3.3634574
48	1257.263084	0	14052.32	878.57711					6,183,407	480,238	-	5,367,578	335,591	0.000791	1,350,031	20%	2.3996064
49	1071.58146	0	10495.864	306.18375					18,494,749	1,669,130	-	16,348,697	476,922	0.000231	1,354,764	20%	1.3958492
50	0	0	37.174695	56.249459					145,520	-	-	57,905	87,616	0.001909	1,356,709	20%	0.0494725
51	0	0	389.54146	321.00078					271,407	-	-	148,794	122,613	0.005927	1,378,640	21%	0.2906765
52	0	0	2787.4179	1089.4921					593,526	-	-	426,733	166,793	0.009822	1,421,904	22%	1.1709263
53	189.442852	0	11564.519	2071.1531					1,538,517	21,082	-	1,286,948	230,487	0.00763	1,676,255	23%	2.5629869
54	960.700432	0	17761.535	2026.7519					3,176,514	147,076	-	2,719,157	310,280	0.002261	1,729,401	23%	3.3395503
55	3452.80166	0	15625.729	1042.8614					7,685,787	1,318,870	-	5,968,575	398,343	0.000791	1,742,479	23%	2.5535972
56	3509.94882	0	9879.0263	344.12948					21,391,129	5,467,210	-	15,387,891	536,027	0.000231	1,850,406	23%	1.5004118
57	382.700052	0	1398.4487	196.14779					3,079,901	596,106	-	2,178,269	305,526	0.001909	1,941,428	23%	0.3917933
58	2015.619144	0	10537.771	1069.6451					5,203,604	769,908	-	4,025,123	408,573	0.005927	2,036,736	24%	2.420053
59	17720.91102	0	57495.419	3549.2062					12,058,410	2,712,938	-	8,802,116	543,357	0.009822	2,041,425	25%	10.685438
60	114421.9909	0	259977.22	6128.1805					42,346,694	12,733,362	-	28,931,363	681,970	0.00763	2,092,130	25%	30.788462
61	206715.4083	0	332343.67	5616.3761					83,385,709	31,646,572	-	50,879,312	859,825	0.002261	2,188,714	26%	39.983548
62	291746.3124	0	204347.16	2724.7354					190,534,076	111,438,622	-	78,054,684	1,040,770	0.000791	2,195,207	26%	25.073633
63	162535.1952	0	60415.845	834.6652					348,575,865	253,170,086	-	94,105,678	1,300,102	0.000231	2,227,632	26%	8.5765743
64	8.419188	0	56.64764	46.004141					173,008	13,114	-	88,236	71,658	0.001909	2,411,082	26%	0.0477134
65	17.818108	0	935.68166	281.87503					471,877	6,806	-	357,403	107,668	0.005927	2,444,724	26%	0.3113849
66	268.909376	0	2543.0792	991.16098					582,234	41,168	-	389,326	151,739	0.009822	2,503,670	27%	1.1533552
67	332.643748	0	17250.16	1777.0079					2,154,442	37,018	-	1,919,671	197,753	0.00763	2,535,728	28%	2.6949913
68	1035.51796	0	18685.293	1711.5057					3,281,126	158,530	-	2,860,578	262,019	0.002261	2,548,812	28%	3.1998308
69	1541.483636	0	17400.223	930.32282					7,590,539	588,802	-	6,646,380	355,356	0.000791	2,617,251	29%	2.4727795
70	1551.368604	0	11097.005	305.71293					20,177,704	2,416,462	-	17,285,054	476,188	0.000231	2,627,493	29%	1.2454158
71	0	0	22.97277	29.984597					82,488	-	-	35,783	46,705	0.001909	2,661,838	29%	0.0279912
72	50.846796	0	550.93736	186.45972					301,086	19,422	-	210,442	71,222	0.005927	2,891,157	29%	0.1772648
73	422.88168	0	4600.2916	620.14645					863,950	64,740	-	704,270	94,940	0.009822	2,938,201	30%	0.6904324
74	355.018888	0	6791.0031	1219.3347					930,932	39,508	-	755,731	135,693	0.00763	3,219,947	31%	1.6298807
75	904.316208	0	15832.507	1293.867					2,760,363	138,444	-	2,423,838	198,081	0.002261	3,538,075	31%	2.0560123
76	357.665924	0	13011.436	689.04158					5,369,803	136,618	-	4,969,991	263,194	0.000791	3,677,336	31%	1.4616294
77	62.664336	0	5307.7553	238.57777					8,736,756	97,608	-	8,267,532	371,616	0.000231	3,686,640	31%	0.8218114
78	14.92008	0	201.05873	85.620253					469,780	23,240	-	313,176	133,365	0.001909	3,780,047	32%	0.1101351
79	37.374568	0	3356.0956	485.82407					1,481,778	14,276	-	1,281,931	185,571	0.005927	3,845,735	32%	0.6677471
80	0	0	16224.334	1623.1722					2,732,319	-	-	2,483,823	248,495	0.009822	4,130,755	33%	2.5664228
81	150.659276	0	88411.235	3088.2455					10,199,214	16,766	-	9,838,775	343,673	0.00763	4,130,838	34%	7.0483488
82	491.193336	0	106045.05	2827.0447					16,742,696	75,198	-	16,234,699	432,799	0.002261	4,350,615	34%	8.1140504
83	587.562976	0	68832.12	1457.5343					27,073,040	224,432	-	26,291,872	556,736	0.000791	4,391,543	34%	5.3175245
84	175.950372	0	34676.929	474.80146					55,027,540	274,066	-	54,013,908	739,566	0.000231	4,466,305	34%	2.610494
85	0.639432	0	70.263652	74.286372					226,152	996	-	109,445	115,711	0.001909	4,718,059	34%	0.0858161
86	54.3235	0	900.2374	420.6788					525,302	20,750	-	343,865	160,687	0.005927	5,237,078	35%	0.532187
87	709.140048	0	11280.113	1496.5572					2,064,576	108,564	-	1,726,900	229,112	0.009822	5,490,119	36%	2.3766029
88	1509.576112	0	32460.362	2686.768					4,079,313	167,992	-	3,612,326	298,995	0.00763	5,797,910	37%	5.1499665
89	1236.11568	0	53105.287	2704.9876					8,733,373	189,240	-	8,130,019	414,113	0.002261	5,842,819	37%	6.9163429
90	1077.343652	0	42475.896	1433.1974					17,183,513	411,514	-	16,224,559	547,440	0.000791	5,875,578	37%	5.2263396
91	595.311192	0	23111.043	447.47624					37,622,788	927,276	-	35,998,509	697,003	0.000231	6,082,609	37%	2.4795388
92	123.516948	0	985.11486	136.05853					1,938,770	192,394	-	1,534,447	211,929	0.001909	6,195,418	37%	0.2435555
93	466.312924	0	5755.353	789.39808					2,678,023	178,118	-	2,198,378	301,527	0.005927	6,483,090	38%	1.541714
94	1855.257832	0	29772.796	2741.1384					5,261,665	284,026	-	4,557,991	419,648	0.009822	6,508,522	39%	6.3656953
95	4955.347672	0	114493.52	5003.8627					13,849,624	551,452	-	12,741,322	556,851	0.00763	6,863,782	40%	15.440374
96	16188.77816	0	214988.55	4614.1397					36,097,898	2,478,380	-	32,913,128	706,390	0.002261	6,910,469	40%	21.383351
97	18998.44901	0	164186.03	2364.9848					70,874,509	7,256,856	-	62,714,297	903,356	0.000791	7,038,401	40%	15.613359
98	13838.69392	0	81096.599	738.29104					149,024,273	21,555,598	-	126,318,689	1,149,986	0.000231	7,272,700	40%	6.9298122
99	0	0	20.510713	39.648508					93,706	-	-	31,948	61,758	0.001909	7,775,271	40%	0.0344048
100	9.560936	0	781.3449	279.69633					408,939	3,652	-	298,451	106,836	0.005927	7,833,435	41%	0.3059657
101	3.252936	0	2965.3309	942.17085					598,707	498	-	453,970	144,239	0.009822	7,999,972	42%	1.1141632
102	441.536096	0	13546.893	1859.3508					1,763,608	49,136	-	1,507,555	206,916	0.00763	8,045,866	43%	2.8739924
103	506.373704	0	21781.472	1777.8634					3,684,279	77,522	-	3,334,579	272,178	0.002261	8,163,169	43%	3.4690799

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability			
104	104	2016	9.41	0	7623.27	0	295303.94	1053.72	16600	915.42	0	377517.7	0.002618	1989 Hourly	2016	3.05	400	408.947308	0	18269.697	988.34134					7,512,218	156,206	-	6,978,494	377,518	0.000791	8,231,151	43%	2.758639
105	105	2016	29.25	0	11206.87	0	295301.22	2344.05	16600	1841.93	0	526380.36	0.000642	1989 Hourly	2016	4.76	400	311.7231	0	13252.337	337.93619					21,654,200	485,550	-	20,642,270	526,380	0.000231	9,369,223	43%	1.5048801
106	106	2016	0.75	0	1785.95	0	295302.88	112.27	16600	77.5	0	77626.19	0.000642	1990 Hourly	2016	-4.76	400	7.9929	0	88.859942	49.836014					228,487	12,450	-	138,411	77,626	0.001909	9,397,053	43%	0.0720773
107	107	2016	1.53	0	3028.78	0	295301.53	195.9	16600	164.68	0	111920.55	0.002618	1990 Hourly	2016	-3.05	400	66.491964	0	1305.8047	293.008					636,098	25,398	-	498,779	111,921	0.005927	9,547,561	44%	0.5128662
108	108	2016	4.12	0	4436.92	0	295307.09	293.51	16600	266.36	0	153926.17	0.006532	1990 Hourly	2016	-1.53	400	446.736544	0	7719.6352	1005.4457					1,404,136	68,392	-	1,181,818	153,926	0.009822	9,655,956	45%	1.9172073
109	109	2016	21.03	0	6698.21	0	295304.62	594.85	16600	617.83	0	208908.97	0.008986	1990 Hourly	2016	0	400	3136.994628	0	37187.259	1877.256					4,696,362	349,098	-	4,138,355	208,909	0.00763	9,754,034	45%	5.3453221
110	110	2016	80.27	0	8492.91	0	295300.5	1044.94	16600	1287.49	0	256562.24	0.006532	1990 Hourly	2016	1.53	400	8703.772424	0	71424.394	1675.8646					12,523,581	1,332,482	-	10,934,537	256,562	0.002261	10,384,152	46%	6.8255481
111	111	2016	219.17	0	11363.2	0	295300.84	2071.78	16600	1736.79	0	349469.28	0.002618	1990 Hourly	2016	3.05	400	9524.865196	0	51667.518	914.91058					23,723,183	3,638,222	-	19,735,492	349,469	0.000791	10,576,179	46%	5.42392
112	112	2016	834.02	0	14225.11	0	295302.69	3924.27	16600	3063.02	0	452748.63	0.000642	1990 Hourly	2016	4.76	400	8888.317944	0	27973.093	290.66462					57,869,277	13,844,732	-	43,571,796	452,749	0.000231	10,594,032	46%	2.5193813
113	113	2016	0	0	3462.67	0	296218.81	194.08	16600	100.42	0	161521.26	0.000642	1991 Hourly	2016	-4.76	400	0	0	223.23709	103.69665					509,243	-	-	347,721	161,521	0.001909	11,306,273	46%	0.1245994
114	114	2016	1.97	0	5270.86	0	296216.56	323.16	16600	185.54	0	230335.06	0.002618	1991 Hourly	2016	-3.05	400	85.613836	0	2560.2871	603.01719					1,240,992	32,702	-	977,955	230,335	0.005927	11,548,795	46%	0.8460329
115	115	2016	1.25	0	7197.85	0	296215.94	496.67	16600	451.32	0	295463.05	0.006532	1991 Hourly	2016	-1.53	400	135.539	0	21219.422	1929.9646					3,564,747	20,750	-	3,248,534	295,463	0.009822	11,908,476	47%	3.2442484
116	116	2016	11.3	0	10351.45	0	296215.34	878.46	16600	644.1	0	399498.13	0.008986	1991 Hourly	2016	0	400	1685.59388	0	59912.977	3589.8902					7,254,447	187,580	-	6,667,369	399,498	0.00763	11,989,541	48%	7.8938416
117	117	2016	13.2	0	13197.36	0	296217.28	1406.75	16600	1012.14	0	499597.25	0.006532	1991 Hourly	2016	1.53	400	1431.29184	0	87251.686	3263.3692					14,076,293	219,120	-	13,357,576	499,597	0.002261	12,247,502	48%	9.188891
118	118	2016	37.56	0	17460.64	0	296218.19	2533.16	16600	1476.61	0	651612.03	0.002618	1991 Hourly	2016	3.05	400	1632.312528	0	67498.731	1705.9203					27,057,664	623,496	-	25,782,556	651,612	0.000791	12,524,581	49%	6.6318129
119	119	2016	176.17	0	23601.47	0	296214.59	5010.66	16600	2759.29	0	838799.24	0.000642	1991 Hourly	2016	4.76	400	1877.478924	0	41809.159	538.50911					68,886,521	2,924,422	-	65,123,300	838,799	0.000231	13,887,491	49%	3.2168437
120	120	2016	0.48	0	539.8	0	295303.09	41.36	16600	40.93	0	42014.63	0.000642	1992 Hourly	2016	-4.76	400	5.115456	0	14.184357	26.973392					72,077	7,968	-	22,094	42,015	0.001909	15,002,594	49%	0.0265531
121	121	2016	0.63	0	1055.68	0	295306.19	76.28	16600	153.22	0	69964.34	0.002618	1992 Hourly	2016	-3.05	400	27.379044	0	423.46488	183.16664					242,174	10,458	-	161,751	69,964	0.005927	15,279,847	49%	0.199701
122	122	2016	1.18	0	1595.16	0	295304.56	111.93	16600	178.45	0	92231.2	0.006532	1992 Hourly	2016	-1.53	400	127.948816	0	1859.375	602.4542					396,476	19,588	-	284,656	92,231	0.009822	15,736,127	50%	0.7311268
123	123	2016	2.05	0	1959.26	0	295303.47	163.34	16600	266.57	0	119265.17	0.008986	1992 Hourly	2016	0	400	305.79358	0	4693.2075	1071.7168					675,575	34,030	-	522,280	119,265	0.00763	16,020,383	51%	1.4677732
124	124	2016	5.01	0	2832.47	0	295302.41	288.7	16600	563.09	0	166744.83	0.006532	1992 Hourly	2016	1.53	400	543.240312	0	10418.119	1089.1772					1,844,846	83,166	-	1,594,936	166,745	0.002261	16,118,748	51%	1.8857884
125	125	2016	26.25	0	4200.77	0	295305	584.11	16600	814.35	0	226357.69	0.002618	1992 Hourly	2016	3.05	400	1140.7935	0	8955.9085	592.60443					4,083,005	435,750	-	3,420,897	226,358	0.000791	16,326,879	51%	1.5292
126	126	2016	133.7	0	5979.47	0	295302.5	1298.21	16600	1639.47	0	321075.56	0.000642	1992 Hourly	2016	4.76	400	1424.86764	0	6293.6298	206.13051					12,343,657	2,219,420	-	9,803,162	321,076	0.000231	16,426,661	51%	0.8334508
127	127	2016	0	0	2253.5	0	296391.94	152.04	16600	38.56	0	118567.51	0.000642	1993 Hourly	2016	-4.76	400	0	0	55.786564	76.120341					205,462	-	-	86,895	118,568	0.001909	16,459,700	52%	0.0976097
128	128	2016	2.62	0	3899.19	0	296389.09	263.82	16600	139.46	0	175034.65	0.002618	1993 Hourly	2016	-3.05	400	113.862056	0	1423.6188	458.24071					762,308	43,492	-	543,781	175,035	0.005927	17,515,262	52%	0.6906808
129	129	2016	8.92	0	5867.13	0	296391.62	418.76	16600	255.39	0	244368.15	0.006532	1993 Hourly	2016	-1.53	400	967.206304	0	9787.5902	1596.2128					1,890,846	148,072	-	1,498,406	244,368	0.009822	18,203,651	53%	2.7353403
130	130	2016	3.94	0	8112.74	0	296389.81	673.67	16600	381.09	0	327102.82	0.008986	1993 Hourly	2016	0	400	587.720344	0	27781.873	2939.3459					3,484,191	65,404	-	3,091,684	327,103	0.00763	18,469,509	54%	6.0535986
131	131	2016	23.37	0	12002.26	0	296387.91	1343.15	16600	822.4	0	448564.99	0.006532	1993 Hourly	2016	1.53	400	2534.037144	0	64475.142	2930.0265					10,707,166	387,942	-	9,870,659	448,565	0.002261	18,546,480	54%	8.7734558
132	132	2016	50.26	0	15266.52	0	296390.62	2345.06	16600	1371.23	0	570024.49	0.002618	1993 Hourly	2016	3.05	400	2184.239288	0	54804.977	1492.3241					22,338,251	834,316	-	20,933,910	570,024	0.000791	18,628,799	54%	6.1393671
133	133	2016	237.12	0	20795.71	0	296389.25	4868.36	16600	2204.06	0	770596.41	0.000642	1993 Hourly	2016	4.76	400	2527.035264	0	29426.065	494.7229					50,541,781	3,936,192	-	45,834,993	770,596	0.000231	19,954,558	54%	3.1254871
134	134	2016	0.05	0	1479.01	0	295753.44	102.32	16600	58.32	0	92223.55	0.000642	1994 Hourly	2016	-4.76	400	0.53286	0	55.376264	59.207519					179,309	830	-	86,256	92,224	0.001909	20,370,709	54%	0.0656894
135	135	2016	0.58	0	2308.6	0	295759.53	154.3	16600	85.67	0	133529.62	0.002618	1994 Hourly	2016	-3.05	400	25.206104	0	517.78218	349.58055					340,935	9,628	-	197,778	133,530	0.005927	20,655,614	55%	0.4039574
136	136	2016	2.98	0	3476.34	0	295750.97	235.92	16600	160.2	0	182701.98	0.006532	1994 Hourly	2016	-1.53	400	323.124976	0	3637.734	1193.4093					789,080	49,468	-	556,910	182,702	0.009822	20,799,395	56%	1.5410294
137	137	2016	3.96	0	5146.27	0	295755	417.38	16600	378.04	0	253902.46	0.008986	1994 Hourly	2016	0	400	590.703696	0	17482.226	2281.5675					2,265,134	65,736	-	1,945,496	253,902	0.00763	21,647,400	57%	3.7505767
138	138	2016	24.4	0	8225.6	0	295756.94	856.7	16600	700.02	0	360590.5	0.006532	1994 Hourly	2016	1.53	400	2645.72128	0	37611.808	2355.3771					6,523,715	405,040	-	5,758,085	360,591	0.002261	22,378,108	57%	5.5959644
139	139	2016	54.32	0	10319.7	0	295756.06	1460.75	16600	849.28	0	467657.89	0.002618	1994 Hourly	2016	3.05	400	2360.682016	0	22944.976	1224.3284					10,133,685	901,712	-	8,764,315	467,658	0.000791	22,403,865	57%	3.8242435
140	140	2016	284.65	0	14689.58	0	295755.47	3333.96	16600	1793.22	0	632357.46	0.000642	1994 Hourly	2016	4.76	400	3033.57198	0	16911.338	405.97349					31,699,196	4,725,190	-	26,341,649	632,357	0.000231	22,468,085	57%	2.1404023
141	141	2016	7.3	0	4080.28	0	295485.34	250.3	16600	111.32	0	211683.21	0.000642	1995 Hourly	2016	-4.76	400	77.79756	0	291.60717	135.90062					787,080	121,180	-	454,217	211,683	0.001909	22,712,944	57%	0.1606926
142	142	2016	14.63	0	6994.99	0	295483.91	442.51	16600	338.39	0	303218.58	0.002618	1995 Hourly	2016	-3.05	400	635.802244	0	6196.8968	793.82624					2,913,111	242,858	-	2,367,035	303,219	0.005927	23,215,464	58%	1.1584912
143	143	2016	18.25	0	9161.27	0	295481.44	631.1	16600	415.99	0	392742.3	0.006532	1995 Hourly	2016	-1.53	400	1978.8694	0	24893.43	2565.3927					4,506,689	302,950	-	3,810,997	392,742	0.009822	24,989,141	59%	4.1223452
144	144	2016	32.46	0	13376.97	0	295482.75	1153.48	16600	658.59	0	539999.53	0.008986	1995 Hourly	2016	0	400	4841.980296	0	79166.109	4852.4358					9,888,774	538,836	-	8,809,939	540,000	0.00763	26,409,021	60%	10.365171
145	145	2016	105.38	0	17454.5	0	295482.44	2063.81	16600	1026.47	0	690769.45	0.006532	1995 Hourly	2016	1.53	400	11426.47986	0	117030.71	4512.106					20,356,598	1,749,308	-	17,916,521	690,769	0.002261	27,007,798	60%	13.480807
146	146	2016	343.24	0	22992.81	0	295484.03	3812.4	16600	1702.89	0	877190.35	0.002618	1995 Hourly	2016	3.05	400	14916.79851	0	102505.76	2296.4843					45,729,201	5,697,784	-	39,154,226	877,190	0.000791	27,051,835	60%	9.9808632
147	147	2016	1307.06	0	29927.54	0	295481.59	7498.82	16600	2770.99	0	1143307.2	0.000642	1995 Hourly	2016	4.76	400	13929.59983	0	53240.363	734.0032					105,769,417	21,697,196	-	82,928,914	1,143,307	0.000231	27,877,290	60%	4.8142424
148	148	2016	0	0	1348.36	0	295393.72	87.53	16600	112	0	80443.06	0.000642	1996 Hourly	2016	-4.76	400	0	0	96.952477	51.644445					231,459	-	-	151,016	80,443	0.001909	28,433,145	60%	0.0561943
149	149	2016	2.21	0	1681.22	0	295391.88	120.54	16600	170.24	0	108570.8	0.002618	1996 Hourly	2016	-3.05	400	96.043948	0	749.30012	284.23835					431,468	36,686	-	286,211	108,571	0.005927	29,053,865	61%	0.3155737
150	150	2016	0.89	0	2625.16	0	295390.94	188	16600	163.9	0	154292.95	0.006532	1996 Hourly	2016	-1.53	400	96.503768	0	2810.4826	1007.8415					599,331	14,774	-	430,264	154,293	0.009822	32,023,523	62%	1.228016
151	151	2016	0.22	0	4223.22	0	295389.16	349.04	16600	315.51	0	215444.32	0.008986	1996 Hourly	2016	0	400	32.816872	0	11973.559	1935.9827					1,551,564	3,652	-	1,332,468	215,444	0.00763	32,060,835	63%	3.1364734
152	152	2016	1.5	0	5672.44	0	295389.97	570.96	16600	594.23	0	284891.81	0.006532	1996 Hourly	2016	1.53	400	162.6468	0	22017.635	1860.9133					3,680,526	24,900	-	3,370,734	284,892	0.002261	32,590,320	63%	3.7295107
153	153	2016	3.2	0	7846.81	0	295388.22	1119.31	16600	1016.35	0	385392.63	0.002618	1996 Hourly	2016	3.05	400	139.06816	0	20878.826	1008.9579					8,413,618	53,120	-	7,975,105	385,393	0.000791	33,652,538	63%	2.9303536
154	154	2016	17.8	0	10877.46	0	295388.06	2257.73	16600	1680.19	0	530487.46	0.000642	1996 Hourly	2016	4.76	400	189.69816	0	11733.32	340.57295					19,102,167	295,480	-	18,276,200	530,487	0.000231	34,405,644	63%	1.4494627
155	155	2016	0.1	0	2401.61	0	296243.53	142.27	16600	169.92	0	130066.48	0.000642	1997 Hourly	2016	-4.76	400	1.06572	0	261.98837	83.50268					539,808	1,660	-	408,082	130,066	0.001909	34,493,339	63%	0.0913373
156	156	2016	0.95	0	3113.88	0	296242.19	198.94	16600	151.73	0	164151.87	0.002618	1997 Hourly	2016	-3.05	400	41.28586	0	1236.9239	429.7496					652,391	15,770	-	472,469	164,152	0.005927	36,412,038	64%	0.5208249
157	157	2016	6.64	0	4437.96	0	296243.31	309.72	16600	279.04	0	229127.06	0.006532	1997 Hourly	2016	-1.53	400	719.983168	0	8089.0221	1496.658					1,577,719	110,224	-	1,238,368	229,127	0.009822	36,677,631	65%	2.023091
158	158	2016	4.85	0	7079.01	0	296245.03	596.95	16600	633.4	0	308808.19	0.008986	1997 Hourly	2016	0	400	723.46286	0	40291.831	2774.9504					4,873,163	80,510	-	4,483,845	308,808	0.00763	36,818,664	65%	5.3641927
159	159	2016	9.58	0	9098.32	0	296240.03	952.75	16600	950.48	0	408425.88	0.006532	1997 Hourly	2016	1.53	400	1038.770896	0	56487.241	2667.8378					9,215,225	159,028	-	8,647,771	408,426	0.002261	37,461,556	66%	6.223363
160	160	2016	18.44	0	12444.43	0	296245.62	1812.54	16600	1197.97	0	527058.68	0.002618	1997 Hourly	2016	3.05	400	801.380272	0	39029.285	1379.8396					15,741,216	306,104	-	14,908,054	527,059	0.000791	39,568,617	66%	4.7452297
161	161	2016	81.41	0	17217.66	0	296242.72	3770.56	16600	2231.45	0	694827.65	0.000642	1997 Hourly	2016	4.76	400	867.602652	0	24665.863	446.07935					40,466,581	1,351,406	-	38,420,347	694,828	0.000231	40,209,750	66%	2.4206995
162	162	2016	0	0	1251.96	0	296283.31	85.56	16600	47.27	0	81497.28	0.000642	1998 Hourly	2016	-4.76	400	0	0	37.993656	52.321254					140,677	-	-	59,180	81,497	0.001909	40,332,589	66%	0.0549295
163	163	2016	0	0	2007.31	0	296279.28	134.01	16600	128.42	0	123233.08	0.002618	1998 Hourly	2016	-3.05	400	0	0	674.86477	322.6242					381,012	-	-	257,779	123,233	0.005927	40,705,017	66%	0.3508382
164	164	2016	0.33	0	2747.1	0	296280.16	195.54	16600	179.02	0	169159.21	0.006532	1998 Hourly	2016	-1.53	400	35.782296	0	3212.3451	1104.948					666,423	5,478	-	491,786	169,159	0.009822	41,071,294	67%	1.2772673
165	165	2016	7.11	0	4396.73	0	296280.56	365.02	16600	564.62	0	234835.68	0.008986	1998 Hourly	2016	0	400	1060.581636	0	22307.58	2110.2334					2,835,343	118,026	-	2,482,482	234,836	0.00763	43,372,819	68%	3.2800697
166	166	2016	1.22	0	6613.75	0	296281.56	698.42	16600	681.53	0	324335.93	0.006532	1998 Hourly	2016	1.53	400	132.286064	0	29442.788	2118.5623					4,852,057	20,252	-	4,507,469	324,336	0.002261	44,232,870	68%	4.5620794
167	167	2016	1.43	0	8127.02	0	296281.72	1131.87	16600	927.42	0	408579.05	0.002618	1998 Hourly	2016	3.05	400	62.146084	0	19732.287	1069.66					7,969,478	23,738	-	7,537,161	408,579	0.000791	44,528,449	69%	2.9632357
168	168	2016	9.86	0	11562.69	0	296281.88	2518.39	16600	1617.68	0	575339.94	0.000642	1998 Hourly	2016	4.76	400	105.079992	0	12008.438	369.36824					19,443,748	163,676	-	18,704,732	575,340	0.000231	46,582,851	69%	1.6168064
169	169	2016	7.36	0	6730.1	0	295301.84	378.35	16600	115.88	0	205062.29	0.000642	1999 Hourly	2016	-4.76	400	78.436992	0	500.68552	131.64999					1,107,122	122,176	-	779,884	205,062	0.001909	48,581,465	69%	0.2429007
170	170	2016	24.4	0	10720.85	0	295300.88	658.32	16600	321.82	0	288636.06	0.002618	1999 Hourly	2016	-3.05	400	1060.39472	0	9032.5816	755.64921					4,143,860	405,040	-	3,450,184	288,636	0.005927	51,426,739	69%	1.7234818
171	171	2016	91.79	0	15216.57	0	295300.56	1159.67	16600	427.06	0	392066.5	0.006532	1999 Hourly	2016	-1.53	400	9952.899848	0	42447.473	2560.9784					8,414,169	1,523,714	-	6,498,388	392,067	0.009822	52,100,409	70%	7.5749644
172	172	2016	360.76	0	18857.19	0	295301	2127.24	16600	849.07	0	497941.66	0.008986	1999 Hourly	2016	0	400	53813.70338	0	143875.51	4474.5038					22,497,632	5,988,616	-	16,011,074	497,942	0.00763	52,502,618	71%	19.115379
173	173	2016	1042.44	0	23887.75	0	295302.53	3999.16	16600	1371.82	0	639300	0.006532	1999 Hourly	2016	1.53	400	113033.0201	0	214051.64	4175.9076					50,713,497	17,304,504	-	32,769,693	639,300	0.002261	53,171,077	71%	26.122513
174	174	2016	3383.68	0	26915.83	0	295301.44	6467.84	16600	2064.39	0	786722.42	0.002618	1999 Hourly	2016	3.05	400	147050.6724	0	145468.57	2059.6393					112,520,581	56,169,088	-	55,564,770	786,722	0.000791	53,356,604	71%	16.932805
175	175	2016	8249.53	0	29248.34	0	295302.94	10206.33	16600	2665.37	0	995871.41	0.000642	1999 Hourly	2016	4.76	400	87916.89112	0	50048.81	639.34945					215,895,717	136,942,198	-	77,957,648	995,871	0.000231	54,249,263	71%	6.5524639
176	176	2016	0	0	863.37	0	295650.09	62.75	16600	37.13	0	72070.7	0.000642	2000 Hourly	2016	-4.76	400	0	0	20.580548	46.269389					104,128	-	-	32,057	72,071	0.001909	57,152,308	72%	0.0402855
177	177	2016	0.98	0	1511.69	0	295649.75	105.7	16600	158.15	0	102931.07	0.002618	2000 Hourly	2016	-3.05	400	42.589624	0	625.89514	269.47354					358,273	16,268	-	239,074	102,931	0.005927	58,924,586	72%	0.2767226
178	178	2016	3.7	0	2412.73	0	295652.41	175	16600	532.18	0	150782.94	0.006532	2000 Hourly	2016	-1.53	400	401.19544	0	8387.1314	984.91416					1,496,210	61,420	-	1,284,007	150,783	0.009822	63,532,658	73%	1.1431
179	179	2016	1.72	0	2800.88	0	295648.44	226.72	16600	271.68	0	189701.04	0.008986	2000 Hourly	2016	0	400	256.568272	0	6837.8345	1704.6535					979,196	28,552	-	760,943	189,701	0.00763	66,106,372	74%	2.0373059
180	180	2016	1.68	0	4718.8	0	295652.44	478.05	16600	609.97	0	274374.65	0.006532	2000 Hourly	2016	1.53	400	182.164416	0	18801.228	1792.2152					3,180,589	27,888	-	2,878,326	274,375	0.002261	68,333,884	74%	3.1226226
181	181	2016	14.35	0	6618.28	0	295654.41	882.7	16600	1075.6	0	368498.44	0.002618	2000 Hourly	2016	3.05	400	623.63378	0	18636.552	964.72892					7,725,330	238,210	-	7,118,622	368,498	0.000791	68,792,792	74%	2.3109086
182	182	2016	59.41	0	8963.59	0	295655.28	1841.92	16600	1400.93	0	500458.38	0.000642	2000 Hourly	2016	4.76	400	633.144252	0	8061.8265	321.29428					14,044,027	986,206	-	12,557,362	500,458	0.000231	69,786,060	74%	1.1825126
183	183	2016	0.45	0	1510.76	0	296597.41	105.33	16600	43.17	0	72794.96	0.000642	2001 Hourly	2016	-4.76	400	4.79574	0	41.870925	46.734364					145,484	7,470	-	65,220	72,795	0.001909	70,328,618	74%	0.0676219
184	184	2016	0.36	0	2397.83	0	296600.09	162.96	16600	202.39	0	105289.54	0.002618	2001 Hourly	2016	-3.05	400	15.645168	0	1270.5071	275.64802					596,562	5,976	-	485,297	105,290	0.005927	70,406,660	75%	0.4266293
185	185	2016	0.44	0	3392.94	0	296598.09	238.38	16600	165.35	0	148302.12	0.006532	2001 Hourly	2016	-1.53	400	47.709728	0	3664.5998	968.70945					716,629	7,304	-	561,023	148,302	0.009822	72,044,117	76%	1.5570982
186	186	2016	1.51	0	4883.08	0	296599.59	407.77	16600	399.85	0	205674.22	0.008986	2001 Hourly	2016	0	400	225.243076	0	17545.161	1848.1885					2,183,240	25,066	-	1,952,500	205,674	0.00763	72,195,618	77%	3.6642212
187	187	2016	2.24	0	6656.76	0	296598.84	690.14	16600	584.75	0	280527.26	0.006532	2001 Hourly	2016	1.53	400	242.885888	0	25426.074	1832.4041					4,210,252	37,184	-	3,892,540	280,527	0.002261	72,694,374	77%	4.5079945
188	188	2016	9.58	0	8955.26	0	296596.84	1266.16	16600	979.31	0	374350.04	0.002618	2001 Hourly	2016	3.05	400	416.335304	0	22959.796	980.0484					9,303,354	159,028	-	8,769,976	374,350	0.000791	72,835,776	77%	3.3148069
189	189	2016	13.2	0	12008.05	0	296600.44	2590.63	16600	1654.42	0	504910.13	0.000642	2001 Hourly	2016	4.76	400	140.67504	0	12754.202	324.1523					20,590,388	219,120	-	19,866,358	504,910	0.000231	74,649,699	77%	1.6631845
190	190	2016	2.02	0	3519.94	0	295302.41	225.38	16600	77.86	0	157771.93	0.000642	2002 Hourly	2016	-4.76	400	21.527544	0	175.94814	101.28958					465,366	33,532	-	274,063	157,772	0.001909	76,593,401	77%	0.144694
191	191	2016	0.9	0	5432.23	0	295300.69	345	16600	113.38	0	228590.6	0.002618	2002 Hourly	2016	-3.05	400	39.11292	0	1612.4425	598.45019					859,437	14,940	-	615,906	228,591	0.005927	79,624,168	78%	0.90321
192	192	2016	6.33	0	8128.6	0	295303.84	548.84	16600	215.53	0	318418.84	0.006532	2002 Hourly	2016	-1.53	400	686.369496	0	11443.784	2079.9119					2,175,454	105,078	-	1,751,957	318,419	0.009822	82,207,555	79%	3.5850229
193	193	2016	10.51	0	11471.45	0	295301.41	970.97	16600	557.97	0	427306.76	0.008986	2002 Hourly	2016	0	400	1567.751476	0	57516.914	3839.7785					7,002,498	174,466	-	6,400,725	427,307	0.00763	86,599,260	80%	8.7251364
194	194	2016	21.51	0	16403.81	0	295302.59	1840.73	16600	958.87	0	574650.41	0.006532	2002 Hourly	2016	1.53	400	2332.355112	0	102742.62	3753.6165					16,660,838	357,066	-	15,729,121	574,650	0.002261	87,964,820	80%	12.023648
195	195	2016	66.68	0	21020.14	0	295298.09	3215.34	16600	1384	0	734141.73	0.002618	2002 Hourly	2016	3.05	400	2897.832784	0	76162.526	1921.983					30,932,903	1,106,888	-	29,091,874	734,142	0.000791	88,571,023	80%	8.4177601
196	196	2016	214.07	0	28029.83	0	295303.22	6417.9	16600	2403.35	0	964860.52	0.000642	2002 Hourly	2016	4.76	400	2281.386804	0	43248.646	619.44045					71,883,914	3,553,562	-	67,365,492	964,861	0.000231	90,309,566	80%	4.1202918
197	197	2016	0	0	863.78	0	295949.62	62.06	16600	70.98	0	71189.58	0.000642	2003 Hourly	2016	-4.76	400	0	0	39.361729	45.70371					132,501	-	-	61,311	71,190	0.001909	94,094,187	80%	0.0398425
198	198	2016	0	0	1462.63	0	295949.38	104.02	16600	76.69	0	106711.49	0.002618	2003 Hourly	2016	-3.05	400	0	0	293.65869	279.37068					218,881	-	-	112,169	106,711	0.005927	98,416,062	81%	0.2723244
199	199	2016	0.68	0	2289.67	0	295949	168.44	16600	151.53	0	150406.18	0.006532	2003 Hourly	2016	-1.53	400	73.733216	0	2266.3015	982.45317					508,648	11,288	-	346,954	150,406	0.009822	98,995,558	82%	1.1002501
200	200	2016	2.88	0	3657.51	0	295948.44	309.41	16600	349.19	0	207103.85	0.008986	2003 Hourly	2016	0	400	429.602688	0	11476.613	1861.0352					1,532,078	47,808	-	1,277,166	207,104	0.00763	99,617,665	83%	2.7803583
201	201	2016	9.12	0	4925.59	0	295952.03	522.37	16600	633.11	0	275963.72	0.006532	2003 Hourly	2016	1.53	400	988.892544	0	20369.652	1802.595					3,545,796	151,392	-	3,118,440	275,964	0.002261	102,624,792	83%	3.4121208
202	202	2016	31.35	0	7146.65	0	295950.41	1023.47	16600	1029.81	0	374677.03	0.002618	2003 Hourly	2016	3.05	400	1362.43338	0	19267.673	980.90446					8,254,779	520,410	-	7,359,692	374,677	0.000791	103,958,743	83%	2.6794445
203	203	2016	169.89	0	10989.17	0	295951	2379	16600	1700.42	0	545903.12	0.000642	2003 Hourly	2016	4.76	400	1810.551708	0	11996.543	350.4698					22,052,282	2,820,174	-	18,686,204	545,903	0.000231	111,163,903	83%	1.527318
204	204	2016	0	0	442.35	0	295298.84	32.13	16600	45.99	0	39897.66	0.000642	2004 Hourly	2016	-4.76	400	0	0	13.06064	25.614298					60,241	-	-	20,344	39,898	0.001909	111,220,968	83%	0.0206275
205	205	2016	0	0	570.79	0	295301.16	44.5	16600	70.08	0	58695.23	0.002618	2004 Hourly	2016	-3.05	400	0	0	104.72252	153.66411					98,696	-	-	40,001	58,695	0.005927	113,151,289	84%	0.116501
206	206	2016	0	0	933.28	0	295301.56	69.38	16600	173.87	0	81227.85	0.006532	2004 Hourly	2016	-1.53	400	0	0	1059.9437	530.58032					243,497	-	-	162,269	81,228	0.009822	120,017,937	85%	0.4531902

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
207	207	2016	1.38	0	1457.55	0	295300.81	125.9	16600	322.69	0	120246.77	0.008986	2004 Hourly	2016	0	400	205.851288	0	4226.4466	1080.5375
208	208	2016	4.33	0	2205.61	0	295302.09	225.53	16600	498.24	0	159996.94	0.006532	2004 Hourly	2016	1.53	400	469.507096	0	7178.1659	1045.1
209	209	2016	20.09	0	3232.49	0	295303.09	456.36	16600	761.66	0	226145.29	0.002618	2004 Hourly	2016	3.05	400	873.087292	0	6445.6687	592.04837
210	210	2016	63.08	0	4539.61	0	295298.41	967.93	16600	1334.43	0	309497.5	0.000642	2004 Hourly	2016	4.76	400	672.256176	0	3889.1023	198.6974
211	211	2016	1.81	0	3550.06	0	296224.16	222.86	16600	82.31	0	144999.3	0.000642	2005 Hourly	2016	-4.76	400	19.289532	0	187.59589	93.089551
212	212	2016	3.89	0	5189.24	0	296225.94	332.38	16600	154.42	0	208256.09	0.002618	2005 Hourly	2016	-3.05	400	169.054732	0	2097.8622	545.21444
213	213	2016	9.44	0	7484.55	0	296222.81	516.89	16600	341.06	0	279704	0.006532	2005 Hourly	2016	-1.53	400	1023.590528	0	16674.11	1827.0265
214	214	2016	24.36	0	11032.45	0	296223.88	964.65	16600	708.54	0	374943.52	0.008986	2005 Hourly	2016	0	400	3633.722736	0	70242.952	3369.2425
215	215	2016	75.93	0	14600.44	0	296225.97	1709.74	16600	1004.21	0	498048.11	0.006532	2005 Hourly	2016	1.53	400	8233.181016	0	95771.582	3253.2503
216	216	2016	190.62	0	19242.73	0	296224.62	3058.12	16600	1418.19	0	645500.86	0.002618	2005 Hourly	2016	3.05	400	8284.116456	0	71444.82	1689.9213
217	217	2016	650.18	0	25683.55	0	296229.88	6186.28	16600	2425.23	0	864366.29	0.000642	2005 Hourly	2016	4.76	400	6929.098296	0	39989.227	554.92316
218	218	2016	1.18	0	2400.64	0	295578.34	162.74	16600	59.6	0	121937	0.000642	2006 Hourly	2016	-4.76	400	12.575496	0	91.856168	78.283554
219	219	2016	0.66	0	4230.84	0	295581.88	272.74	16600	152.07	0	185893.73	0.002618	2006 Hourly	2016	-3.05	400	28.682808	0	1684.3789	486.66979
220	220	2016	12.87	0	6012.23	0	295578.91	429.34	16600	285.41	0	239161.36	0.006532	2006 Hourly	2016	-1.53	400	1395.509544	0	11208.589	1562.202
221	221	2016	6.18	0	9053.41	0	295584.69	777.4	16600	517.83	0	334285.37	0.008986	2006 Hourly	2016	0	400	921.855768	0	42127.512	3003.8883
222	222	2016	19.33	0	12701.11	0	295581.22	1402.63	16600	801.52	0	446786.83	0.006532	2006 Hourly	2016	1.53	400	2095.975096	0	66497.025	2918.4116
223	223	2016	59.82	0	16373.31	0	295579.44	2547.07	16600	1285.08	0	563531.07	0.002618	2006 Hourly	2016	3.05	400	2599.705416	0	55085.373	1475.3243
224	224	2016	208.18	0	22255.37	0	295582.5	5276.31	16600	2334.16	0	753597.96	0.000642	2006 Hourly	2016	4.76	400	2218.615896	0	33350.356	483.80989
225	225	2016	7.23	0	8305.41	0	296275.09	482.7	16600	83.45	0	272022.98	0.000642	2007 Hourly	2016	-4.76	400	77.051556	0	444.96151	174.63875
226	226	2016	20.64	0	12672.8	0	296277.94	774.74	16600	252.84	0	380096.69	0.002618	2007 Hourly	2016	-3.05	400	896.989632	0	8388.5714	995.09313
227	227	2016	33.25	0	17011.88	0	296272.75	1140.04	16600	374.31	0	494328.21	0.006532	2007 Hourly	2016	-1.53	400	3605.3374	0	41593.926	3228.9519
228	228	2016	150.3	0	22772.72	0	296274.5	2143.31	16600	746.18	0	645937.96	0.008986	2007 Hourly	2016	0	400	22419.89028	0	152695.04	5804.3985
229	229	2016	484.72	0	28838.24	0	296277.06	3988.64	16600	1121.69	0	807806.69	0.006532	2007 Hourly	2016	1.53	400	52558.77126	0	211294.3	5276.5933
230	230	2016	1325.06	0	34821.43	0	296275.19	7107.44	16600	1755.69	0	996436.28	0.002618	2007 Hourly	2016	3.05	400	57585.51753	0	160053.1	2608.6702
231	231	2016	5309.89	0	41378.61	0	296277.22	12311.03	16600	2759.31	0	1279064.9	0.000642	2007 Hourly	2016	4.76	400	56588.55971	0	73301.257	821.15968
232	232	2016	0.31	0	1383.23	0	295693.59	102.27	16600	60.32	0	92759.69	0.000642	2008 Hourly	2016	-4.76	400	3.303732	0	53.56619	59.551721
233	233	2016	0	0	2329.5	0	295695.97	158.16	16600	92.89	0	135373.24	0.002618	2008 Hourly	2016	-3.05	400	0	0	566.50183	354.40714
234	234	2016	0.02	0	3307.31	0	295693.22	235.24	16600	161.89	0	189006.13	0.006532	2008 Hourly	2016	-1.53	400	2.168624	0	3497.3662	1234.588
235	235	2016	3.64	0	4982.26	0	295695.03	423.11	16600	453.45	0	261278.37	0.008986	2008 Hourly	2016	0	400	542.970064	0	20301.223	2347.8474
236	236	2016	1.43	0	6695.48	0	295697.31	667.17	16600	646.7	0	348746.13	0.006532	2008 Hourly	2016	1.53	400	155.056616	0	28283.344	2278.0097
237	237	2016	4.26	0	9470.67	0	295695.03	1273.02	16600	1021.38	0	456168.6	0.002618	2008 Hourly	2016	3.05	400	185.134488	0	25324.314	1194.2494
238	238	2016	4.65	0	13180.97	0	295694.94	2795.6	16600	1696.43	0	622615.13	0.000642	2008 Hourly	2016	4.76	400	49.55598	0	14355.501	399.71891
239	239	2016	0	0	618.28	0	296140.22	43.48	16600	42.48	0	49267.54	0.000642	2009 Hourly	2016	-4.76	400	0	0	16.861831	31.629761
240	240	2016	0	0	1168.34	0	296141.34	80.5	16600	86.62	0	77026.36	0.002618	2009 Hourly	2016	-3.05	400	0	0	264.94582	201.65501
241	241	2016	0.87	0	1705.39	0	296140	127.87	16600	194.88	0	106566.84	0.006532	2009 Hourly	2016	-1.53	400	94.335144	0	2170.8867	696.0946
242	242	2016	2.63	0	2549.06	0	296141.72	210.64	16600	286.24	0	149348.37	0.008986	2009 Hourly	2016	0	400	392.310788	0	6556.5714	1342.0445
243	243	2016	19.53	0	3491.09	0	296140.97	371.78	16600	535.84	0	200553.59	0.006532	2009 Hourly	2016	1.53	400	2117.661336	0	12219.188	1310.016
244	244	2016	56.02	0	4972.99	0	296143.66	728.5	16600	920.07	0	275871.13	0.002618	2009 Hourly	2016	3.05	400	2434.561976	0	11978.656	722.23062
245	245	2016	292.53	0	6604.13	0	296142.97	1548.59	16600	1496.03	0	373752.72	0.000642	2009 Hourly	2016	4.76	400	3117.550716	0	6342.945	239.94925

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability			
207					613,492	22,908	-	470,337	120,247	0.00763	128,116,668	85%	1.1313374
208					1,330,798	71,878	-	1,098,923	159,997	0.002261	131,686,654	86%	1.473162
209					3,021,698	333,494	-	2,462,058	226,145	0.000791	134,232,169	86%	1.1947505
210					7,414,417	1,047,128	-	6,057,792	309,498	0.000231	141,560,469	86%	0.6214111
211					467,251	30,046	-	292,205	144,999	0.001909	152,164,386	86%	0.1430761
212					1,074,153	64,574	-	801,322	208,256	0.005927	152,791,291	86%	0.8701708
213					2,989,089	156,704	-	2,552,681	279,704	0.009822	154,141,004	87%	3.3763255
214					8,596,252	404,376	-	7,816,932	374,944	0.00763	154,307,650	88%	8.6683449
215					16,420,394	1,260,438	-	14,661,908	498,048	0.002261	155,440,488	88%	11.168022
216					31,099,640	3,164,292	-	27,289,847	645,501	0.000791	168,609,612	89%	8.0061582
217					73,945,870	10,792,988	-	62,288,516	864,366	0.000231	173,602,129	89%	3.9715918
218					284,603	19,588	-	143,078	121,937	0.001909	178,393,042	89%	0.1044791
219					840,234	10,956	-	643,384	185,894	0.005927	194,691,350	89%	0.7140333
220			3.57	1,929,593	2,168,754	213,642	-	1,715,951	239,161	0.009822	201,121,877	90%	2.8044489
221			0.866666667	4,790,715	5,125,001	102,588	-	4,688,127	334,285	0.00763	218,466,770	91%	6.9857164
222			2,861,123		10,947,859	320,878	-	10,180,194	446,787	0.002261	220,083,156	91%	9.1619792
223			2,311,075.60		22,597,556	993,012	-	21,041,013	563,531	0.000791	233,436,273	91%	6.6682293
224					56,156,980	3,455,788	-	51,947,594	753,598	0.000231	240,920,423	91%	3.387391
225					1,085,127	120,018	-	693,086	272,023	0.001909	247,003,123	92%	0.3098934
226					3,926,911	342,624	-	3,204,191	380,097	0.005927	255,710,340	92%	2.0282693
227					7,413,995	551,950	-	6,367,717	494,328	0.009822	267,759,921	93%	7.4467413
228					20,133,466	2,494,980	-	16,992,548	645,938	0.00763	293,640,818	94%	19.259784
229					41,201,724	8,046,352	-	32,347,565	807,807	0.002261	307,790,568	94%	26.053796
230					84,128,069	21,995,996	-	61,135,636	996,436	0.000791	329,742,447	94%	18.607278
231					203,599,651	88,144,174	-	114,176,412	1,279,065	0.000231	350,116,554	94%	7.9036813
232					181,342	5,146	-	83,436	92,760	0.001909	356,130,897	94%	0.0656573
233					351,760	-	-	216,387	135,373	0.005927	380,018,127	95%	0.4140629
234					724,759	332	-	535,420	189,006	0.009822	486,445,455	96%	1.5365877
235					2,580,908	60,424	-	2,259,206	261,278	0.00763	506,106,199	97%	3.8020665
236					4,702,451	23,738	-	4,329,967	348,746	0.002261	525,352,390	97%	4.3579544
237					10,200,038	70,716	-	9,673,153	456,169	0.000791	620,240,191	97%	3.3327664
238					23,060,398	77,190	-	22,360,593	622,615	0.000231	723,919,443	97%	1.7947752
239					75,532	-	-	26,265	49,268	0	723,919,444	97%	0.0279142
240					178,228	-	-	101,202	77,026	0	723,919,445	98%	0.210749
241					453,355	14,442	-	332,346	106,567	0	723,919,446	99%	0.8352468
242					922,649	43,658	-	729,643	149,348	0	723,919,447	100%	1.892811
243					2,395,417	324,198	-	1,870,666	200,554	0	723,919,448	100%	2.428467
244					5,781,302	929,932	-	4,575,499	275,871	0	723,919,449	100%	1.907213
245					15,109,727	4,855,998	-	9,879,977	373,753	0	723,919,450	100%	0.9941948

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs
1	1	2016	0	0	1012.28	0	295300.59	70.01	16600	43.7	0	80158.86
2	2	2016	0.12	0	1549.73	0	295300.91	106.73	16600	93.38	0	116144.3
3	3	2016	0.19	0	2152.52	0	295304.84	160.98	16600	164.13	0	162764.22
4	4	2016	1.52	0	3739.81	0	295302.38	327.32	16600	378.82	0	234503.21
5	5	2016	1.75	0	4671.16	0	295297.47	476.71	16600	440.48	0	305113.63
6	6	2016	6.23	0	6970.1	0	295303.72	988.56	16600	1066.22	0	413111.12
7	7	2016	8.15	0	10055.06	0	295299.59	2166.76	16600	1578.73	0	562935.44
8	8	2016	0	0	863.68	0	296220.66	57.79	16600	54	0	105746.46
9	9	2016	0	0	1326.83	0	296217.66	94.99	16600	130.79	0	146878.41
10	10	2016	0.12	0	2067.07	0	296223.19	148.02	16600	426.28	0	198335.63
11	11	2016	0.57	0	3112.13	0	296220.44	258.46	16600	439.87	0	266727.98
12	12	2016	0.33	0	4172.56	0	296215.75	419.93	16600	823.76	0	334469.21
13	13	2016	6.02	0	6086.45	0	296018.47	823.73	16600	1378.48	0	438044.34
14	14	2016	8.78	0	8670.81	0	296216.97	1728.29	16600	2053.16	0	591895.38
15	15	2016	1.98	0	1963.64	0	295305.47	132.69	16600	80.06	0	179735.76
16	16	2016	1.01	0	3130.08	0	295302.84	213.11	16600	107.18	0	262914.87
17	17	2016	2.35	0	4710.42	0	295302.88	333.35	16600	221.36	0	351770.48
18	18	2016	14.78	0	6918.12	0	295303.72	589.52	16600	370.79	0	486503.27
19	19	2016	78.99	0	10236.15	0	295301.09	1142.55	16600	675.87	0	641806.04
20	20	2016	288.57	0	13701.13	0	295302.03	2255.79	16600	1093.27	0	834759.91
21	21	2016	1373.6	0	17682.06	0	295300.09	4742.54	16600	1632.21	0	1109309.9
22	22	2016	0	0	1108.95	0	295303.28	74.44	16600	47.13	0	103951.62
23	23	2016	0.4	0	1670.42	0	295304.81	109.09	16600	128.09	0	148212.06
24	24	2016	1.88	0	2385.64	0	295297.44	168.06	16600	251.05	0	200299.49
25	25	2016	6.3	0	3705.88	0	295305.03	327.55	16600	490.78	0	282821.05
26	26	2016	16.92	0	5368.8	0	295301.81	592.37	16600	776.15	0	381057.25
27	27	2016	76.72	0	7713.01	0	295299.69	1202.2	16600	1276.17	0	513833.71
28	28	2016	305.61	0	10276.86	0	295305.53	2450.06	16600	2150.74	0	682948.14
29	29	2016	0	0	919.34	0	295929.81	59.03	16600	556.04	0	90851.68
30	30	2016	0	0	1246.54	0	295927.66	84.85	16600	91.97	0	132620.23
31	31	2016	0	0	1537.76	0	295927.38	109.94	16600	164.63	0	173748.69
32	32	2016	0.87	0	2634.56	0	295929.91	220.01	16600	383.6	0	241052.07
33	33	2016	3.55	0	3814.59	0	295932.41	387.67	16600	652.54	0	328288.38
34	34	2016	7.51	0	5356.09	0	295930.09	758.84	16600	1215.4	0	425103.81
35	35	2016	25.09	0	7767.22	0	295931.56	1647.17	16600	1983.84	0	594100.65
36	36	2016	2.59	0	2895.01	0	295479.31	182.11	16600	93.46	0	177168.26
37	37	2016	2.56	0	4439.41	0	295482.19	283.04	16600	126.62	0	248091.09
38	38	2016	10.99	0	7040.61	0	295480.69	506.26	16600	314.02	0	346934.57
39	39	2016	10.57	0	9416.12	0	295483.25	806.97	16600	445.06	0	450404.29
40	40	2016	45.51	0	13254.33	0	295480.59	1556.22	16600	882.97	0	592402.48
41	41	2016	188.68	0	17159.93	0	295482.44	2867.85	16600	1498.21	0	758053.43
42	42	2016	508.3	0	21476.98	0	295482.25	5418.24	16600	2185.34	0	956735.97
43	43	2016	0.14	0	576.34	0	296013.88	42.95	16600	44.54	0	64992.19
44	44	2016	0	0	1161.96	0	296013.03	77.11	16600	107.47	0	98359.03
45	45	2016	0.99	0	1549.73	0	296011.75	115.87	16600	189.35	0	131819.96
46	46	2016	0.96	0	2365.16	0	296012.22	190.05	16600	358.18	0	189295.23
47	47	2016	5.53	0	3574.37	0	296013.44	371.22	16600	665.2	0	257813.73
48	48	2016	16.79	0	4630.47	0	296011.53	655.85	16600	740.32	0	347772.31
49	49	2016	79.53	0	6708.72	0	294904.69	1521.99	16600	1553.92	0	467610.6
50	50	2016	0.16	0	786.33	0	296814.22	53.73	16600	42.31	0	88265.05
51	51	2016	0	0	1125.45	0	296815.06	78.82	16600	103.35	0	122505.68
52	52	2016	1.53	0	1737.99	0	296817.69	124.16	16600	154.23	0	168332.51
53	53	2016	0.75	0	2364.71	0	296814.75	203.59	16600	347.53	0	220980.12
54	54	2016	10.52	0	3874.24	0	296813.97	398.2	16600	606.62	0	308575.02
55	55	2016	47.14	0	5267.21	0	296813.78	752.9	16600	700.94	0	401320.64
56	56	2016	216.7	0	6796.61	0	296814.25	1617.44	16600	1212.64	0	537887.38
57	57	2016	13.26	0	7749.6	0	295752.91	446.12	16600	134.61	0	298162.87
58	58	2016	29.03	0	12260.65	0	295759.59	751.24	16600	269.97	0	427813.24
59	59	2016	133.63	0	16129.78	0	295760.69	1299.42	16600	465.88	0	539524.01
60	60	2016	485.73	0	21891.91	0	295759.31	2805.22	16600	770.02	0	708719.31
61	61	2016	1735.67	0	26248.07	0	295761.44	5398.87	16600	1474.5	0	876348.87
62	62	2016	5585.62	0	29244.44	0	295755.91	8688.17	16600	2069.36	0	1101913.5
63	63	2016	13443.92	0	29664.64	0	295757.06	12208.21	16600	2484.83	0	1365823
64	64	2016	0	0	814.66	0	295299.5	50.77	16600	72.58	0	75024.86
65	65	2016	0.36	0	1249.8	0	295300.22	81	16600	94.15	0	110222.3
66	66	2016	1.62	0	1841.76	0	295300.97	130.39	16600	249.95	0	146351.54
67	67	2016	4.41	0	2896.97	0	295302.31	249.54	16600	606.91	0	210965.38
68	68	2016	7.47	0	3696.42	0	295302.62	375.62	16600	550.6	0	280088.11
69	69	2016	23.51	0	5208.51	0	295299.34	719.81	16600	1084.86	0	369306.77
70	70	2016	99	0	7306.72	0	295302.25	1550.36	16600	1715.16	0	494695.53
71	71	2016	0.38	0	395	0	295932.41	27.46	16600	141.24	0	46753.98
72	72	2016	0	0	534.96	0	295931.59	41.7	16600	60.34	0	72691.51
73	73	2016	0.27	0	974.78	0	295931.62	73.83	16600	235.95	0	101205.1
74	74	2016	2.63	0	1638.17	0	295930.34	142.32	16600	447.35	0	143428.96
75	75	2016	0.7	0	2201.44	0	295930.56	212.32	16600	358.81	0	199944.72
76	76	2016	5.22	0	3298.93	0	295929.53	452.77	16600	1239.41	0	272370.95
77	77	2016	3	0	4576.61	0	295930.25	936.19	16600	1420.97	0	384409.2
78	78	2016	0	0	2401.56	0	295849.72	132.85	16600	71.84	0	147155.92
79	79	2016	2.17	0	3052.82	0	295845.41	188.03	16600	152.98	0	191052.43
80	80	2016	1.39	0	4825.95	0	295845.97	334.96	16600	501.06	0	267332.03
81	81	2016	1.85	0	6543.85	0	295850.59	525.31	16600	564.28	0	344336.8
82	82	2016	2.93	0	8886.02	0	295843.47	958.83	16600	1035.63	0	445512.13
83	83	2016	6.59	0	12679.74	0	295843	1716.21	16600	1715.26	0	590036.31
84	84	2016	9.67	0	16714.51	0	295846.31	3352.29	16600	2756.77	0	774991.66
85	85	2016	0.04	0	1537.38	0	296563	99.87	16600	56.37	0	120022.1
86	86	2016	0	0	2317.52	0	296560.25	156.23	16600	112.75	0	169112.73
87	87	2016	0.02	0	3753.87	0	296563.81	257.41	16600	168.75	0	239108.89
88	88	2016	2.08	0	5228.74	0	296563.81	445.68	16600	385.78	0	303758.59
89	89	2016	3.09	0	7215.73	0	296562.59	765.12	16600	758.31	0	405092.86
90	90	2016	19.28	0	9808.57	0	296561.34	1371.63	16600	1034.79	0	537713.46
91	91	2016	47.69	0	14627.58	0	296562.34	3194.24	16600	1991.98	0	733591.06
92	92	2016	14.4	0	4745.26	0	296984.41	301.38	16600	231.62	0	218296.35
93	93	2016	6.06	0	7157.53	0	296981.81	457.31	16600	141.18	0	313968.51

No	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
1	0.000642	1975 Hourly	2016	-4.76	400	0	0	28.39992	51.461988
2	0.002618	1975 Hourly	2016	-3.05	400	5.215056	0	378.8607	304.06578
3	0.006532	1975 Hourly	2016	-1.53	400	20.601928	0	2307.7106	1063.1759
4	0.008986	1975 Hourly	2016	0	400	226.734752	0	12730.599	2107.2458
5	0.006532	1975 Hourly	2016	1.53	400	189.7546	0	13439.933	1993.0022
6	0.002618	1975 Hourly	2016	3.05	400	270.748324	0	19456.086	1081.5249
7	0.000642	1975 Hourly	2016	4.76	400	86.85618	0	10191.252	361.40455
8	0.000642	1976 Hourly	2016	-4.76	400	0	0	29.942058	67.889227
9	0.002618	1976 Hourly	2016	-3.05	400	0	0	454.3175	384.52768
10	0.006532	1976 Hourly	2016	-1.53	400	13.011744	0	5755.6757	1295.5283
11	0.008986	1976 Hourly	2016	0	400	85.025532	0	12301.229	2396.8176
12	0.006532	1976 Hourly	2016	1.53	400	35.782296	0	22451.712	2184.7529
13	0.002618	1976 Hourly	2016	3.05	400	261.621976	0	21965.15	1146.8001
14	0.000642	1976 Hourly	2016	4.76	400	93.570216	0	11429.244	379.99683
15	0.000642	1977 Hourly	2016	-4.76	400	21.101256	0	100.92819	115.39036
16	0.002618	1977 Hourly	2016	-3.05	400	43.893388	0	878.29181	688.31113
17	0.006532	1977 Hourly	2016	-1.53	400	254.81332	0	6810.9071	2297.7648
18	0.008986	1977 Hourly	2016	0	400	2204.697128	0	23050.615	4371.7184
19	0.006532	1977 Hourly	2016	1.53	400	8564.980488	0	45190.379	4192.2771
20	0.002618	1977 Hourly	2016	3.05	400	12540.90592	0	39215.112	2185.4014
21	0.000642	1977 Hourly	2016	4.76	400	14638.72992	0	18528.656	712.17695
22	0.000642	1978 Hourly	2016	-4.76	400	0	0	33.55401	66.73694
23	0.002618	1978 Hourly	2016	-3.05	400	17.38352	0	560.15801	388.01917
24	0.006532	1978 Hourly	2016	-1.53	400	203.850656	0	3912.1123	1308.3563
25	0.008986	1978 Hourly	2016	0	400	939.75588	0	16343.483	2541.43
26	0.006532	1978 Hourly	2016	1.53	400	1834.655904	0	27218.806	2489.066
27	0.002618	1978 Hourly	2016	3.05	400	3334.159136	0	25769.267	1345.2167
28	0.000642	1978 Hourly	2016	4.76	400	3256.946892	0	14190.032	438.45271
29	0.000642	1979 Hourly	2016	-4.76	400	0	0	328.18386	58.326779
30	0.002618	1979 Hourly	2016	-3.05	400	0	0	300.13873	347.19976
31	0.006532	1979 Hourly	2016	-1.53	400	0	0	1653.6505	1134.9264
32	0.008986	1979 Hourly	2016	0	400	129.775812	0	9081.4063	2166.0939
33	0.006532	1979 Hourly	2016	1.53	400	384.93076	0	16259.275	2144.3797
34	0.002618	1979 Hourly	2016	3.05	400	326.375588	0	17042.635	1112.9218
35	0.000642	1979 Hourly	2016	4.76	400	267.389148	0	9892.5277	381.41262
36	0.000642	1980 Hourly	2016	-4.76	400	27.602148	0	173.70442	113.74202
37	0.002618	1980 Hourly	2016	-3.05	400	111.254528	0	1471.6252	649.50247
38	0.006532	1980 Hourly	2016	-1.53	400	1191.658888	0	14441.549	2266.1766
39	0.008986	1980 Hourly	2016	0	400	1576.701532	0	37657.975	4047.3329
40	0.006532	1980 Hourly	2016	1.53	400	4934.703912	0	76445.144	3869.573
41	0.002618	1980 Hourly	2016	3.05	400	8199.806384	0	67306.63	1984.5839
42	0.000642	1980 Hourly	2016	4.76	400	5417.05476	0	30131.951	614.22449
43	0.000642	1981 Hourly	2016	-4.76	400	1.492008	0	16.480258	41.724986
44	0.002618	1981 Hourly	2016	-3.05	400	0	0	326.92495	257.50394
45	0.006532	1981 Hourly	2016	-1.53	400	107.346888	0	1916.7591	861.04798
46	0.008986	1981 Hourly	2016	0	400	143.200896	0	7612.5169	1701.0069
47	0.006532	1981 Hourly	2016	1.53	400	599.624536	0	15530.946	1684.0393
48	0.002618	1981 Hourly	2016	3.05	400	729.673252	0	8974.5814	910.46791
49	0.000642	1981 Hourly	2016	4.76	400	847.567116	0	6692.7307	300.20601
50	0.000642	1982 Hourly	2016	-4.76	400	1.705152	0	21.359098	56.666162
51	0.002618	1982 Hourly	2016	-3.05	400	0	0	304.51334	320.71987
52	0.006532	1982 Hourly	2016	-1.53	400	165.899736	0	1750.9039	1099.548
53	0.008986	1982 Hourly	2016	0	400	111.8757	0	7384.7637	1985.7274
54	0.006532	1982 Hourly	2016	1.53	400	1140.696224	0	15351.451	2015.612
55	0.002618	1982 Hourly	2016	3.05	400	2048.647832	0	9665.6512	1050.6574
56	0.000642	1982 Hourly	2016	4.76	400	2309.41524	0	5291.262	345.3237
57	0.000642	1983 Hourly	2016	-4.76	400	141.314472	0	669.71749	191.42056
58	0.002618	1983 Hourly	2016	-3.05	400	1261.608964	0	8665.6001	1120.0151
59	0.006532	1983 Hourly	2016	-1.53	400	14489.66126	0	49084.988	3524.1708
60	0.008986	1983 Hourly	2016	0	400	72455.17835	0	151478.88	6368.5517
61	0.006532	1983 Hourly	2016	1.53	400	188200.7809	0	252806.55	5724.3108
62	0.002618	1983 Hourly	2016	3.05	400	242744.3425	0	158434.22	2884.8096
63	0.000642	1983 Hourly	2016	4.76	400	143274.5442	0	47322.839	876.85839
64	0.000642	1984 Hourly	2016	-4.76	400	0	0	37.960191	48.16596
65	0.002618	1984 Hourly	2016	-3.05	400	15.645168	0	308.05658	288.56198
66	0.006532	1984 Hourly	2016	-1.53	400	175.658544	0	3006.9926	955.96826
67	0.008986	1984 Hourly	2016	0	400	657.829116	0	15799.186	1895.7349
68	0.006532	1984 Hourly	2016	1.53	400	809.981064	0	13294.246	1829.5355
69	0.002618	1984 Hourly	2016	3.05	400	1021.716388	0	14793.02	966.84512
70	0.000642	1984 Hourly	2016	4.76	400	1055.0628	0	8045.6685	317.59453
71	0.000642	1985 Hourly	2016	-4.76	400	4.049736	0	35.817052	30.016055
72	0.002618	1985 Hourly	2016	-3.05	400	0	0	84.507695	190.30637
73	0.006532	1985 Hourly	2016	-1.53	400	29.276424	0	1502.3557	661.07171
74	0.008986	1985 Hourly	2016	0	400	392.310788	0	6585.2585	1288.8526
75	0.006532	1985 Hourly	2016	1.53	400	75.90184	0	5159.6182	1306.0389
76	0.002618	1985 Hourly	2016	3.05	400	226.854936	0	10704.287	713.06715
77	0.000642	1985 Hourly	2016	4.76	400	31.9716	0	4175.0708	246.79071
78	0.000642	1986 Hourly	2016	-4.76	400	0	0	110.76302	94.474101
79	0.002618	1986 Hourly	2016	-3.05	400	94.305596	0	1222.6594	500.17526
80	0.006532	1986 Hourly	2016	-1.53	400	150.719368	0	15794.967	1746.2128
81	0.008986	1986 Hourly	2016	0	400	275.96006	0	33181.377	3094.2105
82	0.006532	1986 Hourly	2016	1.53	400	317.703416	0	60111.572	2910.0852
83	0.002618	1986 Hourly	2016	3.05	400	286.393492	0	56939.015	1544.7151
84	0.000642	1986 Hourly	2016	4.76	400	103.055124	0	29582.114	497.54465
85	0.000642	1987 Hourly	2016	-4.76	400	0.426288	0	55.637075	77.054188
86	0.002618	1987 Hourly	2016	-3.05	400	0	0	684.08439	442.73713
87	0.006532	1987 Hourly	2016	-1.53	400	2.168624	0	4137.7971	1561.8593
88	0.008986	1987 Hourly	2016	0	400	310.268608	0	18126.05	2729.5747
89	0.006532	1987 Hourly	2016	1.53	400	335.052408	0	35741.538	2646.0666
90	0.002618	1987 Hourly	2016	3.05	400	837.885664	0	26572.203	1407.7338
91	0.000642	1987 Hourly	2016	4.76	400	508.241868	0	18706.498	470.96546
92	0.000642	1988 Hourly	2016	-4.76	400	153.46368	0	705.62035	140.14626
93	0.002618	1988 Hourly	2016	-3.05	400	263.360328	0	2645.4892	821.96956

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
1	**332**	**5,098**	**-**	**1,426**	124,395	-	-	44,237	80,159	0.001909	109,022	0
2		802.91			262,850	1,992	-	144,714	116,144	0.005927	120,218	1%
3					519,211	3,154	-	353,293	162,764	0.009822	143,365	2%
4					1,676,450	25,232	-	1,416,715	234,503	0.00763	143,920	3%
5					2,391,716	29,050	-	2,057,553	305,114	0.002261	188,646	3%
6					7,948,189	103,418	-	7,431,660	413,111	0.000791	197,708	3%
7					16,572,450	135,290	-	15,874,225	562,935	0.000231	203,528	3%
8					152,385	-	-	46,639	105,746	0.001909	209,426	3%
9					320,415	-	-	173,536	146,878	0.005927	214,991	4%
10					1,081,478	1,992	-	881,151	198,336	0.009822	224,473	5%
11					1,645,123	9,462	-	1,368,933	266,728	0.00763	228,248	5%
12					3,777,135	5,478	-	3,437,188	334,469	0.002261	229,283	6%
13					8,928,026	99,932	-	8,390,050	438,044	0.000791	242,500	6%
14					18,540,204	145,748	-	17,802,560	591,895	0.000231	250,277	6%
15					369,813	32,868	-	157,209	179,736	0.001909	277,692	6%
16					615,163	16,766	-	335,482	262,915	0.005927	291,005	6%
17					1,433,479	39,010	-	1,042,699	351,770	0.009822	353,134	7%
18					3,297,021	245,348	-	2,565,170	486,503	0.00763	355,667	8%
19					8,871,347	1,311,234	-	6,918,307	641,806	0.002261	380,649	8%
20					20,604,056	4,790,262	-	14,979,034	834,760	0.000791	425,126	9%
21					52,771,905	22,801,760	-	28,860,835	1,109,310	0.000231	443,005	9%
22					156,216	-	-	52,265	103,952	0.001909	459,794	9%
23					368,816	6,640	-	213,964	148,212	0.005927	464,875	9%
24					830,422	31,208	-	598,915	200,299	0.009822	478,024	10%
25					2,206,173	104,580	-	1,818,772	282,821	0.00763	527,816	11%
26					4,828,923	280,872	-	4,166,994	381,057	0.002261	528,488	11%
27					11,630,498	1,273,552	-	9,843,112	513,834	0.000791	657,945	11%
28					27,858,928	5,073,126	-	22,102,854	682,948	0.000231	686,032	11%
29					602,041	-	-	511,190	90,852	0.001909	704,430	12%
30					247,265	-	-	114,644	132,620	0.005927	722,238	12%
31					426,910	-	-	253,161	173,749	0.009822	733,829	13%
32					1,266,111	14,442	-	1,010,617	241,052	0.00763	741,486	14%
33					2,876,391	58,930	-	2,489,173	328,288	0.002261	747,370	14%
34					7,059,562	124,666	-	6,509,792	425,104	0.000791	771,253	14%
35					16,419,516	416,494	-	15,408,922	594,101	0.000231	773,594	14%
36					490,730	42,994	-	270,568	177,168	0.001909	779,958	14%
37					852,705	42,496	-	562,118	248,091	0.005927	828,854	15%
38					2,740,261	182,434	-	2,210,892	346,935	0.009822	872,140	16%
39					4,816,605	175,462	-	4,190,738	450,404	0.00763	902,862	17%
40					13,051,044	755,466	-	11,703,176	592,402	0.002261	943,531	17%
41					29,599,320	3,132,088	-	25,709,179	758,053	0.000791	999,497	17%
42					56,329,019	8,437,780	-	46,934,503	956,736	0.000231	1,109,237	17%
43					92,986	2,324	-	25,670	64,992	0.001909	1,132,014	17%
44					223,235	-	-	124,876	98,359	0.005927	1,192,000	18%
45					441,695	16,434	-	293,441	131,820	0.009822	1,193,734	19%
46					1,052,384	15,936	-	847,153	189,295	0.00763	1,245,870	20%
47					2,727,283	91,798	-	2,377,671	257,814	0.002261	1,320,162	20%
48					4,054,516	278,714	-	3,428,030	347,772	0.000791	1,350,031	20%
49					12,212,623	1,320,198	-	10,424,814	467,611	0.000231	1,354,764	20%
50					124,191	2,656	-	33,270	88,265	0.001909	1,356,709	20%
51					238,821	-	-	116,315	122,506	0.005927	1,378,640	21%
52					461,781	25,398	-	268,050	168,333	0.009822	1,421,904	22%
53					1,055,238	12,450	-	821,808	220,980	0.00763	1,676,255	23%
54					2,833,398	174,632	-	2,350,191	308,575	0.002261	1,729,401	23%
55					4,875,843	782,524	-	3,691,998	401,321	0.000791	1,742,479	23%
56					12,376,949	3,597,220	-	8,241,841	537,887	0.000231	1,850,406	23%
57					1,561,453	220,116	-	1,043,174	298,163	0.001909	1,941,428	23%
58					4,219,719	481,898	-	3,310,008	427,813	0.005927	2,036,736	24%
59					10,272,324	2,218,258	-	7,514,542	539,524	0.009822	2,041,425	25%
60					25,629,046	8,063,118	-	16,857,209	708,719	0.00763	2,092,130	25%
61					68,391,250	28,812,122	-	38,702,779	876,349	0.002261	2,188,714	26%
62					154,340,480	92,721,292	-	60,517,274	1,101,914	0.000791	2,195,207	26%
63					298,246,482	223,169,072	-	73,711,587	1,365,823	0.000231	2,227,632	26%
64					134,153	-	-	59,128	75,025	0.001909	2,411,082	26%
65					233,867	5,976	-	117,669	110,222	0.005927	2,444,724	26%
66					633,591	26,892	-	460,348	146,352	0.009822	2,503,670	27%
67					2,042,371	73,206	-	1,758,200	210,965	0.00763	2,535,728	28%
68					2,439,339	124,002	-	2,035,249	280,088	0.002261	2,548,812	28%
69					6,410,077	390,266	-	5,650,504	369,307	0.000791	2,617,251	29%
70					14,670,289	1,643,400	-	12,532,194	494,696	0.000231	2,627,493	29%
71					108,852	6,308	-	55,790	46,754	0.001909	2,661,838	29%
72					104,971	-	-	32,279	72,692	0.005927	2,891,157	29%
73					335,686	4,482	-	229,999	101,205	0.009822	2,938,201	30%
74					919,922	43,658	-	732,835	143,429	0.00763	3,219,947	31%
75					1,001,463	11,620	-	789,899	199,945	0.002261	3,538,075	31%
76					4,447,750	86,652	-	4,088,727	272,371	0.000791	3,677,336	31%
77					6,937,435	49,800	-	6,503,226	384,409	0.000231	3,686,640	31%
78					319,684	-	-	172,528	147,156	0.001909	3,780,047	32%
79					694,095	36,022	-	467,020	191,052	0.005927	3,845,735	32%
80					2,708,497	23,074	-	2,418,091	267,332	0.009822	4,130,755	33%
81					4,067,610	30,710	-	3,692,564	344,337	0.00763	4,130,838	34%
82					9,696,779	48,638	-	9,202,629	445,512	0.002261	4,350,615	34%
83					22,448,481	109,394	-	21,749,051	590,036	0.000791	4,391,543	34%
84					47,013,573	160,522	-	46,078,060	774,992	0.000231	4,466,305	34%
85					207,348	664	-	86,662	120,022	0.001909	4,718,059	34%
86					430,413	-	-	261,300	169,113	0.005927	5,237,078	35%
87					872,906	332	-	633,466	239,109	0.009822	5,490,119	36%
88					2,355,430	34,528	-	2,017,143	303,759	0.00763	5,797,910	37%
89					5,928,147	51,294	-	5,471,760	405,093	0.002261	5,842,819	37%
90					11,007,572	320,048	-	10,149,810	537,713	0.000791	5,875,578	37%
91					30,663,092	791,654	-	29,137,847	733,591	0.000231	6,082,609	37%
92					1,556,433	239,040	-	1,099,097	218,296	0.001909	6,195,418	37%
93					1,425,065	100,596	-	1,010,500	313,969	0.005927	6,483,090	38%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
94	94	2016	25.39	0	10667.17	0	296980.72	731.5	16600	418.04	0	416701.67	0.006532	1988 Hourly	2016	-1.53	400	2753.068168	0	29128.172	2721.8953					5,297,479	421,474	-	4,459,304	416,702	0.009822	6,508,522	39%
95	95	2016	25.53	0	16178.66	0	296983.78	1383.95	16600	616.36	0	562596.71	0.008986	1988 Hourly	2016	0	400	3808.248828	0	89607.304	5055.494					10,958,274	423,798	-	9,971,879	562,597	0.00763	6,863,782	40%
96	96	2016	96.74	0	21077.96	0	296983.59	2458.47	16600	982.1	0	708331.34	0.006532	1988 Hourly	2016	1.53	400	10489.63429	0	135216.74	4626.8203					23,014,880	1,605,884	-	20,700,665	708,331	0.002261	6,910,469	40%
97	97	2016	294.11	0	26840.55	0	296982.91	4520.81	16600	1508.91	0	894833.24	0.002618	1988 Hourly	2016	3.05	400	12781.66767	0	106028.93	2342.6734					46,277,034	4,882,226	-	40,499,974	894,833	0.000791	7,038,401	40%
98	98	2016	1011.79	0	35479.95	0	296984.59	9138.7	16600	2681.28	0	1169855	0.000642	1988 Hourly	2016	4.76	400	10782.84839	0	61074.539	751.04688					113,097,249	16,795,714	-	95,131,680	1,169,855	0.000231	7,272,700	40%
99	99	2016	0	0	728.58	0	295300.84	52.43	16600	59.05	0	74123.81	0.000642	1989 Hourly	2016	-4.76	400	0	0	27.620541	47.587486					117,146	-	-	43,023	74,124	0.001909	7,775,271	40%
100	100	2016	0	0	1021.64	0	295304.16	77.45	16600	77.21	0	107040.74	0.002618	1989 Hourly	2016	-3.05	400	0	0	206.51	280.23266					185,922	-	-	78,881	107,041	0.005927	7,833,435	41%
101	101	2016	1.76	0	1785.96	0	295302.44	135.28	16600	199.43	0	152828.69	0.006532	1989 Hourly	2016	-1.53	400	190.838912	0	2326.5286	998.277					538,219	29,216	-	356,174	152,829	0.009822	7,999,972	42%
102	102	2016	3.16	0	2735.68	0	295303.84	242.66	16600	435.42	0	203030.5	0.008986	1989 Hourly	2016	0	400	471.369616	0	10703.852	1824.4321					1,446,656	52,456	-	1,191,170	203,031	0.00763	8,045,866	43%
103	103	2016	4.82	0	4293.48	0	295302.22	442.8	16600	562.48	0	297035.26	0.006532	1989 Hourly	2016	1.53	400	522.638384	0	15774.758	1940.2343					2,792,044	80,012	-	2,414,997	297,035	0.002261	8,163,169	43%
104	104	2016	2.51	0	5563.2	0	295303.94	774.96	16600	827.59	0	370463.94	0.002618	1989 Hourly	2016	3.05	400	109.081588	0	12053.399	969.87459					5,016,179	41,666	-	4,604,049	370,464	0.000791	8,231,151	43%
105	105	2016	11.73	0	8638.72	0	295301.22	1850.62	16600	1546.14	0	534089.99	0.000642	1989 Hourly	2016	4.76	400	125.008956	0	8574.9825	342.88577					14,085,479	194,718	-	13,356,671	534,090	0.000231	9,369,223	43%
106	106	2016	0.8	0	1685.77	0	295302.88	97.98	16600	76.64	0	84146.03	0.000642	1990 Hourly	2016	-4.76	400	8.52576	0	82.944739	54.021751					226,623	13,280	-	129,197	84,146	0.001909	9,397,053	43%
107	107	2016	1.15	0	2533.82	0	295301.53	160.53	16600	144.57	0	119265.94	0.002618	1990 Hourly	2016	-3.05	400	49.97762	0	959.01099	312.23823					504,670	19,090	-	366,314	119,266	0.005927	9,547,561	44%
108	108	2016	5.11	0	3935.64	0	295307.09	287.58	16600	387.07	0	167403.92	0.006532	1990 Hourly	2016	-1.53	400	554.083432	0	9950.6409	1093.4824					1,775,598	84,826	-	1,523,368	167,404	0.009822	9,655,956	45%
109	109	2016	19.9	0	5251.76	0	295304.62	467.81	16600	638.33	0	217954.97	0.008986	1990 Hourly	2016	0	400	2968.43524	0	30124.271	1958.5434					3,900,651	330,340	-	3,352,356	217,955	0.00763	9,754,034	45%
110	110	2016	50.52	0	7308.97	0	295300.5	890.57	16600	1066.2	0	275133.55	0.006532	1990 Hourly	2016	1.53	400	5477.944224	0	50902.725	1797.1723					8,906,589	838,632	-	7,792,824	275,134	0.002261	10,384,152	46%
111	111	2016	191.44	0	9190.57	0	295300.84	1685.26	16600	1750.42	0	354043.49	0.002618	1990 Hourly	2016	3.05	400	8319.752672	0	42116.702	926.88586					19,619,305	3,177,904	-	16,087,358	354,043	0.000791	10,576,179	46%
112	112	2016	577.31	0	12223.69	0	295302.69	3429.71	16600	2713.53	0	467390.8	0.000642	1990 Hourly	2016	4.76	400	6152.508132	0	21294.722	300.06489					43,220,086	9,583,346	-	33,169,350	467,391	0.000231	10,594,032	46%
113	113	2016	0	0	2778.59	0	296218.81	160.48	16600	81.24	0	172286.74	0.000642	1991 Hourly	2016	-4.76	400	0	0	144.92036	110.60809					398,019	-	-	225,733	172,287	0.001909	11,306,273	46%
114	114	2016	0.21	0	4125.06	0	296216.56	254.72	16600	155.19	0	241817.53	0.002618	1991 Hourly	2016	-3.05	400	9.126348	0	1675.96	633.07829					885,472	3,486	-	640,168	241,818	0.005927	11,548,795	46%
115	115	2016	1.48	0	5201.5	0	296215.94	367.88	16600	279.38	0	298304.26	0.006532	1991 Hourly	2016	-1.53	400	160.478176	0	9492.2702	1948.5234					1,776,067	24,568	-	1,453,195	298,304	0.009822	11,908,476	47%
116	116	2016	9.67	0	7706.64	0	296215.34	649.5	16600	578.03	0	405101.91	0.008986	1991 Hourly	2016	0	400	1442.450692	0	40029.657	3640.2458					5,020,293	160,522	-	4,454,669	405,102	0.00763	11,989,541	48%
117	117	2016	4.27	0	10771.48	0	296217.28	1152.77	16600	926.91	0	517600.3	0.006532	1991 Hourly	2016	1.53	400	463.001224	0	65216.746	3380.9652					10,572,675	70,882	-	9,984,193	517,600	0.002261	12,247,502	48%
118	118	2016	37.05	0	14064.03	0	296218.19	2033.04	16600	1362.54	0	669760.22	0.002618	1991 Hourly	2016	3.05	400	1610.14854	0	50168.219	1753.4323					20,447,594	615,030	-	19,162,803	669,760	0.000791	12,524,581	49%
119	119	2016	115.55	0	18561.44	0	296214.59	3973.98	16600	2460.58	0	849243.86	0.000642	1991 Hourly	2016	4.76	400	1231.43946	0	29321.365	545.21456					48,439,282	1,918,130	-	45,671,908	849,244	0.000231	13,887,491	49%
120	120	2016	0.35	0	456.76	0	295303.09	31.71	16600	44.03	0	45687.02	0.000642	1992 Hourly	2016	-4.76	400	3.73002	0	12.911354	29.331067					71,608	5,810	-	20,111	45,687	0.001909	15,002,594	49%
121	121	2016	0.08	0	648.23	0	295306.19	47.98	16600	108.57	0	67874.85	0.002618	1992 Hourly	2016	-3.05	400	3.476704	0	184.25047	177.69636					139,581	1,328	-	70,378	67,875	0.005927	15,279,847	49%
122	122	2016	0.67	0	1008.13	0	295304.56	75.13	16600	154.1	0	93171.43	0.006532	1992 Hourly	2016	-1.53	400	72.648904	0	1014.7647	608.59578					259,646	11,122	-	155,353	93,171	0.009822	15,736,127	50%
123	123	2016	0.96	0	1533.43	0	295303.47	128.86	16600	299.89	0	125700.64	0.008986	1992 Hourly	2016	0	400	143.200896	0	4132.3049	1129.546					601,497	15,936	-	459,860	125,701	0.00763	16,020,383	51%
124	124	2016	5.62	0	2252.78	0	295302.41	223.16	16600	488.73	0	172869.81	0.006532	1992 Hourly	2016	1.53	400	609.383344	0	7191.7396	1129.1856					1,367,163	93,292	-	1,101,001	172,870	0.002261	16,118,748	51%
125	125	2016	20.32	0	3015.72	0	295305	418.49	16600	1170.17	0	227969.2	0.002618	1992 Hourly	2016	3.05	400	883.082816	0	9238.6735	596.82337					4,094,186	337,312	-	3,528,905	227,969	0.000791	16,326,879	51%
126	126	2016	91.96	0	4558.25	0	295302.5	987.29	16600	1495.32	0	323563.42	0.000642	1992 Hourly	2016	4.76	400	980.036112	0	4375.8992	207.72772					8,666,142	1,526,536	-	6,816,042	323,563	0.000231	16,426,661	51%
127	127	2016	0	0	1958.94	0	296391.94	127.27	16600	43.17	0	133825.55	0.000642	1993 Hourly	2016	-4.76	400	0	0	54.292296	85.916003					218,393	-	-	84,567	133,826	0.001909	16,459,700	52%
128	128	2016	1.63	0	3187.91	0	296389.09	209.09	16600	144.66	0	184527.44	0.002618	1993 Hourly	2016	-3.05	400	70.837844	0	1207.3249	483.09284					672,749	27,058	-	461,163	184,527	0.005927	17,515,262	52%
129	129	2016	2.43	0	4294.78	0	296391.62	302.44	16600	177.57	0	253243.63	0.006532	1993 Hourly	2016	-1.53	400	263.487816	0	4981.4605	1654.1874					1,056,206	40,338	-	762,624	253,244	0.009822	18,203,651	53%
130	130	2016	8.49	0	6585.13	0	296389.81	581.4	16600	518.14	0	347248.08	0.008986	1993 Hourly	2016	0	400	1266.432924	0	30660.405	3120.3712					3,900,201	140,934	-	3,412,019	347,248	0.00763	18,469,509	54%
131	131	2016	15.7	0	9028.76	0	296387.91	980.5	16600	740.27	0	452904.93	0.006532	1993 Hourly	2016	1.53	400	1702.36984	0	43658.06	2958.375					7,397,245	260,620	-	6,683,720	452,905	0.002261	18,546,480	54%
132	132	2016	23.93	0	12171.02	0	296390.62	1811.79	16600	1100.14	0	576711	0.002618	1993 Hourly	2016	3.05	400	1039.969084	0	35054.564	1509.8294					14,363,775	397,238	-	13,389,826	576,711	0.000791	18,628,799	54%
133	133	2016	193.27	0	17557.28	0	296389.25	4085.2	16600	2238.27	0	794378.39	0.000642	1993 Hourly	2016	4.76	400	2059.717044	0	25229.273	509.99093					43,300,593	3,208,282	-	39,297,933	794,378	0.000231	19,954,558	54%
134	134	2016	0.25	0	1093.74	0	295753.44	74.42	16600	53.01	0	94133.64	0.000642	1994 Hourly	2016	-4.76	400	2.6643	0	37.222619	60.433797					156,263	4,150	-	57,979	94,134	0.001909	20,370,709	54%
135	135	2016	0.9	0	1776.4	0	295759.53	124.77	16600	126.97	0	136417.24	0.002618	1994 Hourly	2016	-3.05	400	39.11292	0	590.48861	357.14033					376,907	14,940	-	225,550	136,417	0.005927	20,655,614	55%
136	136	2016	0.05	0	2648.4	0	295750.97	192.97	16600	190.2	0	195922.37	0.006532	1994 Hourly	2016	-1.53	400	5.42156	0	3290.3361	1279.7649					700,478	830	-	503,726	195,922	0.009822	20,799,395	56%
137	137	2016	3.38	0	4095.73	0	295755	342.93	16600	391.28	0	264753.55	0.008986	1994 Hourly	2016	0	400	504.186488	0	14400.759	2379.0754					1,923,439	56,108	-	1,602,577	264,754	0.00763	21,647,400	57%
138	138	2016	8.15	0	5824.15	0	295756.94	606.26	16600	629.48	0	358130.92	0.006532	1994 Hourly	2016	1.53	400	883.71428	0	23947.527	2339.3112					4,159,607	135,290	-	3,666,186	358,131	0.002261	22,378,108	57%
139	139	2016	56.41	0	8266.94	0	295756.06	1187.08	16600	1011.86	0	484631.62	0.002618	1994 Hourly	2016	3.05	400	2451.510908	0	21899.533	1268.7656					9,786,024	936,406	-	8,364,986	484,632	0.000791	22,403,865	57%
140	140	2016	183.45	0	11673.68	0	295755.47	2678.97	16600	1611.84	0	653417.17	0.000642	1994 Hourly	2016	4.76	400	1955.06334	0	12079.939	419.49382					22,514,792	3,045,270	-	18,816,104	653,417	0.000231	22,468,085	57%
141	141	2016	0.91	0	3089.44	0	295485.34	189.32	16600	54.5	0	219500	0.000642	1995 Hourly	2016	-4.76	400	9.698052	0	108.09642	140.919					402,980	15,106	-	168,374	219,500	0.001909	22,712,944	57%
142	142	2016	7.88	0	5090.32	0	295483.91	317.88	16600	187.34	0	307695.5	0.002618	1995 Hourly	2016	-3.05	400	342.455344	0	2496.5786	805.54682					1,392,124	130,808	-	953,621	307,696	0.005927	23,215,464	58%
143	143	2016	12.44	0	7431.92	0	295481.44	509.33	16600	284.54	0	419706.93	0.006532	1995 Hourly	2016	-1.53	400	1348.884128	0	13813.08	2741.5257					2,740,889	206,504	-	2,114,679	419,707	0.009822	24,989,141	59%
144	144	2016	19.93	0	10555.58	0	295482.75	921.84	16600	602.3	0	543659.16	0.008986	1995 Hourly	2016	0	400	2972.910268	0	57129.626	4885.3212					7,232,123	330,838	-	6,357,626	543,659	0.00763	26,409,021	60%
145	145	2016	64.5	0	13980.16	0	295482.44	1624.79	16600	830.12	0	708157.27	0.006532	1995 Hourly	2016	1.53	400	6993.8124	0	75805.234	4625.6833					13,384,068	1,070,700	-	11,605,210	708,157	0.002261	27,007,798	60%
146	146	2016	228.95	0	17974.73	0	295484.03	3081.46	16600	1419.16	0	878607.87	0.002618	1995 Hourly	2016	3.05	400	9949.89226	0	66782.609	2300.1954					30,188,196	3,800,570	-	25,509,018	878,608	0.000791	27,051,835	60%
147	147	2016	948.32	0	23377.28	0	295481.59	6023.76	16600	2451.02	0	1140657.9	0.000642	1995 Hourly	2016	4.76	400	10106.4359	0	36785.432	732.3024					74,180,951	15,742,112	-	57,298,181	1,140,658	0.000231	27,877,290	60%
148	148	2016	0	0	726.88	0	295393.72	50.08	16600	44.73	0	72003.38	0.000642	1996 Hourly	2016	-4.76	400	0	0	20.873566	46.22617					104,517	-	-	32,513	72,003	0.001909	28,433,145	60%
149	149	2016	0.21	0	1083.79	0	295391.88	77.53	16600	86	0	103894.48	0.002618	1996 Hourly	2016	-3.05	400	9.126348	0	244.01315	271.99575					200,586	3,486	-	93,206	103,894	0.005927	29,053,865	61%
150	150	2016	0.81	0	1792.07	0	295390.94	133.37	16600	143.24	0	157628.86	0.006532	1996 Hourly	2016	-1.53	400	87.829272	0	1676.739	1029.6317					427,771	13,446	-	256,696	157,629	0.009822	32,023,523	62%
151	151	2016	1.66	0	2872.32	0	295389.16	241.03	16600	354.38	0	212856.26	0.008986	1996 Hourly	2016	0	400	247.618216	0	9146.7844	1912.7264					1,258,305	27,556	-	1,017,893	212,856	0.00763	32,060,835	63%
152	152	2016	4.41	0	4073.22	0	295389.97	421.92	16600	693.38	0	286994.74	0.006532	1996 Hourly	2016	1.53	400	478.181592	0	18448.258	1874.6496					3,184,490	73,206	-	2,824,289	286,995	0.002261	32,590,320	63%
153	153	2016	1.97	0	5867.96	0	295388.22	790.45	16600	936.31	0	394326.96	0.002618	1996 Hourly	2016	3.05	400	85.613836	0	14383.893	1032.348					5,921,259	32,702	-	5,494,230	394,327	0.000791	33,652,538	63%
154	154	2016	6.31	0	8728.39	0	295388.06	1848.14	16600	1418.24	0	540141.76	0.000642	1996 Hourly	2016	4.76	400	67.246932	0	7947.2871	346.77101					13,023,840	104,746	-	12,378,952	540,142	0.000231	34,405,644	63%
155	155	2016	0	0	1569.65	0	296243.53	102.14	16600	58.37	0	126235.2	0.000642	1997 Hourly	2016	-4.76	400	0	0	58.820342	81.042998					217,856	-	-	91,620	126,235	0.001909	34,493,339	63%
156	156	2016	0.15	0	2455.15	0	296242.19	162.34	16600	145.95	0	179800.19	0.002618	1997 Hourly	2016	-3.05	400	6.51882	0	938.1057	470.7169					540,619	2,490	-	358,329	179,800	0.005927	36,412,038	64%
157	157	2016	1.38	0	3396.63	0	296243.31	228.64	16600	171.26	0	243889.48	0.006532	1997 Hourly	2016	-1.53	400	149.635056	0	3799.7092	1593.0861					848,504	22,908	-	581,707	243,889	0.009822	36,677,631	65%
158	158	2016	0.67	0	5096.89	0	296245.03	421.48	16600	546.4	0	318103.17	0.008986	1997 Hourly	2016	0	400	99.942292	0	25025.477	2858.4751					3,114,166	11,122	-	2,784,941	318,103	0.00763	36,818,664	65%
159	159	2016	5.8	0	7231.12	0	296240.03	765.8	16600	706.75	0	413955.68	0.006532	1997 Hourly	2016	1.53	400	628.90096	0	33382.4	2703.9585					5,620,830	96,280	-	5,110,594	413,956	0.002261	37,461,556	66%
160	160	2016	18	0	10478.25	0	296245.62	1498.93	16600	1368.1	0	559608.74	0.002618	1997 Hourly	2016	3.05	400	782.2584	0	37529.799	1465.0557					15,193,703	298,800	-	14,335,294	559,609	0.000791	39,568,617	66%
161	161	2016	63.87	0	13084.55	0	296242.72	2877.76	16600	2010.51	0	697563.42	0.000642	1997 Hourly	2016	4.76	400	680.675364	0	16888.849	447.83572					28,064,424	1,060,242	-	26,306,619	697,563	0.000231	40,209,750	66%
162	162	2016	0	0	819.59	0	296283.31	60.68	16600	44.92	0	86001.86	0.000642	1998 Hourly	2016	-4.76	400	0	0	23.635861	55.213194					122,818	-	-	36,816	86,002	0.001909	40,332,589	66%
163	163	2016	0	0	1395.22	0	296279.28	100.56	16600	83.37	0	131294.54	0.002618	1998 Hourly	2016	-3.05	400	0	0	304.52443	343.72911					247,614	-	-	116,319	131,295	0.005927	40,705,017	66%
164	164	2016	0.43	0	2186.44	0	296280.16	155.9	16600	150.09	0	180300.04	0.006532	1998 Hourly	2016	-1.53	400	46.625416	0	2143.5593	1177.7199					515,601	7,138	-	328,163	180,300	0.009822	41,071,294	67%
165	165	2016	1.19	0	3262.59	0	296280.56	264.62	16600	304.79	0	241689.75	0.008986	1998 Hourly	2016	0	400	177.509444	0	8935.7216	2171.8241					1,255,849	19,754	-	994,405	241,690	0.00763	43,372,819	68%
166	166	2016	1.41	0	4667.01	0	296281.56	468.56	16600	448.27	0	330819.03	0.006532	1998 Hourly	2016	1.53	400	152.887992	0	13665.47	2160.9099					2,446,306	23,406	-	2,092,081	330,819	0.002261	44,232,870	68%
167	167	2016	3.29	0	6379.56	0	296281.72	904.18	16600	895.11	0	435154.83	0.002618	1998 Hourly	2016	3.05	400	142.979452	0	14949.848	1139.2353					6,200,177	54,614	-	5,710,408	435,155	0.000791	44,528,449	69%
168	168	2016	17.58	0	9242.96	0	296281.88	2019.19	16600	1703.27	0	589143.67	0.000642	1998 Hourly	2016	4.76	400	187.353576	0	10107.171	378.23024					16,624,228	291,828	-	15,743,256	589,144	0.000231	46,582,851	69%
169	169	2016	2.61	0	5659.01	0	295301.84	323.54	16600	122.8	0	216053	0.000642	1999 Hourly	2016	-4.76	400	27.815292	0	446.14277	138.70603					954,305	43,326	-	694,926	216,053	0.001909	48,581,465	69%
170	170	2016	12.68	0	8688.26	0	295300.88	518.78	16600	220.18	0	302736.44	0.002618	1999 Hourly	2016	-3.05	400	551.057584	0	5008.1845	792.564					2,426,206	210,488	-	1,912,981	302,736	0.005927	51,426,739	69%
171	171	2016	87.7	0	11735.59	0	295300.56	895.75	16600	469.84	0	396861.35	0.006532	1999 Hourly	2016	-1.53	400	9509.41624	0	36016.466	2592.2983					7,366,531	1,455,820	-	5,513,850	396,861	0.009822	52,100,409	70%
172	172	2016	303.26	0	15495.71	0	295301	1763.77	16600	882.77	0	510432.69	0.008986	1999 Hourly	2016	0	400	45236.56638	0	122920.82	4586.7482					19,223,697	5,034,116	-	13,679,148	510,433	0.00763	52,502,618	71%
173	173	2016	876.37	0	19498	0	295302.53	3396.72	16600	1301.07	0	651700.59	0.006532	1999 Hourly	2016	1.53	400	95025.85074	0	165705.49	4256.9083					40,567,705	14,547,742	-	25,368,263	651,701	0.002261	53,171,077	71%
174	174	2016	2738.04	0	22073.16	0	295301.44	5616.82	16600	1783.49	0	799342.99	0.002618	1999 Hourly	2016	3.05	400	118991.9328	0	103063.49	2092.6799					85,618,067	45,451,464	-	39,367,260	799,343	0.000791	53,356,604	71%
175	175	2016	6944.67	0	23588.63	0	295302.94	8958.36	16600	2510.21	0	1017631.4	0.000642	1999 Hourly	2016	4.76	400	74010.73712	0	38014.37	653.31933					175,511,568	115,281,522	-	59,212,415	1,017,631	0.000231	54,249,263	71%
176	176	2016	0	0	584.93	0	295650.09	42.85	16600	33.49	0	71112.73	0.000642	2000 Hourly	2016	-4.76	400	0	0	12.576334	45.654373					90,702	-	-	19,589	71,113	0.001909	57,152,308	72%
177	177	2016	0	0	971.18	0	295649.75	68.18	16600	75.61	0	103437.14	0.002618	2000 Hourly	2016	-3.05	400	0	0	192.24215	270.79843					176,868	-	-	73,431	103,437	0.005927	58,924,586	72%
178	178	2016	0.63	0	1387.93	0	295652.41	108.62	16600	199.43	0	141392.56	0.006532	2000 Hourly	2016	-1.53	400	68.311656	0	1808.0242	923.5762					428,645	10,458	-	276,795	141,393	0.009822	63,532,658	73%
179	179	2016	0	0	2094.36	0	295648.44	175.49	16600	325.17	0	198269.3	0.008986	2000 Hourly	2016	0	400	0	0	6119.673	1781.6479					879,292	-	-	681,023	198,269	0.00763	66,106,372	74%
180	180	2016	6.96	0	3335.05	0	295652.44	340.72	16600	697.34	0	273479.59	0.006532	2000 Hourly	2016	1.53	400	754.681152	0	15191.236	1786.3687					2,714,679	115,536	-	2,325,664	273,480	0.002261	68,333,884	74%
181	181	2016	12.06	0	4695.83	0	295654.41	632.3	16600	766.64	0	374985.4	0.002618	2000 Hourly	2016	3.05	400	524.113128	0	9424.8291	981.71178					4,175,193	200,196	-	3,600,011	374,985	0.000791	68,792,792	74%
182	182	2016	34.02	0	6401.02	0	295655.28	1323.63	16600	1336.84	0	487369.42	0.000642	2000 Hourly	2016	4.76	400	362.557944	0	5493.6836	312.89117					9,609,241	564,732	-	8,557,140	487,369	0.000231	69,786,060	74%
183	183	2016	0.03	0	1099.41	0	296597.41	82.15	16600	69.91	0	76826.71	0.000642	2001 Hourly	2016	-4.76	400	0.319716	0	49.343961	49.322748					154,184	498	-	76,860	76,827	0.001909	70,328,618	74%
184	184	2016	0.03	0	1675.98	0	296600.09	117.06	16600	78.33	0	112776.71	0.002618	2001 Hourly	2016	-3.05	400	1.303764	0	343.68977	295.24943					244,554	498	-	131,280	112,777	0.005927	70,406,660	75%
185	185	2016	1.23	0	2351.63	0	296598.09	173.06	16600	147.13	0	151987.35	0.006532	2001 Hourly	2016	-1.53	400	133.370376	0	2260.0414	992.78137					518,401	20,418	-	345,995	151,987	0.009822	72,044,117	76%
186	186	2016	0.17	0	3440.16	0	296599.59	273.91	16600	276.17	0	204981.4	0.008986	2001 Hourly	2016	0	400	25.358492	0	8537.3199	1841.9629					1,157,872	2,822	-	950,069	204,981	0.00763	72,195,618	77%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost
187	187	2016	1.26	0	5104.52	0	296598.84	504.78	16600	447.59	0
188	188	2016	6.29	0	6922.45	0	296596.84	948.01	16600	891.98	0
189	189	2016	7.56	0	9137.19	0	296600.44	1930.37	16600	1323.88	0
190	190	2016	0.18	0	2704.6	0	295302.41	182.51	16600	55.69	0
191	191	2016	2.3	0	4145.85	0	295300.69	271.43	16600	200.29	0
192	192	2016	3	0	6320.42	0	295303.84	444.69	16600	286.54	0
193	193	2016	10.25	0	8709.67	0	295301.41	750.34	16600	522.54	0
194	194	2016	29.25	0	12250.74	0	295302.59	1324.19	16600	923.96	0
195	195	2016	45.99	0	17155.94	0	295298.09	2595.04	16600	1248.2	0
196	196	2016	159.21	0	22314.87	0	295303.22	5181.47	16600	2279.44	0
197	197	2016	0	0	649.11	0	295949.62	50.11	16600	29.01	0
198	198	2016	0	0	1182.46	0	295949.38	85.93	16600	94.91	0
199	199	2016	0.1	0	1713.89	0	295949	124.2	16600	157.19	0
200	200	2016	0.64	0	2918.83	0	295948.44	234.36	16600	303.41	0
201	201	2016	5.03	0	4040.89	0	295952.03	416.98	16600	521.2	0
202	202	2016	15.45	0	5544.46	0	295950.41	785.06	16600	760.32	0
203	203	2016	106.65	0	8152.44	0	295951	1773.79	16600	1790.84	0
204	204	2016	0	0	232.42	0	295298.84	17.92	16600	38.68	0
205	205	2016	0	0	507.9	0	295301.16	36.27	16600	84.19	0
206	206	2016	0.3	0	749.89	0	295301.56	58.2	16600	141.4	0
207	207	2016	1.36	0	1171.9	0	295300.81	104.49	16600	441.77	0
208	208	2016	0.91	0	1691.12	0	295302.09	167.13	16600	361.59	0
209	209	2016	16.01	0	2425.1	0	295303.09	330.24	16600	790.98	0
210	210	2016	38.7	0	3304.62	0	295298.41	711.88	16600	1151.82	0
211	211	2016	0.66	0	2791.54	0	296224.16	181.03	16600	60.1	0
212	212	2016	1.98	0	4144.11	0	296225.94	270.17	16600	140.76	0
213	213	2016	3.17	0	6067.42	0	296222.81	415.63	16600	259.93	0
214	214	2016	24.63	0	8521.78	0	296223.88	737.32	16600	570.6	0
215	215	2016	53.69	0	11699.7	0	296225.97	1308.45	16600	827.63	0
216	216	2016	139.36	0	15390.37	0	296224.62	2479.75	16600	1353.8	0
217	217	2016	502.5	0	19173.08	0	296229.88	4653.68	16600	2197.79	0
218	218	2016	0.26	0	2070.92	0	295578.34	134.05	16600	59.17	0
219	219	2016	2.16	0	3607.07	0	295581.88	234.94	16600	141.02	0
220	220	2016	2.35	0	5063.6	0	295578.91	345.15	16600	210.59	0
221	221	2016	4.74	0	7101.04	0	295584.69	576.39	16600	385.46	0
222	222	2016	14.66	0	10699.22	0	295581.22	1173.57	16600	860.38	0
223	223	2016	41.43	0	14228.6	0	295579.44	2118.3	16600	1293.05	0
224	224	2016	194.47	0	18250.4	0	295582.5	4303.95	16600	2205.29	0
225	225	2016	1.75	0	6882.59	0	296275.09	392.88	16600	83.73	0
226	226	2016	4.71	0	9508.97	0	296277.94	589.7	16600	163.11	0
227	227	2016	12.9	0	13163.72	0	296272.75	894.5	16600	338.2	0
228	228	2016	141.8	0	18479.11	0	296274.5	1778.59	16600	669.1	0
229	229	2016	367.02	0	23582.19	0	296277.06	3236.8	16600	951.76	0
230	230	2016	1171.28	0	30413.35	0	296275.19	6297.33	16600	1620.2	0
231	231	2016	4539.04	0	35540.46	0	296277.22	10988.78	16600	2727.22	0
232	232	2016	0.07	0	1002.73	0	295693.59	69.75	16600	55.22	0
233	233	2016	0.88	0	1642.36	0	295695.97	110.85	16600	111.78	0
234	234	2016	0.46	0	2086.31	0	295693.22	162.34	16600	188.86	0
235	235	2016	0.29	0	3322.31	0	295695.03	274.85	16600	260.33	0
236	236	2016	1.18	0	5242.14	0	295697.31	542.38	16600	831.39	0
237	237	2016	4.23	0	7570.58	0	295695.03	1054.75	16600	1118.92	0
238	238	2016	6.99	0	9957.12	0	295694.94	2106.99	16600	1518.54	0
239	239	2016	0	0	617.75	0	296140.22	43.51	16600	216.82	0
240	240	2016	0.09	0	740.36	0	296141.34	54.95	16600	107.76	0
241	241	2016	0.24	0	1208.18	0	296140	87.94	16600	162.3	0
242	242	2016	2.66	0	1989.87	0	296141.72	164.72	16600	293.81	0
243	243	2016	12.02	0	2704.1	0	296140.97	286.08	16600	441.63	0
244	244	2016	40.18	0	3716.84	0	296143.66	540.08	16600	769.2	0
245	245	2016	239.3	0	5206.8	0	296142.97	1227.91	16600	1373.96	0

No	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
187	291058.97	0.006532	2001 Hourly	2016	1.53	400	136.623312	0	14923.87	1901.1972
188	377884.26	0.002618	2001 Hourly	2016	3.05	400	273.355852	0	16165.33	989.30099
189	514352.37	0.000642	2001 Hourly	2016	4.76	400	80.568432	0	7765.9807	330.21422
190	172085.6	0.000642	2002 Hourly	2016	-4.76	400	1.918296	0	96.69751	110.47896
191	238001.59	0.002618	2002 Hourly	2016	-3.05	400	99.95524	0	2173.9147	623.08816
192	322507.7	0.006532	2002 Hourly	2016	-1.53	400	325.2936	0	11829.799	2106.6203
193	427606.81	0.008986	2002 Hourly	2016	0	400	1528.9679	0	40896.643	3842.4748
194	570611.04	0.006532	2002 Hourly	2016	1.53	400	3171.6126	0	73936.973	3727.2313
195	744587.8	0.002618	2002 Hourly	2016	3.05	400	1998.670212	0	56061.968	1949.3309
196	972253.47	0.000642	2002 Hourly	2016	4.76	400	1696.732812	0	32655.591	624.18673
197	77504.6	0.000642	2003 Hourly	2016	-4.76	400	0	0	12.089297	49.757953
198	111841.67	0.002618	2003 Hourly	2016	-3.05	400	0	0	293.81102	292.80149
199	152028.28	0.006532	2003 Hourly	2016	-1.53	400	10.84312	0	1759.7624	993.04872
200	218340.23	0.008986	2003 Hourly	2016	0	400	95.467264	0	7958.0215	1962.0053
201	299956.2	0.006532	2003 Hourly	2016	1.53	400	545.408936	0	13757.123	1959.3139
202	392930.8	0.002618	2003 Hourly	2016	3.05	400	671.43846	0	11036.346	1028.6928
203	536384.63	0.000642	2003 Hourly	2016	4.76	400	1136.59038	0	9373.0174	344.35893
204	39976.64	0.000642	2004 Hourly	2016	-4.76	400	0	0	5.7715836	25.665003
205	63241.76	0.002618	2004 Hourly	2016	-3.05	400	0	0	111.94594	165.56693
206	92682.56	0.006532	2004 Hourly	2016	-1.53	400	32.52936	0	692.617	605.40248
207	123576.67	0.008986	2004 Hourly	2016	0	400	202.867936	0	4652.1444	1110.46
208	174234.1	0.006532	2004 Hourly	2016	1.53	400	98.672392	0	3994.2663	1138.0971
209	234090.08	0.002618	2004 Hourly	2016	3.05	400	695.775388	0	5021.8623	612.84783
210	307494.25	0.000642	2004 Hourly	2016	4.76	400	412.43364	0	2443.6622	197.41131
211	157924.21	0.000642	2005 Hourly	2016	-4.76	400	7.033752	0	107.70934	101.38734
212	220071.68	0.002618	2005 Hourly	2016	-3.05	400	86.048424	0	1527.1446	576.14766
213	296881.91	0.006532	2005 Hourly	2016	-1.53	400	343.726904	0	10301.646	1939.2326
214	384732.28	0.008986	2005 Hourly	2016	0	400	3673.997988	0	43694.674	3457.2043
215	518393.85	0.006532	2005 Hourly	2016	1.53	400	5821.671128	0	63249.504	3386.1486
216	660786.85	0.002618	2005 Hourly	2016	3.05	400	6056.418368	0	54547.294	1729.94
217	850145.11	0.000642	2005 Hourly	2016	4.76	400	5355.243	0	27052.855	545.79316
218	131213.73	0.000642	2006 Hourly	2016	-4.76	400	2.770872	0	78.668328	84.239215
219	200033.01	0.002618	2006 Hourly	2016	-3.05	400	93.871008	0	1331.6955	523.68642
220	263162.85	0.006532	2006 Hourly	2016	-1.53	400	254.81332	0	6965.3559	1718.9797
221	344068.84	0.008986	2006 Hourly	2016	0	400	707.054424	0	24596.182	3091.8026
222	463659.09	0.006532	2006 Hourly	2016	1.53	400	1589.601392	0	60129.64	3028.6212
223	598846.74	0.002618	2006 Hourly	2016	3.05	400	1800.498084	0	48166.726	1567.7808
224	777371.73	0.000642	2006 Hourly	2016	4.76	400	2072.505684	0	25838.847	499.07265
225	286648.28	0.000642	2007 Hourly	2016	-4.76	400	18.6501	0	369.97129	184.0282
226	383544.59	0.002618	2007 Hourly	2016	-3.05	400	204.690948	0	4060.5392	1004.1197
227	509413.74	0.006532	2007 Hourly	2016	-1.53	400	1398.76248	0	29080.269	3327.4905
228	668810.12	0.008986	2007 Hourly	2016	0	400	21151.96568	0	111106.25	6009.9277
229	831480.19	0.006532	2007 Hourly	2016	1.53	400	39796.41902	0	146608.03	5431.2286
230	1056011.1	0.002618	2007 Hourly	2016	3.05	400	50902.42326	0	129003.81	2764.6371
231	1327189.3	0.000642	2007 Hourly	2016	4.76	400	48373.45709	0	62226.911	852.05552
232	92395.08	0.000642	2008 Hourly	2016	-4.76	400	0.746004	0	35.548022	59.317641
233	141819.12	0.002618	2008 Hourly	2016	-3.05	400	38.243744	0	480.6203	371.28246
234	186446.32	0.006532	2008 Hourly	2016	-1.53	400	49.878352	0	2573.7419	1217.8674
235	261847.94	0.008986	2008 Hourly	2016	0	400	43.258604	0	7771.9641	2352.9656
236	355793.99	0.006532	2008 Hourly	2016	1.53	400	127.948816	0	28468.172	2324.0463
237	488043.05	0.002618	2008 Hourly	2016	3.05	400	183.830724	0	22176.746	1277.6967
238	636879.47	0.000642	2008 Hourly	2016	4.76	400	74.493828	0	9707.223	408.87662
239	53652.42	0.000642	2009 Hourly	2016	-4.76	400	0	0	85.989836	34.444854
240	74500.18	0.002618	2009 Hourly	2016	-3.05	400	3.911292	0	208.86716	195.04147
241	107128.19	0.006532	2009 Hourly	2016	-1.53	400	26.023488	0	1280.8443	699.76134
242	155387.37	0.008986	2009 Hourly	2016	0	400	396.785816	0	5253.6083	1396.3109
243	207460.05	0.006532	2009 Hourly	2016	1.53	400	1303.343024	0	7800.5907	1355.129
244	277217.72	0.002618	2009 Hourly	2016	3.05	400	1746.174584	0	7484.8445	725.75599
245	387030.37	0.000642	2009 Hourly	2016	4.76	400	2550.26796	0	4592.8262	248.4735

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
187					2,596,707	20,916	-	2,284,732	291,059	0.002261	72,694,374	77%
188					6,656,985	104,414	-	6,174,687	377,884	0.000791	72,835,776	77%
189					12,736,391	125,496	-	12,096,543	514,352	0.000231	74,649,699	77%
190					325,693	2,988	-	150,619	172,086	0.001909	76,593,401	77%
191					1,106,554	38,180	-	830,372	238,002	0.005927	79,624,168	78%
192					2,183,361	49,800	-	1,811,053	322,508	0.009822	82,207,555	79%
193					5,148,908	170,150	-	4,551,151	427,607	0.00763	86,599,260	80%
194					12,375,355	485,550	-	11,319,194	570,611	0.002261	87,964,820	80%
195					22,922,066	763,434	-	21,414,044	744,588	0.000791	88,571,023	80%
196					54,480,547	2,642,886	-	50,865,407	972,253	0.000231	90,309,566	80%
197					96,335	-	-	18,831	77,505	0.001909	94,094,187	80%
198					224,069	-	-	112,227	111,842	0.005927	98,416,062	81%
199					423,095	1,660	-	269,406	152,028	0.009822	98,995,558	82%
200					1,114,566	10,624	-	885,602	218,340	0.00763	99,617,665	83%
201					2,489,566	83,498	-	2,106,112	299,956	0.002261	102,624,792	83%
202					4,864,965	256,470	-	4,215,564	392,931	0.000791	103,958,743	83%
203					16,906,490	1,770,390	-	14,599,716	536,385	0.000231	111,163,903	83%
204					48,967	-	-	8,990	39,977	0.001909	111,220,968	83%
205					106,002	-	-	42,760	63,242	0.005927	113,151,289	84%
206					203,697	4,980	-	106,034	92,683	0.009822	120,017,937	85%
207					663,863	22,576	-	517,710	123,577	0.00763	128,116,668	85%
208					800,832	15,106	-	611,492	174,234	0.002261	131,686,654	86%
209					2,418,062	265,766	-	1,918,206	234,090	0.000791	134,232,169	86%
210					4,756,242	642,420	-	3,806,327	307,494	0.000231	141,560,469	86%
211					336,652	10,956	-	167,772	157,924	0.001909	152,164,386	86%
212					836,265	32,868	-	583,325	220,072	0.005927	152,791,291	86%
213					1,926,608	52,622	-	1,577,104	296,882	0.009822	154,141,004	87%
214					5,656,118	408,858	-	4,862,528	384,732	0.00763	154,307,650	88%
215					11,092,671	891,254	-	9,683,023	518,394	0.002261	155,440,488	88%
216					23,809,646	2,313,376	-	20,835,483	660,787	0.000791	168,609,612	89%
217					51,330,049	8,341,500	-	42,138,403	850,145	0.000231	173,602,129	89%
218					258,066	4,316	-	122,536	131,214	0.001909	178,393,042	89%
219					744,558	35,856	-	508,669	200,033	0.005927	194,691,350	89%
220					1,368,516	39,010	-	1,066,344	263,163	0.009822	201,121,877	90%
221					3,159,920	78,684	-	2,737,167	344,069	0.00763	218,466,770	91%
222					9,912,410	243,356	-	9,205,395	463,659	0.002261	220,083,156	91%
223					19,684,876	687,738	-	18,398,291	598,847	0.000791	233,436,273	91%
224					44,252,998	3,228,202	-	40,247,425	777,372	0.000231	240,920,423	91%
225					891,978	29,050	-	576,279	286,648	0.001909	247,003,123	92%
226					2,012,739	78,186	-	1,551,008	383,545	0.005927	255,710,340	92%
227					5,175,524	214,140	-	4,451,970	509,414	0.009822	267,759,921	93%
228					15,387,063	2,353,880	-	12,364,373	668,810	0.00763	293,640,818	94%
229					29,368,597	6,092,532	-	22,444,585	831,480	0.002261	307,790,568	94%
230					69,774,969	19,443,248	-	49,275,710	1,056,011	0.000791	329,742,447	94%
231					173,601,907	75,348,064	-	96,926,653	1,327,189	0.000231	350,116,554	94%
232					148,928	1,162	-	55,371	92,395	0.001909	356,130,897	94%
233					340,010	14,608	-	183,583	141,819	0.005927	380,018,127	95%
234					588,103	7,636	-	394,021	186,446	0.009822	486,445,455	96%
235					1,131,559	4,814	-	864,897	261,848	0.00763	506,106,199	97%
236					4,733,645	19,588	-	4,358,263	355,794	0.002261	525,352,390	97%
237					9,029,134	70,218	-	8,470,873	488,043	0.000791	620,240,191	97%
238					15,873,198	116,034	-	15,120,285	636,879	0.000231	723,919,443	97%
239					187,593	-	-	133,941	53,652	0	723,919,444	97%
240					155,775	1,494	-	79,781	74,500	0	723,919,445	98%
241					307,200	3,984	-	196,088	107,128	0	723,919,446	99%
242					784,187	44,156	-	584,644	155,387	0	723,919,447	100%
243					1,601,204	199,532	-	1,194,212	207,460	0	723,919,448	100%
244					3,803,199	666,988	-	2,858,993	277,218	0	723,919,449	100%
245					11,513,345	3,972,380	-	7,153,935	387,030	0	723,919,450	100%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
1	1	2016	1.08	0	592.23	0	295300.59	45.45	16600	57.7	0	77641.9	0.000642	1975 Hourl	2016	-4.76	400	11.509776	0	21.938213	49.8461
2	2	2016	0.6	0	963.04	0	295300.91	72.36	16600	158.8	0	111212.49	0.002618	1975 Hourl	2016	-3.05	400	26.07528	0	400.37271	291.1543
3	3	2016	0.06	0	1728.86	0	295304.84	124.43	16600	140.03	0	168798.97	0.006532	1975 Hourl	2016	-1.53	400	6.505872	0	1581.3467	1102.5949
4	4	2016	5.37	0	2484.69	0	295302.38	212.38	16600	600.72	0	225625.31	0.008986	1975 Hourl	2016	0	400	801.030012	0	13412.53	2027.469
5	5	2016	1.06	0	3781.58	0	295297.47	397.79	16600	521.76	0	310619.07	0.006532	1975 Hourl	2016	1.53	400	114.937072	0	12888.14	2028.9638
6	6	2016	3.96	0	5147.83	0	295303.72	709.9	16600	850.92	0	410067.57	0.002618	1975 Hourl	2016	3.05	400	172.096848	0	11467.865	1073.5569
7	7	2016	6.8	0	6900.12	0	295299.59	1444.27	16600	1398.26	0	535915.53	0.000642	1975 Hourl	2016	4.76	400	72.46896	0	6194.1199	344.05777
8	8	2016	0.03	0	511.95	0	296220.66	37.09	16600	80.46	0	100880.53	0.000642	1976 Hourl	2016	-4.76	400	0.319716	0	26.444941	64.7653
9	9	2016	0.59	0	833.6	0	296217.66	63.47	16600	113.93	0	145131.12	0.002618	1976 Hourl	2016	-3.05	400	25.640692	0	248.63682	379.95327
10	10	2016	0.44	0	1393.17	0	296223.19	98.87	16600	280.49	0	192797.57	0.006532	1976 Hourl	2016	-1.53	400	47.709728	0	2552.5113	1259.3537
11	11	2016	0.38	0	2070.05	0	296220.44	172.02	16600	419.57	0	256922.22	0.008986	1976 Hourl	2016	0	400	56.683688	0	7804.6185	2308.7031
12	12	2016	0.29	0	2985.85	0	296215.75	297.45	16600	519.17	0	335093.08	0.006532	1976 Hourl	2016	1.53	400	31.445048	0	10125.67	2188.828
13	13	2016	0.09	0	4284.2	0	296018.47	559.87	16600	884.47	0	439647.02	0.002618	1976 Hourl	2016	3.05	400	3.911292	0	9920.247	1150.9959
14	14	2016	7.97	0	5815.13	0	296216.97	1140.87	16600	1828.24	0	562647.95	0.000642	1976 Hourl	2016	4.76	400	84.937884	0	6825.393	361.21998
15	15	2016	1.76	0	1420.89	0	295305.47	92.91	16600	59.84	0	182696.13	0.000642	1977 Hourl	2016	-4.76	400	18.756672	0	54.586729	117.29092
16	16	2016	0.56	0	2143.74	0	295302.84	146.46	16600	124.4	0	263573.74	0.002618	1977 Hourl	2016	-3.05	400	24.336928	0	698.17153	690.03605
17	17	2016	1.36	0	3513.1	0	295302.88	247.84	16600	183.67	0	361033.65	0.006532	1977 Hourl	2016	-1.53	400	147.466432	0	4214.78	2358.2718
18	18	2016	15.18	0	5057.28	0	295303.72	420.4	16600	370.63	0	488472.58	0.008986	1977 Hourl	2016	0	400	2264.364168	0	16843.176	4389.4146
19	19	2016	49.31	0	7302.1	0	295301.09	826.34	16600	646.43	0	639684.19	0.006532	1977 Hourl	2016	1.53	400	5346.742472	0	30832.977	4178.4171
20	20	2016	217.76	0	10695.45	0	295302.03	1727.54	16600	1051.22	0	842852.79	0.002618	1977 Hourl	2016	3.05	400	9463.588288	0	29434.883	2206.5886
21	21	2016	965.05	0	13549.19	0	295300.09	3685.12	16600	1604.12	0	1108017.4	0.000642	1977 Hourl	2016	4.76	400	10284.73086	0	13953.566	711.3472
22	22	2016	0.25	0	727.11	0	295303.28	48.38	16600	68.21	0	100696.82	0.000642	1978 Hourl	2016	-4.76	400	2.6643	0	31.840743	64.647358
23	23	2016	1.3	0	1159.21	0	295304.81	79.72	16600	132.32	0	149593.79	0.002618	1978 Hourl	2016	-3.05	400	56.49644	0	401.56629	391.63654
24	24	2016	0.62	0	1685.35	0	295297.44	129.63	16600	207.82	0	207697.3	0.006532	1978 Hourl	2016	-1.53	400	67.227344	0	2287.8293	1356.6788
25	25	2016	2.52	0	2677.42	0	295305.03	229.82	16600	453.91	0	288642.82	0.008986	1978 Hourl	2016	0	400	375.902352	0	10920.755	2593.7444
26	26	2016	18	0	3959.2	0	295301.81	442.79	16600	900.71	0	384854.1	0.006532	1978 Hourl	2016	1.53	400	1951.7616	0	23293.707	2513.867
27	27	2016	57.55	0	5033.51	0	295299.69	776.22	16600	1062.73	0	497451.81	0.002618	1978 Hourl	2016	3.05	400	2501.05394	0	14004.368	1302.3288
28	28	2016	209.01	0	7595.7	0	295305.53	1840.86	16600	1795.88	0	696212.82	0.000642	1978 Hourl	2016	4.76	400	2227.461372	0	8757.5	446.96863
29	29	2016	0.28	0	510.18	0	295929.81	36.2	16600	68.31	0	89934.31	0.000642	1979 Hourl	2016	-4.76	400	2.984016	0	22.373954	57.737827
30	30	2016	0.1	0	822.29	0	295927.66	57.19	16600	280.12	0	119165.89	0.002618	1979 Hourl	2016	-3.05	400	4.34588	0	603.02979	311.9763
31	31	2016	1.12	0	1261.1	0	295927.38	89.5	16600	508.14	0	175563.86	0.006532	1979 Hourl	2016	-1.53	400	121.442944	0	4185.8059	1146.7831
32	32	2016	0.02	0	1746.46	0	295929.91	149.85	16600	273.73	0	244395.39	0.008986	1979 Hourl	2016	0	400	2.983352	0	4295.8336	2196.137
33	33	2016	0.23	0	2738.93	0	295932.41	293.35	16600	705.59	0	326554.86	0.006532	1979 Hourl	2016	1.53	400	24.939176	0	12623.492	2133.0563
34	34	2016	2.39	0	3580.1	0	295930.09	492.42	16600	1072.77	0	424628.42	0.002618	1979 Hourl	2016	3.05	400	103.866532	0	10054.753	1111.6772
35	35	2016	10.79	0	5405.93	0	295931.56	1146.65	16600	1515.73	0	589059.94	0.000642	1979 Hourl	2016	4.76	400	114.991188	0	5260.5032	378.17648
36	36	2016	2.85	0	2060.87	0	295479.31	130.57	16600	228.48	0	169639.57	0.000642	1980 Hourl	2016	-4.76	400	30.37302	0	302.29698	108.9086
37	37	2016	0.48	0	3316.01	0	295482.19	211.68	16600	108.89	0	250650.02	0.002618	1980 Hourl	2016	-3.05	400	20.860224	0	945.3083	656.20175
38	38	2016	6.84	0	4610.44	0	295480.69	316.2	16600	208.44	0	327211.84	0.006532	1980 Hourl	2016	-1.53	400	741.669408	0	6277.2527	2137.3477
39	39	2016	8.96	0	6774.13	0	295483.25	569.58	16600	491.75	0	434715.23	0.008986	1980 Hourl	2016	0	400	1336.541696	0	29933.969	3906.3511
40	40	2016	49.02	0	9993.97	0	295480.59	1149.33	16600	885.68	0	583283.26	0.006532	1980 Hourl	2016	1.53	400	5315.297424	0	57817.732	3810.0063
41	41	2016	110.75	0	13149	0	295482.44	2106.07	16600	1287.76	0	746793.86	0.002618	1980 Hourl	2016	3.05	400	4813.0621	0	44329.956	1955.1063
42	42	2016	457.31	0	18031.89	0	295482.25	4523.6	16600	2402.53	0	985380.58	0.000642	1980 Hourl	2016	4.76	400	4873.644132	0	27812.825	632.61433
43	43	2016	0	0	299.83	0	296013.88	22.62	16600	38.12	0	56004.56	0.000642	1981 Hourl	2016	-4.76	400	0	0	7.3377516	35.954928
44	44	2016	0	0	694.68	0	296013.03	46.38	16600	86.83	0	93572.33	0.002618	1981 Hourl	2016	-3.05	400	0	0	157.91531	244.97236
45	45	2016	0	0	1107.44	0	296011.75	76.79	16600	132.95	0	134622	0.006532	1981 Hourl	2016	-1.53	400	0	0	961.73345	879.3509
46	46	2016	1.16	0	1607.27	0	296012.22	133.76	16600	393.64	0	190515.45	0.008986	1981 Hourl	2016	0	400	173.034416	0	5685.3143	1711.9718
47	47	2016	2.8	0	2372.57	0	296013.44	244.86	16600	720.33	0	258084.04	0.006532	1981 Hourl	2016	1.53	400	303.60736	0	11163.406	1685.8049
48	48	2016	10.08	0	3438.16	0	296011.53	458.62	16600	945.01	0	344655.78	0.002618	1981 Hourl	2016	3.05	400	438.064704	0	8506.1322	902.30883
49	49	2016	59.19	0	5269.17	0	294904.69	1197	16600	1239.7	0	481582.15	0.000642	1981 Hourl	2016	4.76	400	630.799668	0	4193.666	309.17574
50	50	2016	0	0	357.31	0	296814.22	28.18	16600	38.79	0	83718.12	0.000642	1982 Hourl	2016	-4.76	400	0	0	8.8981552	53.747033
51	51	2016	0	0	562.2	0	296815.06	47.22	16600	73.69	0	118471.59	0.002618	1982 Hourl	2016	-3.05	400	0	0	108.45986	310.15862
52	52	2016	0	0	1290.17	0	296817.69	93.06	16600	133.24	0	173772.32	0.006532	1982 Hourl	2016	-1.53	400	0	0	1122.8655	1135.0808
53	53	2016	1.2	0	1905.82	0	296814.75	159.24	16600	334.49	0	233777.38	0.008986	1982 Hourl	2016	0	400	179.00112	0	5728.3749	2100.7235
54	54	2016	3.9	0	2577.79	0	296813.97	253.57	16600	365.3	0	307663.36	0.006532	1982 Hourl	2016	1.53	400	422.88168	0	6150.9668	2009.6571
55	55	2016	27.21	0	3785.57	0	296813.78	530.03	16600	825.36	0	420077.73	0.002618	1982 Hourl	2016	3.05	400	1182.513948	0	8179.8312	1099.7635
56	56	2016	151.45	0	5131.01	0	296814.25	1256.66	16600	1192.87	0	550641.29	0.000642	1982 Hourl	2016	4.76	400	1614.03294	0	3929.4431	353.51171
57	57	2016	9.89	0	6069.04	0	295752.91	347.32	16600	124.03	0	295877.86	0.000642	1983 Hourl	2016	-4.76	400	105.399708	0	483.26103	189.95359
58	58	2016	21.22	0	9639.8	0	295759.59	598.96	16600	210.09	0	430400.29	0.002618	1983 Hourl	2016	-3.05	400	922.195736	0	5302.0406	1126.788
59	59	2016	97.04	0	13150.36	0	295760.69	1073.23	16600	474.61	0	545747.43	0.006532	1983 Hourl	2016	-1.53	400	10522.16365	0	40768.122	3564.8222
60	60	2016	413.5	0	17448.44	0	295759.31	2323.12	16600	736.85	0	707860.02	0.008986	1983 Hourl	2016	0	400	61680.8026	0	115531.95	6360.8301
61	61	2016	1248.17	0	21792.77	0	295761.44	4672.05	16600	1213.34	0	883609.37	0.006532	1983 Hourl	2016	1.53	400	135340.5709	0	172719.4	5771.7364
62	62	2016	4523.94	0	23272.36	0	295755.91	7615.07	16600	1840.95	0	1087886.3	0.002618	1983 Hourl	2016	3.05	400	196605.0037	0	112163.63	2848.0862
63	63	2016	11773.48	0	24130.27	0	295757.06	10997.97	16600	2425.55	0	1385778.6	0.000642	1983 Hourl	2016	4.76	400	125472.3311	0	37575.731	889.66984
64	64	2016	0	0	429.28	0	295299.5	30.21	16600	41.99	0	74009.07	0.000642	1984 Hourl	2016	-4.76	400	0	0	11.57235	47.513823
65	65	2016	0	0	906.94	0	295300.22	61.51	16600	252.01	0	109872.03	0.002618	1984 Hourl	2016	-3.05	400	0	0	598.36471	287.64497
66	66	2016	0	0	1251.23	0	295300.97	85.81	16600	121	0	151573.91	0.006532	1984 Hourl	2016	-1.53	400	0	0	988.93716	990.08078
67	67	2016	1.53	0	1752.89	0	295302.31	140.22	16600	223.29	0	210004.03	0.008986	1984 Hourl	2016	0	400	228.226428	0	3517.1456	1887.0962
68	68	2016	7.49	0	2625.02	0	295302.62	253.42	16600	537.64	0	275699.1	0.006532	1984 Hourl	2016	1.53	400	812.149688	0	9218.7145	1800.8665
69	69	2016	20.69	0	4030.22	0	295299.34	525.14	16600	1367.21	0	371748.47	0.002618	1984 Hourl	2016	3.05	400	899.162572	0	14425.591	973.23749
70	70	2016	90.84	0	5237.59	0	295302.25	1082.79	16600	1782.5	0	496036.84	0.000642	1984 Hourl	2016	4.76	400	968.100048	0	5993.7147	318.45565
71	71	2016	0	0	175.2	0	295932.41	14.37	16600	30.21	0	45995.36	0.000642	1985 Hourl	2016	-4.76	400	0	0	3.3979725	29.529021
72	72	2016	0	0	492.26	0	295931.59	34.12	16600	76.04	0	76319.77	0.002618	1985 Hourl	2016	-3.05	400	0	0	97.995537	199.80516
73	73	2016	0	0	634.34	0	295931.62	49.42	16600	237.19	0	103164.7	0.006532	1985 Hourl	2016	-1.53	400	0	0	982.79887	673.87182
74	74	2016	0.59	0	1128.97	0	295930.34	93.21	16600	269.17	0	147776.33	0.008986	1985 Hourl	2016	0	400	88.008884	0	2730.7093	1327.9181
75	75	2016	2.36	0	1678.13	0	295930.56	170.45	16600	604.92	0	203870.33	0.006532	1985 Hourl	2016	1.53	400	255.897632	0	6630.8579	1331.681
76	76	2016	1.52	0	2258.11	0	295929.53	299.45	16600	840.77	0	276540.72	0.002618	1985 Hourl	2016	3.05	400	66.057376	0	4970.4069	723.9836
77	77	2016	2.77	0	3375.77	0	295930.25	672.81	16600	1324.92	0	386901.11	0.000642	1985 Hourl	2016	4.76	400	29.520444	0	2871.4254	248.39051
78	78	2016	2.35	0	1591.64	0	295849.72	96.06	16600	171.26	0	133729.87	0.000642	1986 Hourl	2016	-4.76	400	25.04442	0	174.9991	85.854577
79	79	2016	0.18	0	2160.02	0	295845.41	133.54	16600	144.35	0	186761.04	0.002618	1986 Hourl	2016	-3.05	400	7.822584	0	816.28949	488.9404
80	80	2016	0.14	0	3075.3	0	295845.97	215.77	16600	210.49	0	254512.92	0.006532	1986 Hourl	2016	-1.53	400	15.180368	0	4228.2936	1662.4784
81	81	2016	0.25	0	4850.35	0	295850.59	392.78	16600	574.35	0	337241.22	0.008986	1986 Hourl	2016	0	400	37.2919	0	25033.186	3030.4496
82	82	2016	0	0	6505.24	0	295843.47	681.26	16600	746.37	0	435948.08	0.006532	1986 Hourl	2016	1.53	400	0	0	31714.924	2847.6129
83	83	2016	1.28	0	9491.93	0	295843	1315.53	16600	1593.74	0	571720.18	0.002618	1986 Hourl	2016	3.05	400	55.627264	0	39604.236	1496.7634
84	84	2016	19.26	0	12339.08	0	295846.31	2466.51	16600	2563.69	0	747429.45	0.000642	1986 Hourl	2016	4.76	400	205.257672	0	20308.756	479.84971
85	85	2016	0.53	0	1069.37	0	296563	70.36	16600	59.55	0	116781.51	0.000642	1987 Hourl	2016	-4.76	400	5.648316	0	40.883191	74.973729
86	86	2016	1.08	0	1975.27	0	296560.25	131.19	16600	138.24	0	169992.84	0.002618	1987 Hourl	2016	-3.05	400	46.935504	0	714.87455	445.04126
87	87	2016	0.1	0	2723.05	0	296563.81	200.49	16600	248.68	0	227324.99	0.006532	1987 Hourl	2016	-1.53	400	10.84312	0	4423.2619	1484.8868
88	88	2016	1.9	0	3761.19	0	296563.81	307.11	16600	299.65	0	313418.58	0.008986	1987 Hourl	2016	0	400	283.41844	0	10127.587	2816.3794
89	89	2016	2.95	0	5158.21	0	296562.59	536.04	16600	608.67	0	395236.16	0.006532	1987 Hourl	2016	1.53	400	319.87204	0	20508.179	2581.6826
90	90	2016	6.53	0	7163.01	0	296561.34	1002.96	16600	1120.34	0	526237.38	0.002618	1987 Hourl	2016	3.05	400	283.785964	0	21009.467	1377.6895
91	91	2016	35.62	0	10829.08	0	296562.34	2385.97	16600	1733.94	0	728258.85	0.000642	1987 Hourl	2016	4.76	400	379.609464	0	12054.818	467.54218
92	92	2016	2.69	0	3148.29	0	296984.41	200.97	16600	109.23	0	206723.55	0.000642	1988 Hourl	2016	-4.76	400	28.667868	0	220.77591	132.71652
93	93	2016	2.74	0	5362.48	0	296981.81	341.89	16600	156.22	0	305725.9	0.002618	1988 Hourl	2016	-3.05	400	119.077112	0	2193.1683	800.39041

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
1	**329**	**3,618**	**-**	**1,113**	129,742	17,928	-	34,172	77,642	0.001909	109,022	0
2		760.75			274,103	9,960	-	152,931	111,212	0.005927	120,218	1%
3					411,887	996	-	242,092	168,799	0.009822	143,365	2%
4					1,807,370	89,142	-	1,492,603	225,625	0.00763	143,920	3%
5					2,301,292	17,596	-	1,973,077	310,619	0.002261	188,646	3%
6					4,856,195	65,736	-	4,380,392	410,068	0.000791	197,708	3%
7					10,296,957	112,880	-	9,648,162	535,916	0.000231	203,528	3%
8					142,570	498	-	41,191	100,881	0.001909	209,426	3%
9					249,897	9,794	-	94,972	145,131	0.005927	214,991	4%
10					590,872	7,304	-	390,770	192,798	0.009822	224,473	5%
11					1,131,761	6,308	-	868,531	256,922	0.00763	228,248	5%
12					1,890,071	4,814	-	1,550,164	335,093	0.002261	229,283	6%
13					4,230,387	1,494	-	3,789,246	439,647	0.000791	242,500	6%
14					11,326,403	132,302	-	10,631,453	562,648	0.000231	250,277	6%
15					296,938	29,216	-	85,026	182,696	0.001909	277,692	6%
16					539,551	9,296	-	266,681	263,574	0.005927	291,005	6%
17					1,028,861	22,576	-	645,251	361,034	0.009822	353,134	7%
18					2,614,840	251,988	-	1,874,380	488,473	0.00763	355,667	8%
19					6,178,527	818,546	-	4,720,297	639,684	0.002261	380,649	8%
20					15,700,940	3,614,816	-	11,243,271	842,853	0.000791	425,126	9%
21					38,862,374	16,019,830	-	21,734,527	1,108,017	0.000231	443,005	9%
22					154,443	4,150	-	49,596	100,697	0.001909	459,794	9%
23					324,560	21,580	-	153,387	149,594	0.005927	464,875	9%
24					568,239	10,292	-	350,249	207,697	0.009822	478,024	10%
25					1,545,783	41,832	-	1,215,308	288,643	0.00763	527,816	11%
26					4,249,745	298,800	-	3,566,091	384,854	0.002261	528,488	11%
27					6,802,044	955,330	-	5,349,262	497,452	0.000791	657,945	11%
28					17,806,745	3,469,566	-	13,640,966	696,213	0.000231	686,032	11%
29					129,433	4,648	-	34,850	89,934	0.001909	704,430	12%
30					351,166	1,660	-	230,340	119,166	0.005927	722,238	12%
31					834,971	18,592	-	640,815	175,564	0.009822	733,829	13%
32					722,786	332	-	478,058	244,395	0.00763	741,486	14%
33					2,262,934	3,818	-	1,932,562	326,555	0.002261	747,370	14%
34					4,304,926	39,674	-	3,840,624	424,628	0.000791	771,253	14%
35					8,962,104	179,114	-	8,193,930	589,060	0.000231	773,594	14%
36					687,817	47,310	-	470,868	169,640	0.001909	779,958	14%
37					619,698	7,968	-	361,080	250,650	0.005927	828,854	15%
38					1,401,756	113,544	-	961,000	327,212	0.009822	872,140	16%
39					3,914,630	148,736	-	3,331,178	434,715	0.00763	902,862	17%
40					10,248,475	813,732	-	8,851,459	583,283	0.002261	943,531	17%
41					19,518,000	1,838,450	-	16,932,756	746,794	0.000791	999,497	17%
42					51,898,883	7,591,346	-	43,322,157	985,381	0.000231	1,109,237	17%
43					67,434	-	-	11,430	56,005	0.001909	1,132,014	17%
44					153,891	-	-	60,319	93,572	0.005927	1,192,000	18%
45					281,856	-	-	147,234	134,622	0.009822	1,193,734	19%
46					842,457	19,256	-	632,686	190,515	0.00763	1,245,870	20%
47					2,013,597	46,480	-	1,709,033	258,084	0.002261	1,320,162	20%
48					3,761,079	167,328	-	3,249,096	344,656	0.000791	1,350,031	20%
49					7,996,326	982,554	-	6,532,190	481,582	0.000231	1,354,764	20%
50					97,578	-	-	13,860	83,718	0.001909	1,356,709	20%
51					159,900	-	-	41,429	118,472	0.005927	1,378,640	21%
52					345,675	-	-	171,902	173,772	0.009822	1,421,904	22%
53					891,175	19,920	-	637,478	233,777	0.00763	1,676,255	23%
54					1,314,070	64,740	-	941,667	307,663	0.002261	1,729,401	23%
55					3,996,222	451,686	-	3,124,458	420,078	0.000791	1,742,479	23%
56					9,185,339	2,514,070	-	6,120,628	550,641	0.000231	1,850,406	23%
57					1,212,795	164,174	-	752,743	295,878	0.001909	1,941,428	23%
58					2,807,878	352,252	-	2,025,226	430,400	0.005927	2,036,736	24%
59					8,397,904	1,610,864	-	6,241,292	545,747	0.009822	2,041,425	25%
60					20,428,843	6,864,100	-	12,856,883	707,860	0.00763	2,092,130	25%
61					48,045,271	20,719,622	-	26,442,040	883,609	0.002261	2,188,714	26%
62					119,028,541	75,097,404	-	42,843,251	1,087,886	0.000791	2,195,207	26%
63					255,354,723	195,439,768	-	58,529,176	1,385,779	0.000231	2,227,632	26%
64					92,035	-	-	18,025	74,009	0.001909	2,411,082	26%
65					338,430	-	-	228,558	109,872	0.005927	2,444,724	26%
66					302,973	-	-	151,399	151,574	0.009822	2,503,670	27%
67					626,805	25,398	-	391,403	210,004	0.00763	2,535,728	28%
68					1,811,349	124,334	-	1,411,316	275,699	0.002261	2,548,812	28%
69					6,225,360	343,454	-	5,510,157	371,748	0.000791	2,617,251	29%
70					11,339,985	1,507,944	-	9,336,004	496,037	0.000231	2,627,493	29%
71					51,288	-	-	5,293	45,995	0.001909	2,661,838	29%
72					113,751	-	-	37,431	76,320	0.005927	2,891,157	29%
73					253,624	-	-	150,459	103,165	0.009822	2,938,201	30%
74					461,455	9,794	-	303,885	147,776	0.00763	3,219,947	31%
75					1,258,181	39,176	-	1,015,134	203,870	0.002261	3,538,075	31%
76					2,200,324	25,232	-	1,898,551	276,541	0.000791	3,677,336	31%
77					4,905,508	45,982	-	4,472,625	386,901	0.000231	3,686,640	31%
78					445,324	39,010	-	272,584	133,730	0.001909	3,780,047	32%
79					501,548	2,988	-	311,799	186,761	0.005927	3,845,735	32%
80					904,157	2,324	-	647,320	254,513	0.009822	4,130,755	33%
81					3,127,190	4,150	-	2,785,799	337,241	0.00763	4,130,838	34%
82					5,291,264	-	-	4,855,316	435,948	0.002261	4,350,615	34%
83					15,720,637	21,248	-	15,127,669	571,720	0.000791	4,391,543	34%
84					32,700,721	319,716	-	31,633,576	747,429	0.000231	4,466,305	34%
85					189,260	8,798	-	63,681	116,782	0.001909	4,718,059	34%
86					460,982	17,928	-	273,061	169,993	0.005927	5,237,078	35%
87					906,153	1,660	-	677,168	227,325	0.009822	5,490,119	36%
88					1,471,999	31,540	-	1,127,041	313,419	0.00763	5,797,910	37%
89					3,583,854	48,970	-	3,139,648	395,236	0.002261	5,842,819	37%
90					8,659,642	108,398	-	8,025,007	526,237	0.000791	5,875,578	37%
91					20,096,526	591,292	-	18,776,975	728,259	0.000231	6,082,609	37%
92					595,265	44,654	-	343,888	206,724	0.001909	6,195,418	37%
93					1,188,937	45,484	-	837,727	305,726	0.005927	6,483,090	38%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**		Case Probability		
94	94	2016	10.54	0	8340.94	0	296980.72	575.33	16600	337.65	0	406290.42	0.006532	1988 Hourl	2016	-1.53	400	1142.864848	0	18396.192	2653.889	3,397,573	174,964	-	2,816,318	406,290	0.009822	6,508,522	39%
95	95	2016	16.07	0	11525.62	0	296983.78	995.26	16600	575.17	0	535600.94	0.008986	1988 Hourl	2016	0	400	2397.123332	0	59569.909	4812.91	7,431,554	266,762	-	6,629,191	535,601	0.00763	6,863,782	40%
96	96	2016	62.88	0	16692.62	0	296983.59	1904.53	16600	945.75	0	710434.72	0.006532	1988 Hourl	2016	1.53	400	6818.153856	0	103120.98	4640.5596	17,541,288	1,043,808	-	15,787,045	710,435	0.002261	6,910,469	40%
97	97	2016	209.51	0	22549.49	0	296982.91	3787.49	16600	1543.98	0	909251.26	0.002618	1988 Hourl	2016	3.05	400	9105.053188	0	91148.187	2380.4198	39,203,079	3,477,866	-	34,815,962	909,251	0.000791	7,038,401	40%
98	98	2016	876.96	0	28649.37	0	296984.59	7541.05	16600	2455.83	0	1185719.7	0.000642	1988 Hourl	2016	4.76	400	9345.938112	0	45169.825	761.23206	86,101,238	14,557,536	-	70,357,982	1,185,720	0.000231	7,272,700	40%
99	99	2016	0.13	0	528.73	0	295300.84	37.78	16600	95.75	0	72958.13	0.000642	1989 Hourl	2016	-4.76	400	1.385436	0	32.501826	46.839119	125,742	2,158	-	50,626	72,958	0.001909	7,775,271	40%
100	100	2016	0	0	823.78	0	295304.16	57.56	16600	90.14	0	109298.19	0.002618	1989 Hourl	2016	-3.05	400	0	0	194.40098	286.14266	183,554	-	-	74,256	109,298	0.005927	7,833,435	41%
101	101	2016	0.18	0	1195.01	0	295302.44	89.72	16600	146.67	0	153039.86	0.006532	1989 Hourl	2016	-1.53	400	19.517616	0	1144.8775	999.65637	331,300	2,988	-	175,272	153,040	0.009822	7,999,972	42%
102	102	2016	1.83	0	1804.56	0	295303.84	144.22	16600	295.74	0	202762.18	0.008986	1989 Hourl	2016	0	400	272.976708	0	4795.6536	1822.0209	766,821	30,378	-	533,681	202,762	0.00763	8,045,866	43%
103	103	2016	0.85	0	2689.59	0	295302.22	270.44	16600	548.97	0	282871.81	0.006532	1989 Hourl	2016	1.53	400	92.16652	0	9644.5256	1847.7187	1,773,486	14,110	-	1,476,504	282,872	0.002261	8,163,169	43%
104	104	2016	0.73	0	4222.08	0	295303.94	558.29	16600	649.07	0	387674.75	0.002618	1989 Hourl	2016	3.05	400	31.724924	0	7174.4339	1014.9325	3,140,218	12,118	-	2,740,425	387,675	0.000791	8,231,151	43%
105	105	2016	11.39	0	6211.3	0	295301.22	1281.08	16600	1454.46	0	526614.69	0.000642	1989 Hourl	2016	4.76	400	121.385508	0	5799.8841	338.08663	9,749,776	189,074	-	9,034,087	526,615	0.000231	9,369,223	43%
106	106	2016	0	0	1016.19	0	295302.88	65.84	16600	53.93	0	75653.44	0.000642	1990 Hourl	2016	-4.76	400	0	0	35.183607	48.569508	130,457	-	-	54,803	75,653	0.001909	9,397,053	43%
107	107	2016	2.9	0	1957	0	295301.53	127.76	16600	326.75	0	115684.29	0.002618	1990 Hourl	2016	-3.05	400	126.03052	0	1674.0794	302.86147	803,274	48,140	-	639,450	115,684	0.005927	9,547,561	44%
108	108	2016	11.66	0	2983.6	0	295307.09	218.54	16600	455.3	0	160541.21	0.006532	1990 Hourl	2016	-1.53	400	1264.307792	0	8873.2849	1048.6552	1,712,530	193,556	-	1,358,433	160,541	0.009822	9,655,956	45%
109	109	2016	5.91	0	4183.57	0	295304.62	368.05	16600	586.78	0	210487	0.008986	1990 Hourl	2016	0	400	881.580516	0	22059.149	1891.4362	2,763,428	98,106	-	2,454,835	210,487	0.00763	9,754,034	45%
110	110	2016	38.29	0	5508.17	0	295300.5	663.98	16600	1109.93	0	267611.73	0.006532	1990 Hourl	2016	1.53	400	4151.830648	0	39934.578	1748.0398	7,016,909	635,614	-	6,113,683	267,612	0.002261	10,384,152	46%
111	111	2016	157.08	0	7633.96	0	295300.84	1389.38	16600	1519.92	0	351434.14	0.002618	1990 Hourl	2016	3.05	400	6826.508304	0	30376.676	920.05458	14,561,971	2,607,528	-	11,603,008	351,434	0.000791	10,576,179	46%
112	112	2016	474.09	0	9320.82	0	295302.69	2707.82	16600	2582.8	0	459106.46	0.000642	1990 Hourl	2016	4.76	400	5052.471948	0	15455.389	294.74635	32,402,814	7,869,894	-	24,073,814	459,106	0.000231	10,594,032	46%
113	113	2016	0	0	1882.55	0	296218.81	109.42	16600	93.49	0	165180.3	0.000642	1991 Hourl	2016	-4.76	400	0	0	112.99174	106.04575	341,180	-	-	176,000	165,180	0.001909	11,306,273	46%
114	114	2016	2.17	0	2838.76	0	296216.56	183.55	16600	215.86	0	229857.76	0.002618	1991 Hourl	2016	-3.05	400	94.305596	0	1604.2443	601.76762	878,654	36,022	-	612,775	229,858	0.005927	11,548,795	46%
115	115	2016	4.38	0	3771.44	0	296215.94	257.59	16600	282.75	0	299878.44	0.006532	1991 Hourl	2016	-1.53	400	474.928656	0	6965.5593	1958.806	1,438,961	72,708	-	1,066,375	299,878	0.009822	11,908,476	47%
116	116	2016	1.08	0	6106.11	0	296215.34	502.58	16600	436.31	0	419558.04	0.008986	1991 Hourl	2016	0	400	161.101008	0	23940.113	3770.1485	3,101,643	17,928	-	2,664,157	419,558	0.00763	11,989,541	48%
117	117	2016	1.91	0	8243.35	0	296217.28	863.25	16600	1135.52	0	519362.36	0.006532	1991 Hourl	2016	1.53	400	207.103592	0	61142.713	3392.4749	9,911,557	31,706	-	9,360,489	519,362	0.002261	12,247,502	48%
118	118	2016	19.73	0	10165.8	0	296218.19	1434.65	16600	1240.9	0	652629.86	0.002618	1991 Hourl	2016	3.05	400	857.442124	0	33025.393	1708.585	13,594,889	327,518	-	12,614,741	652,630	0.000791	12,524,581	49%
119	119	2016	94.02	0	14731.09	0	296214.59	3114.06	16600	2467.32	0	853479.31	0.000642	1991 Hourl	2016	4.76	400	1001.989944	0	23334.333	547.93372	38,760,524	1,560,732	-	36,346,313	853,479	0.000231	13,887,491	49%
120	120	2016	0	0	190.49	0	295303.09	17.06	16600	23.97	0	41898.48	0.000642	1992 Hourl	2016	-4.76	400	0	0	2.9314011	26.898824	46,465	-	-	4,566	41,898	0.001909	15,002,594	49%
121	121	2016	0.22	0	515.85	0	295306.19	38.51	16600	161.37	0	66809.23	0.002618	1992 Hourl	2016	-3.05	400	9.560936	0	217.92943	174.90656	153,704	3,652	-	83,243	66,809	0.005927	15,279,847	49%
122	122	2016	0.48	0	680.79	0	295304.56	48.93	16600	138.54	0	89831.56	0.006532	1992 Hourl	2016	-1.53	400	52.046976	0	616.07634	586.77975	192,116	7,968	-	94,317	89,832	0.009822	15,736,127	50%
123	123	2016	0	0	1019.06	0	295303.47	86.28	16600	275.63	0	128011.69	0.008986	1992 Hourl	2016	0	400	0	0	2524.0192	1150.313	408,895	-	-	280,884	128,012	0.00763	16,020,383	51%
124	124	2016	5.53	0	1632.84	0	295302.41	163.7	16600	582.87	0	173024.18	0.006532	1992 Hourl	2016	1.53	400	599.624536	0	6216.7229	1130.1939	1,216,556	91,798	-	951,733	173,024	0.002261	16,118,748	51%
125	125	2016	14.73	0	2067.3	0	295305	294.82	16600	898.69	0	225430.76	0.002618	1992 Hourl	2016	3.05	400	640.148124	0	4863.8823	590.17773	2,327,811	244,518	-	1,857,862	225,431	0.000791	16,326,879	51%
126	126	2016	59.2	0	2959.27	0	295302.5	645.36	16600	1267.44	0	302506.14	0.000642	1992 Hourl	2016	4.76	400	630.90624	0	2407.9476	194.20894	5,035,923	982,720	-	3,750,697	302,506	0.000231	16,426,661	51%
127	127	2016	1.68	0	1447.51	0	296391.94	96.8	16600	56.23	0	127708.08	0.000642	1993 Hourl	2016	-4.76	400	17.904096	0	52.254619	81.988587	236,990	27,888	-	81,393	127,708	0.001909	16,459,700	52%
128	128	2016	0	0	2078.16	0	296389.09	135.01	16600	82.79	0	180456.57	0.002618	1993 Hourl	2016	-3.05	400	0	0	450.42917	472.4353	352,507	-	-	172,051	180,457	0.005927	17,515,262	52%
129	129	2016	1.34	0	3018.63	0	296391.62	218	16600	194.34	0	243761.4	0.006532	1993 Hourl	2016	-1.53	400	145.297808	0	3831.9361	1592.2495	852,646	22,244	-	586,641	243,761	0.009822	18,203,651	53%
130	130	2016	6.7	0	4568.47	0	296389.81	405	16600	519.43	0	326158.91	0.008986	1993 Hourl	2016	0	400	999.42292	0	21323.781	2930.864	2,810,379	111,220	-	2,373,000	326,159	0.00763	18,469,509	54%
131	131	2016	10.4	0	6645.42	0	296387.91	706.98	16600	704.36	0	439594.66	0.006532	1993 Hourl	2016	1.53	400	1127.68448	0	30574.777	2871.4323	5,293,003	172,640	-	4,680,768	439,595	0.002261	18,546,480	54%
132	132	2016	22.03	0	9404.16	0	296390.62	1389.58	16600	1160.02	0	585764.05	0.002618	1993 Hourl	2016	3.05	400	957.397364	0	28559.798	1533.5303	11,860,476	365,698	-	10,909,014	585,764	0.000791	18,628,799	54%
133	133	2016	139.71	0	12578.74	0	296389.25	2924.52	16600	1888.75	0	772265.58	0.000642	1993 Hourl	2016	4.76	400	1488.917412	0	15252.697	495.7945	26,849,547	2,319,186	-	23,758,095	772,266	0.000231	19,954,558	54%
134	134	2016	0	0	752.44	0	295753.44	52.9	16600	56.68	0	93689.5	0.000642	1994 Hourl	2016	-4.76	400	0	0	27.380208	60.148659	136,338	-	-	42,648	93,690	0.001909	20,370,709	54%
135	135	2016	0	0	1029.41	0	295759.53	78.69	16600	87.75	0	133064.13	0.002618	1994 Hourl	2016	-3.05	400	0	0	236.48584	348.36189	223,395	-	-	90,331	133,064	0.005927	20,655,614	55%
136	136	2016	0.11	0	2003.51	0	295750.97	137.48	16600	136.14	0	197211.46	0.006532	1994 Hourl	2016	-1.53	400	11.927432	0	1781.6543	1288.1853	471,795	1,826	-	272,758	197,211	0.009822	20,799,395	56%
137	137	2016	1.49	0	2760.91	0	295755	220.56	16600	261.43	0	265743.43	0.008986	1994 Hourl	2016	0	400	222.259724	0	6485.9573	2387.9705	1,012,262	24,734	-	721,785	265,743	0.00763	21,647,400	57%
138	138	2016	6.05	0	4328.75	0	295756.94	425.75	16600	505.71	0	361351.97	0.006532	1994 Hourl	2016	1.53	400	656.00876	0	14299.15	2360.3511	2,650,874	100,430	-	2,189,092	361,352	0.002261	22,378,108	57%
139	139	2016	24.87	0	5638.78	0	295756.06	780.13	16600	788.65	0	469949.57	0.002618	1994 Hourl	2016	3.05	400	1080.820356	0	11642.308	1230.328	5,329,815	412,842	-	4,447,024	469,950	0.000791	22,403,865	57%
140	140	2016	133.39	0	8362.61	0	295755.47	1897.82	16600	1621.43	0	635272.31	0.000642	1994 Hourl	2016	4.76	400	1421.563908	0	8705.1263	407.84482	16,408,933	2,214,274	-	13,559,387	635,272	0.000231	22,468,085	57%
141	141	2016	4.12	0	2299.11	0	295485.34	152.1	16600	91.81	0	212378.08	0.000642	1995 Hourl	2016	-4.76	400	43.907664	0	135.51419	136.34673	491,851	68,392	-	211,081	212,378	0.001909	22,712,944	57%
142	142	2016	8.07	0	4230.26	0	295483.91	276.14	16600	320.28	0	315322	0.002618	1995 Hourl	2016	-3.05	400	350.712516	0	3547.0436	825.513	1,804,152	133,962	-	1,354,868	315,322	0.005927	23,215,464	58%
143	143	2016	4.63	0	5668.01	0	295481.44	386.67	16600	261.52	0	409625.78	0.006532	1995 Hourl	2016	-1.53	400	502.036456	0	9682.3704	2675.6756	1,968,782	76,858	-	1,482,298	409,626	0.009822	24,989,141	59%
144	144	2016	9.69	0	8146.98	0	295482.75	686.69	16600	483.75	0	551838.55	0.008986	1995 Hourl	2016	0	400	1445.434044	0	35414.739	4958.8212	4,653,794	160,854	-	3,941,102	551,839	0.00763	26,409,021	60%
145	145	2016	44.52	0	10567.5	0	295482.44	1209.91	16600	821.1	0	683112.84	0.006532	1995 Hourl	2016	1.53	400	4827.357024	0	56677.996	4462.0931	10,099,119	739,032	-	8,676,974	683,113	0.002261	27,007,798	60%
146	146	2016	178.61	0	14238.35	0	295484.03	2410.77	16600	1395.08	0	874075.2	0.002618	1995 Hourl	2016	3.05	400	7762.176268	0	52003.002	2288.3289	23,702,639	2,964,926	-	19,863,637	874,075	0.000791	27,051,835	60%
147	147	2016	859.12	0	18650.83	0	295481.59	4915.22	16600	2410.34	0	1131376.7	0.000642	1995 Hourl	2016	4.76	400	9155.813664	0	28861.008	726.34386	60,347,610	14,261,392	-	44,954,842	1,131,377	0.000231	27,877,290	60%
148	148	2016	0	0	593.89	0	295393.72	41.44	16600	45.57	0	84629.94	0.000642	1996 Hourl	2016	-4.76	400	0	0	17.37481	54.332421	111,694	-	-	27,064	84,630	0.001909	28,433,145	60%
149	149	2016	0.48	0	890.68	0	295391.88	64.73	16600	129.82	0	113295.45	0.002618	1996 Hourl	2016	-3.05	400	20.860224	0	302.71431	296.60749	236,892	7,968	-	115,628	113,295	0.005927	29,053,865	61%
150	150	2016	1.13	0	1421.53	0	295390.94	103.87	16600	179.54	0	154578.23	0.006532	1996 Hourl	2016	-1.53	400	122.527256	0	1667.1068	1009.705	428,558	18,758	-	255,221	154,578	0.009822	32,023,523	62%
151	151	2016	0	0	1841.97	0	295389.16	150.86	16600	234.01	0	210526.21	0.008986	1996 Hourl	2016	0	400	0	0	3873.32	1891.7885	641,566	-	-	431,039	210,526	0.00763	32,060,835	63%
152	152	2016	0.24	0	3179.09	0	295389.97	315.18	16600	549.94	0	301718.45	0.006532	1996 Hourl	2016	1.53	400	26.023488	0	11419.953	1970.8249	2,054,011	3,984	-	1,748,309	301,718	0.002261	32,590,320	63%
153	153	2016	0.05	0	4266.2	0	295388.22	579.19	16600	703.23	0	384217.16	0.002618	1996 Hourl	2016	3.05	400	2.17294	0	7854.3137	1005.8805	3,385,167	830	-	3,000,120	384,217	0.000791	33,652,538	63%
154	154	2016	3.2	0	6304.69	0	295388.06	1299.05	16600	1750.84	0	530333.87	0.000642	1996 Hourl	2016	4.76	400	34.10304	0	7086.7192	340.47434	11,621,957	53,120	-	11,038,503	530,334	0.000231	34,405,644	63%
155	155	2016	0	0	981.18	0	296243.53	62.52	16600	48.59	0	122331.38	0.000642	1997 Hourl	2016	-4.76	400	0	0	30.607694	78.536746	170,007	-	-	47,676	122,331	0.001909	34,493,339	63%
156	156	2016	0.15	0	1533.12	0	296242.19	108.65	16600	116.51	0	175079.36	0.002618	1997 Hourl	2016	-3.05	400	6.51882	0	467.63714	458.35776	356,193	2,490	-	178,624	175,079	0.005927	36,412,038	64%
157	157	2016	0.02	0	2565.26	0	296243.31	173.53	16600	357	0	240895.65	0.006532	1997 Hourl	2016	-1.53	400	2.168624	0	5981.9914	1573.5304	1,157,025	332	-	915,798	240,896	0.009822	36,677,631	65%
158	158	2016	0.36	0	3931.99	0	296245.03	311.37	16600	497.26	0	323095.02	0.008986	1997 Hourl	2016	0	400	53.700336	0	17569.619	2903.3318	2,284,292	5,976	-	1,955,221	323,095	0.00763	36,818,664	65%
159	159	2016	1.86	0	4867.94	0	296240.03	483.58	16600	605.18	0	410136.56	0.006532	1997 Hourl	2016	1.53	400	201.682032	0	19243.141	2679.012	3,386,992	30,876	-	2,945,980	410,137	0.002261	37,461,556	66%
160	160	2016	12.16	0	7273.28	0	296245.62	1029.45	16600	1140.57	0	537562.96	0.002618	1997 Hourl	2016	3.05	400	528.459008	0	21718.103	1407.3398	9,035,104	201,856	-	8,295,685	537,563	0.000791	39,568,617	66%
161	161	2016	44.02	0	10484.42	0	296242.72	2237.96	16600	1984.56	0	711468.2	0.000642	1997 Hourl	2016	4.76	400	469.129944	0	13358.069	456.76258	22,249,161	730,732	-	20,806,961	711,468	0.000231	40,209,750	66%
162	162	2016	0	0	734.68	0	296283.31	51.38	16600	43.63	0	90568.64	0.000642	1998 Hourl	2016	-4.76	400	0	0	20.578725	58.145067	122,623	-	-	32,054	90,569	0.001909	40,332,589	66%
163	163	2016	0	0	986.95	0	296279.28	69.08	16600	79.29	0	126597.62	0.002618	1998 Hourl	2016	-3.05	400	0	0	204.87229	331.43257	204,853	-	-	78,255	126,598	0.005927	40,705,017	66%
164	164	2016	0.19	0	1535.51	0	296280.16	114.52	16600	181.91	0	169073.53	0.006532	1998 Hourl	2016	-1.53	400	20.601928	0	1824.5484	1104.3883	451,552	3,154	-	279,325	169,074	0.009822	41,071,294	67%
165	165	2016	0.23	0	2217.16	0	296280.56	189.32	16600	309.16	0	227546.09	0.008986	1998 Hourl	2016	0	400	34.308548	0	6159.5183	2044.7292	916,821	3,818	-	685,457	227,546	0.00763	43,372,819	68%
166	166	2016	0.32	0	3177.72	0	296281.56	322.11	16600	454.45	0	313758.11	0.006532	1998 Hourl	2016	1.53	400	34.697984	0	9432.9582	2049.468	1,763,185	5,312	-	1,444,115	313,758	0.002261	44,232,870	68%
167	167	2016	1.6	0	4713.23	0	296281.72	648.06	16600	950.07	0	434229.54	0.002618	1998 Hourl	2016	3.05	400	69.53408	0	11723.138	1136.8129	4,938,688	26,560	-	4,477,898	434,230	0.000791	44,528,449	69%
168	168	2016	11.32	0	6713.89	0	296281.88	1422.52	16600	1525.94	0	576561.17	0.000642	1998 Hourl	2016	4.76	400	120.639504	0	6577.2857	370.15227	11,009,466	187,912	-	10,244,993	576,561	0.000231	46,582,851	69%
169	169	2016	6.94	0	4007.87	0	295301.84	242.62	16600	108.28	0	208266.23	0.000642	1999 Hourl	2016	-4.76	400	73.960968	0	278.61013	133.70692	757,442	115,204	-	433,972	208,266	0.001909	48,581,465	69%
170	170	2016	7.64	0	6197.75	0	295300.88	379.31	16600	181.34	0	289013.73	0.002618	1999 Hourl	2016	-3.05	400	332.025232	0	2942.3702	756.63795	1,539,738	126,824	-	1,123,900	289,014	0.005927	51,426,739	69%
171	171	2016	49.79	0	9153.91	0	295300.56	709.25	16600	347.44	0	387452.02	0.006532	1999 Hourl	2016	-1.53	400	5398.789448	0	20774.598	2530.8366	4,394,401	826,514	-	3,180,434	387,452	0.009822	52,100,409	70%
172	172	2016	200.61	0	12043.93	0	295301	1409.44	16600	717.87	0	500201.24	0.008986	1999 Hourl	2016	0	400	29924.51224	0	77692.741	4494.8083	12,476,303	3,330,126	-	8,645,976	500,201	0.00763	52,502,618	71%
173	173	2016	665.84	0	15598.63	0	295302.53	2820.14	16600	1186.3	0	643983.39	0.006532	1999 Hourl	2016	1.53	400	72197.83021	0	120872.4	4206.4995	30,201,582	11,052,944	-	18,504,655	643,983	0.002261	53,171,077	71%
174	174	2016	2265.18	0	17909.55	0	295301.44	4816.43	16600	1656.28	0	807804.49	0.002618	1999 Hourl	2016	3.05	400	98442.00458	0	77658.335	2114.8322	68,073,022	37,601,988	-	29,663,229	807,804	0.000791	53,356,604	71%
175	175	2016	6125.95	0	18311.88	0	295302.94	7711.4	16600	2266.32	0	997957.08	0.000642	1999 Hourl	2016	4.76	400	65285.47434	0	26643.372	640.68845	144,189,307	101,690,770	-	41,500,580	997,957	0.000231	54,249,263	71%
176	176	2016	0	0	316.86	0	295650.09	25.14	16600	34.31	0	68391.9	0.000642	2000 Hourl	2016	-4.76	400	0	0	6.9794816	43.9076	79,263	-	-	10,871	68,392	0.001909	57,152,308	72%
177	177	2016	0	0	863.63	0	295649.75	55.66	16600	86.87	0	113476.18	0.002618	2000 Hourl	2016	-3.05	400	0	0	196.41162	297.08064	188,500	-	-	75,024	113,476	0.005927	58,924,586	72%
178	178	2016	0	0	1062.43	0	295652.41	77.28	16600	1534.57	0	141492.95	0.006532	2000 Hourl	2016	-1.53	400	0	0	10649.598	924.23195	1,771,866	-	-	1,630,373	141,493	0.009822	63,532,658	73%
179	179	2016	0	0	1447.93	0	295648.44	116.76	16600	209.35	0	195734.08	0.008986	2000 Hourl	2016	0	400	0	0	2723.8736	1758.8664	498,858	-	-	303,124	195,734	0.00763	66,106,372	74%
180	180	2016	2.24	0	2224.75	0	295652.44	227.38	16600	687.38	0	266226.98	0.006532	2000 Hourl	2016	1.53	400	242.885888	0	9989.0522	1738.9946	1,832,660	37,184	-	1,529,249	266,227	0.002261	68,333,884	74%
181	181	2016	5.93	0	3433.92	0	295654.41	460.09	16600	901.51	0	369982.08	0.002618	2000 Hourl	2016	3.05	400	257.710684	0	8104.5772	968.61309	3,564,133	98,438	-	3,095,713	369,982	0.000791	68,792,792	74%
182	182	2016	25.75	0	5102.72	0	295655.28	1042.01	16600	1658.45	0	503196.72	0.000642	2000 Hourl	2016	4.76	400	274.4229	0	5432.993	323.05229	9,393,253	427,450	-	8,462,606	503,197	0.000231	69,786,060	74%
183	183	2016	0	0	734.48	0	296597.41	56.55	16600	35.4	0	78216.33	0.000642	2001 Hourl	2016	-4.76	400	0	0	16.69238	50.214884	104,217	-	-	26,001	78,216	0.001909	70,328,618	74%
184	184	2016	0	0	1364.62	0	296600.09	92.57	16600	116.17	0	114392.55	0.002618	2001 Hourl	2016	-3.05	400	0	0	415.02606	299.4797	272,920	-	-	158,528	114,393	0.005927	70,406,660	75%
185	185	2016	0.22	0	1761.18	0	296598.09	131.39	16600	158.12	0	149178.79	0.006532	2001 Hourl	2016	-1.53	400	23.854864	0	1819.0169	974.43586	431,309	3,652	-	278,478	149,179	0.009822	72,044,117	76%
186	186	2016	0.33	0	2417.75	0	296599.59	196.96	16600	279.92	0	205528.01	0.008986	2001 Hourl	2016	0	400	49.225308	0	6081.5143	1846.8747	887,783	5,478	-	676,777	205,528	0.00763	72,195,618	77%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
187	187	2016	2.39	0	3462.28	0	296598.84	355.65	16600	535.75	0	275836.73	0.006532	2001 Hourl	2016	1.53	400	259.150568	0	12116.315	1801.7655
188	188	2016	4.77	0	4737.33	0	296596.84	638.57	16600	1029.08	0	367219.53	0.002618	2001 Hourl	2016	3.05	400	207.298476	0	12762.99	961.38073
189	189	2016	5.07	0	7037.25	0	296600.44	1463.84	16600	1468.73	0	523883.03	0.000642	2001 Hourl	2016	4.76	400	54.032004	0	6635.5966	336.33291
190	190	2016	0.79	0	1958.55	0	295302.41	129.94	16600	69.78	0	160176.78	0.000642	2002 Hourl	2016	-4.76	400	8.419188	0	87.740611	102.83349
191	191	2016	0	0	2526.75	0	295300.69	172.51	16600	95.82	0	222938.35	0.002618	2002 Hourl	2016	-3.05	400	0	0	633.85232	583.6526
192	192	2016	7.8	0	4537.41	0	295303.84	326.53	16600	329.27	0	317626.72	0.006532	2002 Hourl	2016	-1.53	400	845.76336	0	9759.0235	2074.7377
193	193	2016	5.22	0	6094.53	0	295301.41	515.4	16600	374.78	0	421837.5	0.008986	2002 Hourl	2016	0	400	778.654872	0	20524.994	3790.6318
194	194	2016	12.96	0	9391.86	0	295302.59	1043.74	16600	864.38	0	570515.43	0.006532	2002 Hourl	2016	1.53	400	1405.268352	0	53027.664	3726.6068
195	195	2016	28.01	0	12485.85	0	295298.09	1836.78	16600	1146.74	0	724775.69	0.002618	2002 Hourl	2016	3.05	400	1217.280988	0	37484.586	1897.4628
196	196	2016	110.88	0	17966.27	0	295303.22	4172.76	16600	2012.7	0	983616.42	0.000642	2002 Hourl	2016	4.76	400	1181.670336	0	23215.177	631.48174
197	197	2016	0	0	442.82	0	295949.62	34.08	16600	30.25	0	75456.9	0.000642	2003 Hourl	2016	-4.76	400	0	0	8.5997858	48.44333
198	198	2016	0	0	986.23	0	295949.38	65.14	16600	95.69	0	120158.23	0.002618	2003 Hourl	2016	-3.05	400	0	0	247.06681	314.57425
199	199	2016	0.51	0	1292.88	0	295949	92.71	16600	129.57	0	159695.92	0.006532	2003 Hourl	2016	-1.53	400	55.299912	0	1094.2306	1043.1337
200	200	2016	1.61	0	1785.74	0	295948.44	149.6	16600	267.83	0	205976.77	0.008986	2003 Hourl	2016	0	400	240.159836	0	4297.7769	1850.9073
201	201	2016	3.28	0	2671.89	0	295952.03	277.79	16600	534.23	0	286578.1	0.006532	2003 Hourl	2016	1.53	400	355.654336	0	9323.8016	1871.9281
202	202	2016	9.82	0	3686.01	0	295950.41	501.31	16600	803.49	0	383457.79	0.002618	2003 Hourl	2016	3.05	400	426.765416	0	7753.6578	1003.8925
203	203	2016	88.04	0	5920.88	0	295951	1264.72	16600	1505.84	0	529976.79	0.000642	2003 Hourl	2016	4.76	400	938.259888	0	5724.0065	340.2451
204	204	2016	0	0	177.19	0	295298.84	13.22	16600	35.33	0	40441.31	0.000642	2004 Hourl	2016	-4.76	400	0	0	4.0189988	25.963321
205	205	2016	0	0	338	0	295301.16	26.16	16600	83.28	0	64051.69	0.002618	2004 Hourl	2016	-3.05	400	0	0	73.69314	167.68732
206	206	2016	0	0	445.97	0	295301.56	34.68	16600	110.28	0	83186.12	0.006532	2004 Hourl	2016	-1.53	400	0	0	321.25403	543.37174
207	207	2016	0	0	700.06	0	295300.81	57.17	16600	293.25	0	114745.07	0.008986	2004 Hourl	2016	0	400	0	0	1844.7593	1031.0992
208	208	2016	0.45	0	1083.88	0	295302.09	111.66	16600	448.31	0	163048.93	0.006532	2004 Hourl	2016	1.53	400	48.79404	0	3173.9918	1065.0356
209	209	2016	15.78	0	1778.81	0	295303.09	250.23	16600	736.06	0	235766.01	0.002618	2004 Hourl	2016	3.05	400	685.779864	0	3427.7759	617.23541
210	210	2016	32.27	0	2445.9	0	295298.41	500.38	16600	1338.35	0	320386.05	0.000642	2004 Hourl	2016	4.76	400	343.907844	0	2101.5679	205.68784
211	211	2016	0.09	0	1723.73	0	296224.16	113.31	16600	62.96	0	140525.09	0.000642	2005 Hourl	2016	-4.76	400	0.959148	0	69.673718	90.217108
212	212	2016	1.33	0	2956.73	0	296225.94	193.58	16600	144.73	0	205186.2	0.002618	2005 Hourl	2016	-3.05	400	57.800204	0	1120.3143	537.17747
213	213	2016	4.61	0	4754.1	0	296222.81	339.12	16600	300.18	0	303008.4	0.006532	2005 Hourl	2016	-1.53	400	499.867832	0	9321.724	1979.2509
214	214	2016	9.67	0	6897.69	0	296223.88	602.47	16600	459.52	0	409619.2	0.008986	2005 Hourl	2016	0	400	1442.450692	0	28482.264	3680.8381
215	215	2016	34.18	0	8613.39	0	296225.97	972.17	16600	898.43	0	513671.33	0.006532	2005 Hourl	2016	1.53	400	3706.178416	0	50548.065	3355.3011
216	216	2016	105.12	0	11538.5	0	296224.62	1859.89	16600	1243.9	0	651227.34	0.002618	2005 Hourl	2016	3.05	400	4568.389056	0	37575.474	1704.9132
217	217	2016	399.84	0	16432.72	0	296229.88	4027.82	16600	2084.15	0	894444.29	0.000642	2005 Hourl	2016	4.76	400	4261.174848	0	21987.379	574.23323
218	218	2016	1.36	0	1707.84	0	295578.34	110.11	16600	89.88	0	132899.74	0.000642	2006 Hourl	2016	-4.76	400	14.493792	0	98.547423	85.321633
219	219	2016	1.97	0	2645.83	0	295581.88	173.49	16600	165.36	0	188561.12	0.002618	2006 Hourl	2016	-3.05	400	85.613836	0	1145.4128	493.65301
220	220	2016	8.86	0	4269.59	0	295578.91	299.81	16600	292.25	0	267018.11	0.006532	2006 Hourl	2016	-1.53	400	960.700432	0	8150.5491	1744.1623
221	221	2016	6.28	0	5464.84	0	295584.69	460.25	16600	512.75	0	341075.15	0.008986	2006 Hourl	2016	0	400	936.772528	0	25179.641	3064.9013
222	222	2016	11.37	0	7546.37	0	295581.22	815	16600	743.69	0	441991.96	0.006532	2006 Hourl	2016	1.53	400	1232.862744	0	36658.629	2887.0915
223	223	2016	31.4	0	10402.79	0	295579.44	1586.23	16600	1078.25	0	578198.02	0.002618	2006 Hourl	2016	3.05	400	1364.60632	0	29365.604	1513.7224
224	224	2016	132.53	0	14609.55	0	295582.5	3432.88	16600	2083.94	0	770859.81	0.000642	2006 Hourl	2016	4.76	400	1412.398716	0	19545.963	494.892
225	225	2016	4.08	0	4941.32	0	296275.09	292.71	16600	75.82	0	279548.95	0.000642	2007 Hourl	2016	-4.76	400	43.481376	0	240.52587	179.47043
226	226	2016	6.35	0	7299.25	0	296277.94	451.41	16600	144.8	0	394281.99	0.002618	2007 Hourl	2016	-3.05	400	275.96338	0	2767.0464	1032.2302
227	227	2016	20.78	0	10707.93	0	296272.75	735.32	16600	363.27	0	499955.85	0.006532	2007 Hourl	2016	-1.53	400	2253.200336	0	25408.629	3265.7116
228	228	2016	100.9	0	14545.58	0	296274.5	1381.06	16600	572.33	0	658508.51	0.008986	2007 Hourl	2016	0	400	15051.01084	0	74807.298	5917.3575
229	229	2016	312.42	0	19086.58	0	296277.06	2681.59	16600	990.43	0	827200.23	0.006532	2007 Hourl	2016	1.53	400	33876.0755	0	123480.41	5403.2719
230	230	2016	811.6	0	23361.56	0	296275.19	4995.88	16600	1538.07	0	1028403.4	0.002618	2007 Hourl	2016	3.05	400	35271.16208	0	94069.229	2692.36
231	231	2016	3599.38	0	27302.51	0	296277.22	9219.4	16600	2340.03	0	1301274	0.000642	2007 Hourl	2016	4.76	400	38359.31254	0	41016.541	835.41789
232	232	2016	0	0	632.97	0	295693.59	45.76	16600	38.65	0	94482.03	0.000642	2008 Hourl	2016	-4.76	400	0	0	15.706075	60.657463
233	233	2016	0	0	1003.37	0	295695.97	73.95	16600	84.15	0	136144.73	0.002618	2008 Hourl	2016	-3.05	400	0	0	221.04713	356.4269
234	234	2016	0	0	1515.83	0	295693.22	115.29	16600	184.74	0	186105.62	0.006532	2008 Hourl	2016	-1.53	400	0	0	1829.1849	1215.6419
235	235	2016	1.98	0	2568.95	0	295695.03	213.84	16600	334.91	0	270393.75	0.008986	2008 Hourl	2016	0	400	295.351848	0	7731.2583	2429.7582
236	236	2016	3.05	0	3731.43	0	295697.31	392.27	16600	691.82	0	355334.4	0.006532	2008 Hourl	2016	1.53	400	330.71516	0	16862.214	2321.0443
237	237	2016	2.39	0	5175.07	0	295695.03	699.21	16600	806.95	0	478301.9	0.002618	2008 Hourl	2016	3.05	400	103.866532	0	10932.828	1252.1944
238	238	2016	4.14	0	7218.39	0	295694.94	1484.33	16600	1311.44	0	636766.54	0.000642	2008 Hourl	2016	4.76	400	44.120808	0	6077.4836	408.80412
239	239	2016	0	0	254.73	0	296140.22	19.58	16600	46.18	0	48812.53	0.000642	2009 Hourl	2016	-4.76	400	0	0	7.552123	31.337644
240	240	2016	0	0	511.01	0	296141.34	39.19	16600	68.32	0	78917.16	0.002618	2009 Hourl	2016	-3.05	400	0	0	91.400148	206.60512
241	241	2016	0.11	0	827.98	0	296140	63.46	16600	147.05	0	107404.83	0.006532	2009 Hourl	2016	-1.53	400	11.927432	0	795.30013	701.56835
242	242	2016	1.12	0	1258.56	0	296141.72	110.56	16600	290.19	0	152039.74	0.008986	2009 Hourl	2016	0	400	167.067712	0	3281.8806	1366.2291
243	243	2016	7.86	0	2042.25	0	296140.97	217.07	16600	460.54	0	208612.21	0.006532	2009 Hourl	2016	1.53	400	852.269232	0	6143.593	1362.655
244	244	2016	27.82	0	2558.64	0	296143.66	371.74	16600	638.73	0	271651.82	0.002618	2009 Hourl	2016	3.05	400	1209.023816	0	4278.5454	711.18446
245	245	2016	150.46	0	3434.09	0	296142.97	814.49	16600	1343.02	0	381223.47	0.000642	2009 Hourl	2016	4.76	400	1603.482312	0	2960.9371	244.74547

No	Production Costs	Reliability Purchases	Emergency Purchases	EUE						Case Probability		
187					2,170,427	39,674	-	1,854,917	275,837	0.002261	72,694,374	77%
188					5,321,493	79,182	-	4,875,092	367,220	0.000791	72,835,776	77%
189					10,943,865	84,162	-	10,335,820	523,883	0.000231	74,649,699	77%
190					309,958	13,114	-	136,668	160,177	0.001909	76,593,401	77%
191					465,052	-	-	242,113	222,938	0.005927	79,624,168	78%
192					1,941,140	129,480	-	1,494,033	317,627	0.009822	82,207,555	79%
193					2,792,597	86,652	-	2,284,108	421,838	0.00763	86,599,260	80%
194					8,903,787	215,136	-	8,118,136	570,515	0.002261	87,964,820	80%
195					15,507,765	464,966	-	14,318,024	724,776	0.000791	88,571,023	80%
196					38,984,936	1,840,608	-	36,160,712	983,616	0.000231	90,309,566	80%
197					88,852	-	-	13,395	75,457	0.001909	94,094,187	80%
198					214,531	-	-	94,372	120,158	0.005927	98,416,062	81%
199					335,680	8,466	-	167,518	159,696	0.009822	98,995,558	82%
200					710,978	26,726	-	478,275	205,977	0.00763	99,617,665	83%
201					1,768,430	54,448	-	1,427,404	286,578	0.002261	102,624,792	83%
202					3,508,142	163,012	-	2,961,672	383,458	0.000791	103,958,743	83%
203					10,907,339	1,461,464	-	8,915,898	529,977	0.000231	111,163,903	83%
204					46,701	-	-	6,260	40,441	0.001909	111,220,968	83%
205					92,200	-	-	28,149	64,052	0.005927	113,151,289	84%
206					132,368	-	-	49,182	83,186	0.009822	120,017,937	85%
207					320,038	-	-	205,293	114,745	0.00763	128,116,668	85%
208					656,433	7,470	-	485,914	163,049	0.002261	131,686,654	86%
209					1,807,025	261,948	-	1,309,311	235,766	0.000791	134,232,169	86%
210					4,129,538	535,682	-	3,273,470	320,386	0.000231	141,560,469	86%
211					250,545	1,494	-	108,526	140,525	0.001909	152,164,386	86%
212					655,192	22,078	-	427,928	205,186	0.005927	152,791,291	86%
213					1,806,620	76,526	-	1,427,086	303,008	0.009822	154,141,004	87%
214					3,739,768	160,522	-	3,169,627	409,619	0.00763	154,307,650	88%
215					8,819,587	567,388	-	7,738,528	513,671	0.002261	155,440,488	88%
216					16,748,959	1,744,992	-	14,352,740	651,227	0.000791	168,609,612	89%
217					41,780,042	6,637,344	-	34,248,253	894,444	0.000231	173,602,129	89%
218					308,976	22,576	-	153,501	132,900	0.001909	178,393,042	89%
219					658,778	32,702	-	437,514	188,561	0.005927	194,691,350	89%
220					1,661,882	147,076	-	1,247,788	267,018	0.009822	201,121,877	90%
221					3,247,420	104,248	-	2,802,097	341,075	0.00763	218,466,770	91%
222					6,242,894	188,742	-	5,612,160	441,992	0.002261	220,083,156	91%
223					12,316,246	521,240	-	11,216,808	578,198	0.000791	233,436,273	91%
224					33,416,283	2,199,998	-	30,445,426	770,860	0.000231	240,920,423	91%
225					721,928	67,728	-	374,651	279,549	0.001909	247,003,123	92%
226					1,556,623	105,410	-	1,056,931	394,282	0.005927	255,710,340	92%
227					4,734,774	344,948	-	3,889,870	499,956	0.009822	267,759,921	93%
228					10,658,320	1,674,940	-	8,324,872	658,509	0.00763	293,640,818	94%
229					24,917,294	5,186,172	-	18,903,921	827,200	0.002261	307,790,568	94%
230					50,432,678	13,472,560	-	35,931,715	1,028,403	0.000791	329,742,447	94%
231					124,939,674	59,749,708	-	63,888,692	1,301,274	0.000231	350,116,554	94%
232					118,946	-	-	24,464	94,482	0.001909	356,130,897	94%
233					220,578	-	-	84,434	136,145	0.005927	380,018,127	95%
234					466,140	-	-	280,034	186,106	0.009822	486,445,455	96%
235					1,163,629	32,868	-	860,367	270,394	0.00763	506,106,199	97%
236					2,987,442	50,630	-	2,581,478	355,334	0.002261	525,352,390	97%
237					4,693,999	39,674	-	4,176,023	478,302	0.000791	620,240,191	97%
238					10,171,976	68,724	-	9,466,485	636,767	0.000231	723,919,443	97%
239					60,576	-	-	11,763	48,813	0	723,919,444	97%
240					113,829	-	-	34,912	78,917	0	723,919,445	98%
241					230,985	1,826	-	121,754	107,405	0	723,919,446	99%
242					535,853	18,592	-	365,222	152,040	0	723,919,447	100%
243					1,279,626	130,476	-	940,538	208,612	0	723,919,448	100%
244					2,367,744	461,812	-	1,634,280	271,652	0	723,919,449	100%
245					7,490,911	2,497,636	-	4,612,052	381,223	0	723,919,450	100%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
1	1	2016	0	0	472.09	0	295300.59	32.7	16600	37.61	0	79386.81	0.000642	1975 Hourly	2016	-4.76	400	0	0	11.398906	50.966332	**333**	**2,570**	**-**	**892**	97,142	-	-	17,755	79,387	0.001909	109,022	0
2	2	2016	0.3	0	786.25	0	295300.91	56.65	16600	117.7	0	118453.1	0.002618	1975 Hourly	2016	-3.05	400	13.03764	0	242.27397	310.11022					215,975	4,980	-	92,542	118,453	0.005927	120,218	1%
3	3	2016	0.65	0	1175.71	0	295304.84	87.68	16600	140.2	0	165805.81	0.006532	1975 Hourly	2016	-1.53	400	70.48028	0	1076.6992	1083.0436					341,430	10,790	-	164,835	165,806	0.009822	143,365	2%
4	4	2016	0	0	1800.52	0	295302.38	151.86	16600	451.41	0	223755.18	0.008986	1975 Hourly	2016	0	400	0	0	7303.5758	2010.664					1,036,528	-	-	812,773	223,755	0.00763	143,920	3%
5	5	2016	0	0	2799.01	0	295297.47	280.51	16600	381.49	0	318129.34	0.006532	1975 Hourly	2016	1.53	400	0	0	6974.8325	2078.0208					1,385,924	-	-	1,067,794	318,129	0.002261	188,646	3%
6	6	2016	2.09	0	3708.45	0	295303.72	481.05	16600	572.44	0	411331.55	0.002618	1975 Hourly	2016	3.05	400	90.828892	0	5557.6609	1076.866					2,568,891	34,694	-	2,122,865	411,332	0.000791	197,708	3%
7	7	2016	3.28	0	5264.89	0	295299.59	1120.74	16600	1255.29	0	554616.86	0.000642	1975 Hourly	2016	4.76	400	34.955616	0	4242.9547	356.06402					7,218,029	54,448	-	6,608,964	554,617	0.000231	203,528	3%
8	8	2016	0	0	489.39	0	296220.66	29.86	16600	72.76	0	105147.37	0.000642	1976 Hourly	2016	-4.76	400	0	0	22.860347	67.504612					140,755	-	-	35,608	105,147	0.001909	209,426	3%
9	9	2016	0	0	762.93	0	296217.66	48.62	16600	121.25	0	155225.07	0.002618	1976 Hourly	2016	-3.05	400	0	0	242.17878	406.37923					247,730	-	-	92,505	155,225	0.005927	214,991	4%
10	10	2016	0	0	901.27	0	296223.19	63.66	16600	155.25	0	194124.46	0.006532	1976 Hourly	2016	-1.53	400	0	0	913.9716	1268.021					334,047	-	-	139,922	194,124	0.009822	224,473	5%
11	11	2016	0.4	0	1530.42	0	296220.44	123.12	16600	358.66	0	261557.77	0.008986	1976 Hourly	2016	0	400	59.66704	0	4932.4193	2350.3581					817,098	6,640	-	548,900	261,558	0.00763	228,248	5%
12	12	2016	0	0	2064.59	0	296215.75	207.81	16600	526.64	0	334121.74	0.006532	1976 Hourly	2016	1.53	400	0	0	7102.2154	2182.4832					1,421,417	-	-	1,087,296	334,122	0.002261	229,283	6%
13	13	2016	3.5	0	3307.27	0	296018.47	446.06	16600	1101.64	0	449245.78	0.002618	1976 Hourly	2016	3.05	400	152.1058	0	9538.476	1176.1255					4,150,767	58,100	-	3,643,421	449,246	0.000791	242,500	6%
14	14	2016	2.42	0	4145.82	0	296216.97	833.74	16600	1452.37	0	575178.28	0.000642	1976 Hourly	2016	4.76	400	25.790424	0	3865.6519	369.26446					6,636,615	40,172	-	6,021,265	575,178	0.000231	250,277	6%
15	15	2016	0.67	0	830.23	0	295305.47	63.38	16600	88.56	0	186743.54	0.000642	1977 Hourly	2016	-4.76	400	7.140324	0	47.203158	119.88935					271,391	11,122	-	73,525	186,744	0.001909	277,692	6%
16	16	2016	0.54	0	1548.65	0	295302.84	108.01	16600	97.76	0	269037.38	0.002618	1977 Hourly	2016	-3.05	400	23.467752	0	396.35479	704.33986					429,397	8,964	-	151,396	269,037	0.005927	291,005	6%
17	17	2016	1.27	0	2316.61	0	295302.88	172.93	16600	180.8	0	361394.63	0.006532	1977 Hourly	2016	-1.53	400	137.707624	0	2735.8831	2360.6297					801,320	21,082	-	418,843	361,395	0.009822	353,134	7%
18	18	2016	4.86	0	3661.9	0	295303.72	296.18	16600	381.61	0	496173.74	0.008986	1977 Hourly	2016	0	400	724.954536	0	12557.195	4458.6172					1,974,267	80,676	-	1,397,418	496,174	0.00763	355,667	8%
19	19	2016	35.82	0	5446.69	0	295301.09	614.15	16600	559.92	0	656930.37	0.006532	1977 Hourly	2016	1.53	400	3884.005584	0	19920.71	4291.0692					4,301,253	594,612	-	3,049,711	656,930	0.002261	380,649	8%
20	20	2016	119.89	0	7483.55	0	295302.03	1204	16600	903.67	0	852247.37	0.002618	1977 Hourly	2016	3.05	400	5210.275532	0	17704.643	2231.1836					9,605,081	1,990,174	-	6,762,660	852,247	0.000791	425,126	9%
21	21	2016	670.4	0	10621.62	0	295300.09	2860.8	16600	1401.61	0	1135093.1	0.000642	1977 Hourly	2016	4.76	400	7144.58688	0	9557.6908	728.72978					27,151,102	11,128,640	-	14,887,369	1,135,093	0.000231	443,005	9%
22	22	2016	0.06	0	466.4	0	295303.28	33.03	16600	59.39	0	103678.99	0.000642	1978 Hourly	2016	-4.76	400	0.639432	0	17.783076	66.561912					132,374	996	-	27,699	103,679	0.001909	459,794	9%
23	23	2016	0.24	0	761.87	0	295304.81	54.71	16600	72.42	0	154113.43	0.002618	1978 Hourly	2016	-3.05	400	10.430112	0	144.44717	403.46896					213,272	3,984	-	55,175	154,113	0.005927	464,875	9%
24	24	2016	0.88	0	1306.82	0	295297.44	95.63	16600	196.93	0	213145.2	0.006532	1978 Hourly	2016	-1.53	400	95.419456	0	1681.0237	1392.2644					485,105	14,608	-	257,352	213,145	0.009822	478,024	10%
25	25	2016	2.67	0	1978.73	0	295305.03	173.91	16600	575.67	0	292750.41	0.008986	1978 Hourly	2016	0	400	398.277492	0	10235.912	2630.6552					1,476,168	44,322	-	1,139,095	292,750	0.00763	527,816	11%
26	26	2016	16.36	0	2834.49	0	295301.81	312.74	16600	747.6	0	386417.2	0.006532	1978 Hourly	2016	1.53	400	1773.934432	0	13841.731	2524.0772					2,777,058	271,576	-	2,119,065	386,417	0.002261	528,488	11%
27	27	2016	46.81	0	4021.34	0	295299.69	617.59	16600	1135.96	0	514721.79	0.002618	1978 Hourly	2016	3.05	400	2034.306428	0	11959.237	1347.5416					5,859,849	777,046	-	4,568,081	514,722	0.000791	657,945	11%
28	28	2016	160.76	0	5526.65	0	295305.53	1353.47	16600	1737.71	0	683992.77	0.000642	1978 Hourly	2016	4.76	400	1713.251472	0	6165.585	439.12336					12,956,324	2,668,616	-	9,603,715	683,993	0.000231	686,032	11%
29	29	2016	0	0	352.65	0	295929.81	21.7	16600	53.7	0	93690.52	0.000642	1979 Hourly	2016	-4.76	400	0	0	12.15775	60.149314					112,628	-	-	18,937	93,691	0.001909	704,430	12%
30	30	2016	0	0	491.84	0	295927.66	35.86	16600	254.57	0	131844.45	0.002618	1979 Hourly	2016	-3.05	400	0	0	327.79378	345.16877					257,052	-	-	125,208	131,844	0.005927	722,238	12%
31	31	2016	1.6	0	1140.4	0	295927.38	80.88	16600	255.87	0	194148.66	0.006532	1979 Hourly	2016	-1.53	400	173.48992	0	1905.9994	1268.179					512,503	26,560	-	291,794	194,149	0.009822	733,829	13%
32	32	2016	1.39	0	1476.22	0	295929.91	135.9	16600	414.95	0	254520.09	0.008986	1979 Hourly	2016	0	400	207.342964	0	5504.4416	2287.1175					890,152	23,074	-	612,557	254,520	0.00763	741,486	14%
33	33	2016	1.76	0	2177.2	0	295932.41	222.42	16600	618.89	0	343472.04	0.006532	1979 Hourly	2016	1.53	400	190.838912	0	8801.5258	2243.5594					1,720,135	29,216	-	1,347,447	343,472	0.002261	747,370	14%
34	34	2016	1.28	0	2778.46	0	295930.09	382.51	16600	782.11	0	437162.73	0.002618	1979 Hourly	2016	3.05	400	55.627264	0	5689.0746	1144.492					2,631,472	21,248	-	2,173,061	437,163	0.000791	771,253	14%
35	35	2016	13.81	0	4255.48	0	295931.56	909.76	16600	1602.75	0	589171.41	0.000642	1979 Hourly	2016	4.76	400	147.175932	0	4378.7421	378.24805					7,638,888	229,246	-	6,820,471	589,171	0.000231	773,594	14%
36	36	2016	1.16	0	1729.88	0	295479.31	107.5	16600	72.53	0	175879.62	0.000642	1980 Hourly	2016	-4.76	400	12.362352	0	80.550582	112.91472					320,604	19,256	-	125,468	175,880	0.001909	779,958	14%
37	37	2016	0.95	0	2367.4	0	295482.19	156.17	16600	104.47	0	249590.17	0.002618	1980 Hourly	2016	-3.05	400	41.28586	0	647.48972	653.42707					512,682	15,770	-	247,322	249,590	0.005927	828,854	15%
38	38	2016	2.53	0	3597.87	0	295480.69	258.84	16600	241.22	0	335645.57	0.006532	1980 Hourly	2016	-1.53	400	274.330936	0	5668.9804	2192.4369					1,245,522	41,998	-	867,878	335,646	0.009822	872,140	16%
39	39	2016	7.1	0	5398.97	0	295483.25	463.04	16600	573.87	0	450295.27	0.008986	1980 Hourly	2016	0	400	1059.08996	0	27841.386	4046.3533					3,666,462	117,860	-	3,098,307	450,295	0.00763	902,862	17%
40	40	2016	25.32	0	7295.19	0	295480.59	827.19	16600	720.33	0	567701.62	0.006532	1980 Hourly	2016	1.53	400	2745.477984	0	34325.296	3708.227					6,242,958	420,312	-	5,254,944	567,702	0.002261	943,531	17%
41	41	2016	93.58	0	10412.3	0	295482.44	1697.28	16600	1197.22	0	751435.79	0.002618	1980 Hourly	2016	3.05	400	4066.874504	0	32635.501	1967.2589					14,770,678	1,553,428	-	12,465,814	751,436	0.000791	999,497	17%
42	42	2016	330.98	0	14602.89	0	295482.25	3696.06	16600	2136	0	996260.17	0.000642	1980 Hourly	2016	4.76	400	3527.320056	0	20025.118	639.59903					37,682,301	5,494,268	-	31,191,773	996,260	0.000231	1,109,237	17%
43	43	2016	0	0	207.75	0	296013.88	17.57	16600	42.92	0	63764.57	0.000642	1981 Hourly	2016	-4.76	400	0	0	5.7244765	40.936854					72,681	-	-	8,917	63,765	0.001909	1,132,014	17%
44	44	2016	0	0	537.55	0	296013.03	37.59	16600	80.65	0	99772.42	0.002618	1981 Hourly	2016	-3.05	400	0	0	113.49922	261.2042					143,126	-	-	43,353	99,772	0.005927	1,192,000	18%
45	45	2016	0	0	707.83	0	296011.75	56.42	16600	207.85	0	133772.88	0.006532	1981 Hourly	2016	-1.53	400	0	0	961.00394	873.80445					280,895	-	-	147,122	133,773	0.009822	1,193,734	19%
46	46	2016	2.14	0	1128.61	0	296012.22	97.59	16600	334.6	0	194497.06	0.008986	1981 Hourly	2016	0	400	319.218664	0	3393.4093	1747.7506					607,654	35,524	-	377,633	194,497	0.00763	1,245,870	20%
47	47	2016	5.14	0	1692.51	0	296013.44	167.12	16600	399.07	0	260957.22	0.006532	1981 Hourly	2016	1.53	400	557.336368	0	4411.9085	1704.5726					1,021,711	85,324	-	675,430	260,957	0.002261	1,320,162	20%
48	48	2016	9.35	0	2499.22	0	296011.53	347.48	16600	954.32	0	342221.61	0.002618	1981 Hourly	2016	3.05	400	406.33978	0	6244.0756	895.93617					2,882,487	155,210	-	2,385,056	342,222	0.000791	1,350,031	20%
49	49	2016	33.28	0	3884.3	0	294904.69	838.89	16600	1203.93	0	493551.6	0.000642	1981 Hourly	2016	4.76	400	354.671616	0	3002.265	316.86013					5,722,425	552,448	-	4,676,425	493,552	0.000231	1,354,764	20%
50	50	2016	0	0	241.98	0	296814.22	20.48	16600	25.73	0	83815.07	0.000642	1982 Hourly	2016	-4.76	400	0	0	3.9971853	53.809275					90,041	-	-	6,226	83,815	0.001909	1,356,709	20%
51	51	2016	0	0	455.99	0	296815.06	33.78	16600	85.02	0	121596.88	0.002618	1982 Hourly	2016	-3.05	400	0	0	101.49533	318.34063					160,365	-	-	38,768	121,597	0.005927	1,378,640	21%
52	52	2016	0.33	0	760.79	0	296817.69	57.66	16600	119.55	0	169913.76	0.006532	1982 Hourly	2016	-1.53	400	35.782296	0	594.10137	1109.8767					266,344	5,478	-	90,952	169,914	0.009822	1,421,904	22%
53	53	2016	0.05	0	1107.98	0	296814.75	93.64	16600	212.37	0	237607.76	0.008986	1982 Hourly	2016	0	400	7.45838	0	2114.4212	2135.1433					473,739	830	-	235,302	237,608	0.00763	1,676,255	23%
54	54	2016	2.68	0	1695.78	0	296813.97	167.92	16600	511.23	0	315067.62	0.006532	1982 Hourly	2016	1.53	400	290.595616	0	5662.8103	2058.0217					1,226,489	44,488	-	866,934	315,068	0.002261	1,729,401	23%
55	55	2016	23.75	0	2616.97	0	296813.78	357.75	16600	585.49	0	423951.71	0.002618	1982 Hourly	2016	3.05	400	1032.1465	0	4011.3252	1109.9056					2,350,411	394,250	-	1,532,210	423,952	0.000791	1,742,479	23%
56	56	2016	104.2	0	3876.68	0	296814.25	916.3	16600	1324.58	0	556789.02	0.000642	1982 Hourly	2016	4.76	400	1110.48024	0	3296.6525	357.45855					7,421,482	1,729,720	-	5,134,973	556,789	0.000231	1,850,406	23%
57	57	2016	2.99	0	4995.88	0	295752.91	284.95	16600	90.06	0	318038.7	0.000642	1983 Hourly	2016	-4.76	400	31.865028	0	288.85439	204.18085					817,602	49,634	-	449,929	318,039	0.001909	1,941,428	23%
58	58	2016	18.6	0	7211.33	0	295759.59	447.87	16600	214.85	0	413330.52	0.002618	1983 Hourly	2016	-3.05	400	808.33368	0	4056.2094	1082.0993					2,271,445	308,760	-	1,549,354	413,331	0.005927	2,036,736	24%
59	59	2016	61.47	0	10783.44	0	295760.69	854.86	16600	323.23	0	550136	0.006532	1983 Hourly	2016	-1.53	400	6665.265864	0	22767.491	3593.4884					5,056,069	1,020,402	-	3,485,531	550,136	0.009822	2,041,425	25%
60	60	2016	299.67	0	13348.38	0	295759.31	1834.73	16600	600.33	0	683946.21	0.008986	1983 Hourly	2016	0	400	44701.05469	0	72008.709	6145.9406					13,671,901	4,974,522	-	8,013,433	683,946	0.00763	2,092,130	25%
61	61	2016	1048.43	0	17455.4	0	295761.44	3999.78	16600	1236.83	0	893502.64	0.006532	1983 Hourly	2016	1.53	400	113682.523	0	141021.72	5836.3592					39,886,803	17,403,938	-	21,589,362	893,503	0.002261	2,188,714	26%
62	62	2016	3756.47	0	18391.11	0	295755.91	6734.53	16600	1818.22	0	1077606.6	0.002618	1983 Hourly	2016	3.05	400	163251.6784	0	87543.522	2821.174					96,874,093	62,357,402	-	33,439,084	1,077,607	0.000791	2,195,207	26%
63	63	2016	9617.55	0	18335.4	0	295757.06	9610.5	16600	2205.14	0	1361912.8	0.000642	1983 Hourly	2016	4.76	400	102496.1539	0	25957.424	874.34802					201,445,367	159,651,330	-	40,432,124	1,361,913	0.000231	2,227,632	26%
64	64	2016	0	0	485.23	0	295299.5	29.01	16600	111.21	0	77556.33	0.000642	1984 Hourly	2016	-4.76	400	0	0	34.643879	49.791164					131,519	-	-	53,962	77,556	0.001909	2,411,082	26%
65	65	2016	0	0	666.01	0	295300.22	46	16600	133.66	0	117317.71	0.002618	1984 Hourly	2016	-3.05	400	0	0	233.05147	307.13776					206,337	-	-	89,019	117,318	0.005927	2,444,724	26%
66	66	2016	0	0	1215.91	0	295300.97	87.34	16600	387.6	0	169268.55	0.006532	1984 Hourly	2016	-1.53	400	0	0	3078.4448	1105.6622					640,555	-	-	471,287	169,269	0.009822	2,503,670	27%
67	67	2016	0.08	0	1372.2	0	295302.31	109.26	16600	307.57	0	207078.08	0.008986	1984 Hourly	2016	0	400	11.933408	0	3792.5193	1860.8036					630,454	1,328	-	422,048	207,078	0.00763	2,535,728	28%
68	68	2016	0.94	0	1704.88	0	295302.62	172.6	16600	700.55	0	269736.8	0.006532	1984 Hourly	2016	1.53	400	101.925328	0	7801.5183	1761.9208					1,479,694	15,604	-	1,194,354	269,737	0.002261	2,548,812	28%
69	69	2016	15.11	0	2781.97	0	295299.34	381.01	16600	1077.95	0	374122.54	0.002618	1984 Hourly	2016	3.05	400	656.662468	0	7850.9227	979.45281					3,623,773	250,826	-	2,998,825	374,123	0.000791	2,617,251	29%
70	70	2016	57.5	0	4090.02	0	295302.25	847.85	16600	1685.8	0	510962.03	0.000642	1984 Hourly	2016	4.76	400	612.789	0	4426.5616	328.03762					8,360,418	954,500	-	6,894,956	510,962	0.000231	2,627,493	29%
71	71	2016	0	0	164.17	0	295932.41	13.06	16600	25.54	0	51189.55	0.000642	1985 Hourly	2016	-4.76	400	0	0	2.691843	32.863691					55,382	-	-	4,193	51,190	0.001909	2,661,838	29%
72	72	2016	0	0	325.97	0	295931.59	21.89	16600	65.24	0	79183.45	0.002618	1985 Hourly	2016	-3.05	400	0	0	55.675128	207.30227					100,450	-	-	21,266	79,183	0.005927	2,891,157	29%
73	73	2016	4.36	0	548.79	0	295931.62	47.69	16600	680.8	0	106402.93	0.006532	1985 Hourly	2016	-1.53	400	472.760032	0	2440.4612	695.02394					552,395	72,376	-	373,616	106,403	0.009822	2,938,201	30%
74	74	2016	0.21	0	887.03	0	295930.34	70.12	16600	438.26	0	155717.24	0.008986	1985 Hourly	2016	0	400	31.325196	0	3493.3054	1399.2751					547,953	3,486	-	388,750	155,717	0.00763	3,219,947	31%
75	75	2016	2.53	0	1294.83	0	295930.56	146.84	16600	792.19	0	209756.7	0.006532	1985 Hourly	2016	1.53	400	274.330936	0	6700.208	1370.1308					1,277,506	41,998	-	1,025,751	209,757	0.002261	3,538,075	31%
76	76	2016	0.41	0	1565.81	0	295929.53	209.83	16600	696.32	0	279297.09	0.002618	1985 Hourly	2016	3.05	400	17.818108	0	2854.418	731.19978					1,376,408	6,806	-	1,090,305	279,297	0.000791	3,677,336	31%
77	77	2016	1.99	0	2287.46	0	295930.25	441.5	16600	1270.5	0	381144.4	0.000642	1985 Hourly	2016	4.76	400	21.207828	0	1865.7919	244.6947					3,320,396	33,034	-	2,906,218	381,144	0.000231	3,686,640	31%
78	78	2016	0	0	1242.82	0	295849.72	72.51	16600	175.74	0	144469.81	0.000642	1986 Hourly	2016	-4.76	400	0	0	140.22127	92.749618					362,883	-	-	218,413	144,470	0.001909	3,780,047	32%
79	79	2016	0	0	1571.68	0	295845.41	97.25	16600	95.55	0	192394.5	0.002618	1986 Hourly	2016	-3.05	400	0	0	393.15559	503.6888					342,569	-	-	150,174	192,395	0.005927	3,845,735	32%
80	80	2016	0.88	0	2583.83	0	295845.97	176.04	16600	233.42	0	265562.72	0.006532	1986 Hourly	2016	-1.53	400	95.419456	0	3939.5642	1734.6557					883,288	14,608	-	603,118	265,563	0.009822	4,130,755	33%
81	81	2016	0	0	3387.25	0	295850.59	283.48	16600	388.73	0	340730.74	0.008986	1986 Hourly	2016	0	400	0	0	11832.097	3061.8064					1,657,456	-	-	1,316,726	340,731	0.00763	4,130,838	34%
82	82	2016	0.87	0	4794.35	0	295843.47	490.82	16600	917.99	0	439354.77	0.006532	1986 Hourly	2016	1.53	400	94.335144	0	28748.412	2869.8654					4,854,962	14,442	-	4,401,165	439,355	0.002261	4,350,615	34%
83	83	2016	10.13	0	7278.06	0	295843	993.91	16600	1718.26	0	571749.06	0.002618	1986 Hourly	2016	3.05	400	440.237644	0	32739.659	1496.839					13,245,506	168,158	-	12,505,599	571,749	0.000791	4,391,543	34%
84	84	2016	2.26	0	9562.09	0	295846.31	1863.78	16600	2430.42	0	753860.37	0.000642	1986 Hourly	2016	4.76	400	24.085272	0	14920.012	483.97836					24,031,271	37,516	-	23,239,895	753,860	0.000231	4,466,305	34%
85	85	2016	0	0	763.77	0	296563	52.19	16600	50.33	0	122189.71	0.000642	1987 Hourly	2016	-4.76	400	0	0	24.678829	78.445794					160,630	-	-	38,441	122,190	0.001909	4,718,059	34%
86	86	2016	0.85	0	1375.15	0	296560.25	90.88	16600	118.43	0	174175.96	0.002618	1987 Hourly	2016	-3.05	400	36.93998	0	426.3649	455.99266					351,145	14,110	-	162,859	174,176	0.005927	5,237,078	35%
87	87	2016	0.52	0	1777.64	0	296563.81	136.01	16600	181.65	0	234736.41	0.006532	1987 Hourly	2016	-1.53	400	56.384224	0	2109.2371	1533.2982					566,277	8,632	-	322,908	234,736	0.009822	5,490,119	36%
88	88	2016	0.58	0	2806.07	0	296563.81	221.74	16600	238.59	0	321504.78	0.008986	1987 Hourly	2016	0	400	86.517208	0	6016.1292	2889.042					1,000,633	9,628	-	669,500	321,505	0.00763	5,797,910	37%
89	89	2016	3.18	0	4058.82	0	296562.59	420.04	16600	660.42	0	422690.16	0.006532	1987 Hourly	2016	1.53	400	344.811216	0	17509.195	2761.0121					3,156,004	52,788	-	2,680,526	422,690	0.002261	5,842,819	37%
90	90	2016	7.24	0	5933.51	0	296561.34	822.64	16600	1067.14	0	557222.03	0.002618	1987 Hourly	2016	3.05	400	314.641712	0	16576.877	1458.8073					7,009,292	120,184	-	6,331,886	557,222	0.000791	5,875,578	37%
91	91	2016	13.33	0	7651.16	0	296562.34	1632.92	16600	1659.81	0	705796.91	0.000642	1987 Hourly	2016	4.76	400	142.060476	0	8153.0609	453.12162					13,626,547	221,278	-	12,699,472	705,797	0.000231	6,082,609	37%
92	92	2016	0	0	2337.56	0	296984.41	146.06	16600	60.54	0	211604.99	0.000642	1988 Hourly	2016	-4.76	400	0	0	90.853197	135.8504					353,121	-	-	141,516	211,605	0.001909	6,195,418	37%
93	93	2016	2.21	0	3758.9	0	296981.81	250.89	16600	133.25	0	303398.97	0.002618	1988 Hourly	2016	-3.05	400	96.043948	0	1311.2866	794.2985					840,958	36,686	-	500,873	303,399	0.005927	6,483,090	38%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
94	94	2016	15.01	0	5948.08	0	296980.72	424.71	16600	365.98	0	402396.96	0.006532	1988 Hourl	2016	-1.53	400	1627.552312	0	14219.369	2628.4569					2,828,441	249,166	-	2,176,878	402,397	0.009822	6,508,522	39%
95	95	2016	15.5	0	9658.69	0	296983.78	798.43	16600	600.33	0	555934.72	0.008986	1988 Hourl	2016	0	400	2312.0978	0	52104.435	4995.6294					6,611,636	257,300	-	5,798,401	555,935	0.00763	6,863,782	40%
96	96	2016	58.77	0	12521.02	0	296983.59	1407.22	16600	834.98	0	704249.55	0.006532	1988 Hourl	2016	1.53	400	6372.501624	0	68290.762	4600.1581					12,134,633	975,582	-	10,454,801	704,250	0.002261	6,910,469	40%
97	97	2016	156.51	0	16921.06	0	296982.91	2842.3	16600	1280.9	0	885031.99	0.002618	1988 Hourl	2016	3.05	400	6801.736788	0	56743.018	2317.0137					25,157,284	2,598,066	-	21,674,186	885,032	0.000791	7,038,401	40%
98	98	2016	618.53	0	23020.6	0	296984.59	6094.61	16600	2328.09	0	1171678.4	0.000642	1988 Hourl	2016	4.76	400	6591.797916	0	34407.366	752.21753					65,033,305	10,267,598	-	53,594,029	1,171,678	0.000231	7,272,700	40%
99	99	2016	0	0	277.3	0	295300.84	21.4	16600	41.06	0	71605.51	0.000642	1989 Hourl	2016	-4.76	400	0	0	7.3097722	45.970737					82,991	-	-	11,386	71,606	0.001909	7,775,271	40%
100	100	2016	0	0	508.89	0	295304.16	39.23	16600	51.37	0	109539.07	0.002618	1989 Hourl	2016	-3.05	400	0	0	68.438916	286.77329					135,681	-	-	26,142	109,539	0.005927	7,833,435	41%
101	101	2016	0	0	907.07	0	295302.44	69.65	16600	127.14	0	159659.26	0.006532	1989 Hourl	2016	-1.53	400	0	0	753.30211	1042.8943					274,984	-	-	115,325	159,659	0.009822	7,999,972	42%
102	102	2016	0.01	0	1347.64	0	295303.84	112.86	16600	260.34	0	209527.81	0.008986	1989 Hourl	2016	0	400	1.491676	0	3152.6896	1882.8169					560,538	166	-	350,845	209,528	0.00763	8,045,866	43%
103	103	2016	0.95	0	2122.05	0	295302.22	211.76	16600	396.55	0	296574.41	0.006532	1989 Hourl	2016	1.53	400	103.00964	0	5496.671	1937.224					1,153,843	15,770	-	841,499	296,574	0.002261	8,163,169	43%
104	104	2016	1.1	0	3247.39	0	295303.94	450.05	16600	723.58	0	393032.56	0.002618	1989 Hourl	2016	3.05	400	47.80468	0	6151.6362	1028.9592					2,761,039	18,260	-	2,349,746	393,033	0.000791	8,231,151	43%
105	105	2016	15.34	0	4828.85	0	295301.22	980.01	16600	1628.52	0	526577.06	0.000642	1989 Hourl	2016	4.76	400	163.481448	0	5048.6102	338.06247					8,645,100	254,644	-	7,863,879	526,577	0.000231	9,369,223	43%
106	106	2016	0.32	0	825.16	0	295302.88	53.54	16600	58.52	0	83165.3	0.000642	1990 Hourl	2016	-4.76	400	3.410304	0	31.001129	53.392123					136,766	5,312	-	48,288	83,165	0.001909	9,397,053	43%
107	107	2016	0.46	0	1264.34	0	295301.53	83.15	16600	102.53	0	115283.8	0.002618	1990 Hourl	2016	-3.05	400	19.991048	0	339.37862	301.81299					252,553	7,636	-	129,633	115,284	0.005927	9,547,561	44%
108	108	2016	1.36	0	2206.88	0	295307.09	152.11	16600	268.4	0	160910.57	0.006532	1990 Hourl	2016	-1.53	400	147.466432	0	3869.0773	1051.0678					775,813	22,576	-	592,327	160,911	0.009822	9,655,956	45%
109	109	2016	10.54	0	3068.59	0	295304.62	273.78	16600	644.26	0	213865.39	0.008986	1990 Hourl	2016	0	400	1572.226504	0	17765.051	1921.7944					2,365,799	174,964	-	1,976,970	213,865	0.00763	9,754,034	45%
110	110	2016	22.92	0	4446.2	0	295300.5	547.71	16600	740.12	0	280343.68	0.006532	1990 Hourl	2016	1.53	400	2485.243104	0	21494.993	1831.2049					3,951,537	380,472	-	3,290,722	280,344	0.002261	10,384,152	46%
111	111	2016	140.65	0	6334.98	0	295300.84	1148.55	16600	1801.59	0	363023.39	0.002618	1990 Hourl	2016	3.05	400	6112.48022	0	29879.33	950.39524					14,110,850	2,334,790	-	11,413,037	363,023	0.000791	10,576,179	46%
112	112	2016	388.89	0	7950.86	0	295302.69	2331.21	16600	2342.71	0	472589.58	0.000642	1990 Hourl	2016	4.76	400	4144.478508	0	11958.251	303.40251					25,554,723	6,455,574	-	18,626,559	472,590	0.000231	10,594,032	46%
113	113	2016	0	0	1398.16	0	296218.81	83.32	16600	63.34	0	177904.1	0.000642	1991 Hourl	2016	-4.76	400	0	0	56.85517	114.21443					266,464	-	-	88,559	177,904	0.001909	11,306,273	46%
114	114	2016	0	0	1984.62	0	296216.56	129.66	16600	137.87	0	232863.1	0.002618	1991 Hourl	2016	-3.05	400	0	0	716.33601	609.6356					506,483	-	-	273,620	232,863	0.005927	11,548,795	46%
115	115	2016	0.7	0	2880.14	0	296215.94	196.43	16600	218.39	0	306286.12	0.006532	1991 Hourl	2016	-1.53	400	75.90184	0	4108.5873	2000.6609					946,900	11,620	-	628,994	306,286	0.009822	11,908,476	47%
116	116	2016	0.57	0	4916.13	0	296215.34	409.1	16600	595.23	0	414844.79	0.008986	1991 Hourl	2016	0	400	85.025532	0	26295.085	3727.7953					3,350,535	9,462	-	2,926,228	414,845	0.00763	11,989,541	48%
117	117	2016	4.55	0	6276.23	0	296217.28	657.54	16600	868.84	0	524518.44	0.006532	1991 Hourl	2016	1.53	400	493.36196	0	35619.255	3426.1545					6,053,088	75,530	-	5,453,040	524,518	0.002261	12,247,502	48%
118	118	2016	21.9	0	8563.43	0	296218.19	1214.53	16600	1450.03	0	667645.09	0.002618	1991 Hourl	2016	3.05	400	951.74772	0	32508.309	1747.8948					13,448,415	363,540	-	12,417,230	667,645	0.000791	12,524,581	49%
119	119	2016	90.06	0	11481.8	0	296214.59	2450.15	16600	2267.13	0	862934.26	0.000642	1991 Hourl	2016	4.76	400	959.787432	0	16711.731	554.00379					28,388,663	1,494,996	-	26,030,733	862,934	0.000231	13,887,491	49%
120	120	2016	0	0	160.72	0	295303.09	11.3	16600	48.14	0	43997.18	0.000642	1992 Hourl	2016	-4.76	400	0	0	4.967193	28.24619					51,734	-	-	7,737	43,997	0.001909	15,002,594	49%
121	121	2016	0	0	273.88	0	295306.19	22.31	16600	81.76	0	64947.99	0.002618	1992 Hourl	2016	-3.05	400	0	0	58.623379	170.03384					87,340	-	-	22,392	64,948	0.005927	15,279,847	49%
122	122	2016	0.26	0	427.71	0	295304.56	36.69	16600	150.94	0	96642.96	0.006532	1992 Hourl	2016	-1.53	400	28.192112	0	421.69643	631.27181					165,518	4,316	-	64,559	96,643	0.009822	15,736,127	50%
123	123	2016	1.43	0	779.46	0	295303.47	68.72	16600	288.25	0	128833.01	0.008986	1992 Hourl	2016	0	400	213.309668	0	2018.9686	1157.6934					377,250	23,738	-	224,679	128,833	0.00763	16,020,383	51%
124	124	2016	1.91	0	1179.58	0	295302.41	114.02	16600	367.91	0	174232.8	0.006532	1992 Hourl	2016	1.53	400	207.103592	0	2834.7526	1138.0886					639,918	31,706	-	433,979	174,233	0.002261	16,118,748	51%
125	125	2016	11.91	0	1540.42	0	295305	202.42	16600	814.13	0	228112.76	0.002618	1992 Hourl	2016	3.05	400	517.594308	0	3283.2394	597.19921					1,679,921	197,706	-	1,254,102	228,113	0.000791	16,326,879	51%
126	126	2016	49.59	0	2084.99	0	295302.5	471.42	16600	1282.08	0	309055.23	0.000642	1992 Hourl	2016	4.76	400	528.490548	0	1716.1456	198.41346					3,805,373	823,194	-	2,673,124	309,055	0.000231	16,426,661	51%
127	127	2016	0	0	823.13	0	296391.94	57.61	16600	53.58	0	120067.72	0.000642	1993 Hourl	2016	-4.76	400	0	0	28.314322	77.083476					164,171	-	-	44,103	120,068	0.001909	16,459,700	52%
128	128	2016	0	0	1423.8	0	296389.09	96.83	16600	95.03	0	180105.29	0.002618	1993 Hourl	2016	-3.05	400	0	0	354.22512	471.51565					315,409	-	-	135,304	180,105	0.005927	17,515,262	52%
129	129	2016	0	0	2070.26	0	296391.62	150.63	16600	144.16	0	248008.18	0.006532	1993 Hourl	2016	-1.53	400	0	0	1949.4668	1619.9894					546,457	-	-	298,449	248,008	0.009822	18,203,651	53%
130	130	2016	3.96	0	3368.45	0	296389.81	276.43	16600	302.4	0	334052.41	0.008986	1993 Hourl	2016	0	400	590.703696	0	9153.3129	3001.795					1,418,408	65,736	-	1,018,619	334,052	0.00763	18,469,509	54%
131	131	2016	3.98	0	5115.08	0	296387.91	554.2	16600	594.93	0	457154.58	0.006532	1993 Hourl	2016	1.53	400	431.556176	0	19877.624	2986.1337					3,566,337	66,068	-	3,043,115	457,155	0.002261	18,546,480	54%
132	132	2016	21.37	0	6773.35	0	296390.62	960.52	16600	1011.64	0	580154.63	0.002618	1993 Hourl	2016	3.05	400	928.714556	0	17939.038	1518.8448					7,787,088	354,742	-	6,852,192	580,155	0.000791	18,628,799	54%
133	133	2016	100.46	0	9676.64	0	296389.25	2251.18	16600	1682.23	0	769229.17	0.000642	1993 Hourl	2016	4.76	400	1070.622312	0	10450.69	493.84513					18,715,199	1,667,636	-	16,278,334	769,229	0.000231	19,954,558	54%
134	134	2016	0.08	0	414.96	0	295753.44	34.78	16600	28.49	0	92987.44	0.000642	1994 Hourl	2016	-4.76	400	0.852576	0	7.5898591	59.697936					106,138	1,328	-	11,822	92,987	0.001909	20,370,709	54%
135	135	2016	0	0	897.99	0	295759.53	63.03	16600	75.38	0	142972.52	0.002618	1994 Hourl	2016	-3.05	400	0	0	177.21369	374.30206					210,663	-	-	67,690	142,973	0.005927	20,655,614	55%
136	136	2016	0.02	0	1324.09	0	295750.97	99.27	16600	136.37	0	196469.18	0.006532	1994 Hourl	2016	-1.53	400	2.168624	0	1179.4581	1283.3367					377,367	332	-	180,566	196,469	0.009822	20,799,395	56%
137	137	2016	0.14	0	1929.5	0	295755	154.97	16600	196.09	0	273245.57	0.008986	1994 Hourl	2016	0	400	20.883464	0	3399.9039	2455.3847					653,925	2,324	-	378,356	273,246	0.00763	21,647,400	57%
138	138	2016	3.33	0	3010.4	0	295756.94	311.13	16600	484.42	0	359868.22	0.006532	1994 Hourl	2016	1.53	400	361.075896	0	9525.6023	2350.6592					1,873,444	55,278	-	1,458,298	359,868	0.002261	22,378,108	57%
139	139	2016	25.94	0	4925.21	0	295756.06	683.5	16600	1057.09	0	498135.06	0.002618	1994 Hourl	2016	3.05	400	1127.321272	0	13630.33	1304.1176					6,135,129	430,604	-	5,206,390	498,135	0.000791	22,403,865	57%
140	140	2016	79.47	0	6310	0	295755.47	1406.78	16600	1471.85	0	647122.25	0.000642	1994 Hourl	2016	4.76	400	846.927684	0	5962.4938	415.45248					11,253,698	1,319,202	-	9,287,374	647,122	0.000231	22,468,085	57%
141	141	2016	2.51	0	1525.06	0	295485.34	104.39	16600	74.19	0	211213.74	0.000642	1995 Hourl	2016	-4.76	400	26.749572	0	72.638577	135.59922					366,024	41,666	-	113,144	211,214	0.001909	22,712,944	57%
142	142	2016	2.31	0	2697.61	0	295483.91	175.84	16600	142	0	298422.93	0.002618	1995 Hourl	2016	-3.05	400	100.389828	0	1002.8527	781.27123					719,830	38,346	-	383,061	298,423	0.005927	23,215,464	58%
143	143	2016	2.34	0	3904.7	0	295481.44	265.99	16600	244	0	400859.23	0.006532	1995 Hourl	2016	-1.53	400	253.729008	0	6223.3421	2618.4125					1,392,450	38,844	-	952,747	400,859	0.009822	24,989,141	59%
144	144	2016	5.37	0	5954.77	0	295482.75	500.15	16600	446.06	0	531188.9	0.008986	1995 Hourl	2016	0	400	801.030012	0	23868.476	4773.2635					3,276,516	89,142	-	2,656,185	531,189	0.00763	26,409,021	60%
145	145	2016	46.09	0	8760.1	0	295482.44	1041.66	16600	923.57	0	689286.52	0.006532	1995 Hourl	2016	1.53	400	4997.594008	0	52847.574	4502.4195					9,544,946	765,094	-	8,090,566	689,287	0.002261	27,007,798	60%
146	146	2016	147.92	0	11271.85	0	295484.03	1921.87	16600	1268.47	0	886347.03	0.002618	1995 Hourl	2016	3.05	400	6428.425696	0	37432.173	2320.4565					17,639,823	2,455,472	-	14,298,004	886,347	0.000791	27,051,835	60%
147	147	2016	682.95	0	14776.77	0	295481.59	3982.7	16600	2279.38	0	1120714.2	0.000642	1995 Hourl	2016	4.76	400	7278.33474	0	21623.763	719.49852					46,139,558	11,336,970	-	33,681,874	1,120,714	0.000231	27,877,290	60%
148	148	2016	0.16	0	390.54	0	295393.72	27.05	16600	49.31	0	78887.65	0.000642	1996 Hourl	2016	-4.76	400	1.705152	0	12.363333	50.645871					100,801	2,656	-	19,258	78,888	0.001909	28,433,145	60%
149	149	2016	0.89	0	649.63	0	295391.88	44.74	16600	97.91	0	114540.52	0.002618	1996 Hourl	2016	-3.05	400	38.678332	0	166.51861	299.86708					192,920	14,774	-	63,605	114,541	0.005927	29,053,865	61%
150	150	2016	1.31	0	1173.51	0	295390.94	81.39	16600	241	0	170593.91	0.006532	1996 Hourl	2016	-1.53	400	142.044872	0	1847.3535	1114.3194					475,156	21,746	-	282,816	170,594	0.009822	32,023,523	62%
151	151	2016	1.18	0	1605.14	0	295389.16	130.92	16600	283.72	0	225268.92	0.008986	1996 Hourl	2016	0	400	176.017768	0	4092.3171	2024.2665					700,267	19,588	-	455,410	225,269	0.00763	32,060,835	63%
152	152	2016	0.68	0	2067.3	0	295389.97	204.67	16600	435.27	0	284840.4	0.006532	1996 Hourl	2016	1.53	400	73.733216	0	5877.7135	1860.5775					1,195,962	11,288	-	899,834	284,840	0.002261	32,590,320	63%
153	153	2016	1.35	0	3568.36	0	295388.22	496.47	16600	947.38	0	399359.24	0.002618	1996 Hourl	2016	3.05	400	58.66938	0	8850.3922	1045.5225					3,802,362	22,410	-	3,380,593	399,359	0.000791	33,652,538	63%
154	154	2016	7.75	0	4823.89	0	295388.06	993.11	16600	1832.44	0	536015.83	0.000642	1996 Hourl	2016	4.76	400	82.5933	0	5674.9519	344.12216					9,504,155	128,650	-	8,839,489	536,016	0.000231	34,405,644	63%
155	155	2016	0	0	806.54	0	296243.53	50.79	16600	60.39	0	133229.95	0.000642	1997 Hourl	2016	-4.76	400	0	0	31.269862	85.533628					181,937	-	-	48,707	133,230	0.001909	34,493,339	63%
156	156	2016	0	0	1372.49	0	296242.19	89.46	16600	144.46	0	187908.38	0.002618	1997 Hourl	2016	-3.05	400	0	0	519.07061	491.94414					386,178	-	-	198,270	187,908	0.005927	36,412,038	64%
157	157	2016	0.27	0	1908.17	0	296243.31	131.25	16600	173.47	0	252287.25	0.006532	1997 Hourl	2016	-1.53	400	29.276424	0	2162.159	1647.9403					587,779	4,482	-	331,010	252,287	0.009822	36,677,631	65%
158	158	2016	0.09	0	2943.65	0	296245.03	247.97	16600	428.66	0	335740.82	0.008986	1997 Hourl	2016	0	400	13.425084	0	11338.76	3016.967					1,599,060	1,494	-	1,261,825	335,741	0.00763	36,818,664	65%
159	159	2016	1.12	0	3983.57	0	296240.03	411.42	16600	617.68	0	433553.06	0.006532	1997 Hourl	2016	1.53	400	121.442944	0	16072.453	2831.9686					2,912,717	18,592	-	2,460,572	433,553	0.002261	37,461,556	66%
160	160	2016	4.73	0	5729.41	0	296245.62	799.96	16600	1091.52	0	558095.55	0.002618	1997 Hourl	2016	3.05	400	205.560124	0	16372.358	1461.0941					6,890,379	78,518	-	6,253,766	558,096	0.000791	39,568,617	66%
161	161	2016	20.83	0	7923.19	0	296242.72	1652.71	16600	1882.2	0	720552.16	0.000642	1997 Hourl	2016	4.76	400	221.989476	0	9574.1641	462.59449					15,979,358	345,778	-	14,913,028	720,552	0.000231	40,209,750	66%
162	162	2016	0	0	359.86	0	296283.31	28.1	16600	39.31	0	84746.4	0.000642	1998 Hourl	2016	-4.76	400	0	0	9.081794	54.407189					98,892	-	-	14,146	84,746	0.001909	40,332,589	66%
163	163	2016	0.59	0	856.71	0	296279.28	61.34	16600	108.4	0	137242.25	0.002618	1998 Hourl	2016	-3.05	400	25.640692	0	243.12676	359.30021					239,904	9,794	-	92,867	137,242	0.005927	40,705,017	66%
164	164	2016	0	0	1145.07	0	296280.16	87.97	16600	179.44	0	173685.35	0.006532	1998 Hourl	2016	-1.53	400	0	0	1342.1389	1134.5127					379,157	-	-	205,471	173,685	0.009822	41,071,294	67%
165	165	2016	0	0	1781.92	0	296280.56	154.66	16600	303.58	0	249881.65	0.008986	1998 Hourl	2016	0	400	0	0	4861.0241	2245.4365					790,837	-	-	540,955	249,882	0.00763	43,372,819	68%
166	166	2016	1.27	0	2393.95	0	296281.56	247.24	16600	537.46	0	320328.89	0.006532	1998 Hourl	2016	1.53	400	137.707624	0	8404.4133	2092.3883					1,628,063	21,082	-	1,286,652	320,329	0.002261	44,232,870	68%
167	167	2016	1.18	0	3747.79	0	296281.72	511	16600	781.52	0	439240.42	0.002618	1998 Hourl	2016	3.05	400	51.281384	0	7668.0509	1149.9314					3,387,801	19,588	-	2,928,973	439,240	0.000791	44,528,449	69%
168	168	2016	5.63	0	5282.21	0	296281.88	1103.77	16600	1403.56	0	607531.51	0.000642	1998 Hourl	2016	4.76	400	60.000036	0	4759.7229	390.03523					8,114,888	93,458	-	7,413,899	607,532	0.000231	46,582,851	69%
169	169	2016	2.75	0	3514.63	0	295301.84	200.26	16600	108.68	0	221018.36	0.000642	1999 Hourl	2016	-4.76	400	29.3073	0	245.22473	141.89379					648,638	45,650	-	381,970	221,018	0.001909	48,581,465	69%
170	170	2016	4.82	0	5032.88	0	295300.88	309.15	16600	171.66	0	294836.62	0.002618	1999 Hourl	2016	-3.05	400	209.471416	0	2261.8059	771.88227					1,238,793	80,012	-	863,944	294,837	0.005927	51,426,739	69%
171	171	2016	41.52	0	7636.28	0	295300.56	576.42	16600	309.01	0	399917.17	0.006532	1999 Hourl	2016	-1.53	400	4502.063424	0	15413.475	2612.259					3,448,836	689,232	-	2,359,687	399,917	0.009822	52,100,409	70%
172	172	2016	159.95	0	9876.3	0	295301	1149.15	16600	653.61	0	511003.73	0.008986	1999 Hourl	2016	0	400	23859.35762	0	58006.863	4591.8795					9,621,422	2,655,170	-	6,455,248	511,004	0.00763	52,502,618	71%
173	173	2016	508.07	0	12131.36	0	295302.53	2334.93	16600	1053.18	0	638713.57	0.006532	1999 Hourl	2016	1.53	400	55090.63978	0	83456.135	4172.077					21,849,181	8,433,962	-	12,776,506	638,714	0.002261	53,171,077	71%
174	174	2016	1941.23	0	14291.87	0	295301.44	4144.66	16600	1478.72	0	807208.98	0.002618	1999 Hourl	2016	3.05	400	84363.52632	0	55327.959	2113.2731					54,165,301	32,224,418	-	21,133,674	807,209	0.000791	53,356,604	71%
175	175	2016	5205.14	0	15283.73	0	295302.94	6965.89	16600	2082.26	0	1016340.8	0.000642	1999 Hourl	2016	4.76	400	55472.21801	0	20431.457	652.49077					119,246,364	86,405,324	-	31,824,700	1,016,341	0.000231	54,249,263	71%
176	176	2016	0	0	258.94	0	295650.09	17.54	16600	47.41	0	69611.79	0.000642	2000 Hourl	2016	-4.76	400	0	0	7.8814137	44.690769					81,888	-	-	12,276	69,612	0.001909	57,152,308	72%
177	177	2016	0	0	540.19	0	295649.75	37.41	16600	67.66	0	110493.29	0.002618	2000 Hourl	2016	-3.05	400	0	0	95.685951	289.27143					147,043	-	-	36,549	110,493	0.005927	58,924,586	72%
178	178	2016	0.74	0	770.02	0	295652.41	56.55	16600	141.21	0	156268.39	0.006532	2000 Hourl	2016	-1.53	400	80.239088	0	710.25391	1020.7451					277,287	12,284	-	108,735	156,268	0.009822	63,532,658	73%
179	179	2016	0	0	1254.13	0	295648.44	98.6	16600	268.6	0	211264.45	0.008986	2000 Hourl	2016	0	400	0	0	3027.0178	1898.4223					548,124	-	-	336,859	211,264	0.00763	66,106,372	74%
180	180	2016	2.1	0	1762.35	0	295652.44	179.61	16600	677.96	0	277589.39	0.006532	2000 Hourl	2016	1.53	400	227.70552	0	7804.4519	1813.2139					1,507,252	34,860	-	1,194,803	277,589	0.002261	68,333,884	74%
181	181	2016	8.22	0	2445.53	0	295654.41	309.48	16600	807.58	0	368882.69	0.002618	2000 Hourl	2016	3.05	400	357.231336	0	5170.4482	965.73488					2,480,296	136,452	-	1,974,961	368,883	0.000791	68,792,792	74%
182	182	2016	12.6	0	3585.59	0	295655.28	736.64	16600	1253.71	0	496600.52	0.000642	2000 Hourl	2016	4.76	400	134.28072	0	2885.9762	318.81753					5,201,051	209,160	-	4,495,290	496,601	0.000231	69,786,060	74%
183	183	2016	0	0	556.25	0	296597.41	40.27	16600	36.7	0	76480.41	0.000642	2001 Hourl	2016	-4.76	400	0	0	13.106029	49.100423					96,895	-	-	20,414	76,480	0.001909	70,328,618	74%
184	184	2016	0	0	763.53	0	296600.09	58.46	16600	80.69	0	109312.94	0.002618	2001 Hourl	2016	-3.05	400	0	0	161.29298	286.18128					170,922	-	-	61,609	109,313	0.005927	70,406,660	75%
185	185	2016	1	0	1205.93	0	296598.09	92.88	16600	163.4	0	154054.78	0.006532	2001 Hourl	2016	-1.53	400	108.4312	0	1287.1238	1006.2858					367,704	16,600	-	197,049	154,055	0.009822	72,044,117	76%
186	186	2016	0.33	0	1755.39	0	296599.59	143.06	16600	217.78	0	212048.9	0.008986	2001 Hourl	2016	0	400	49.225308	0	3435.2475	1905.4714					599,816	5,478	-	382,289	212,049	0.00763	72,195,618	77%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
187	187	2016	0.85	0	2532.69	0	296598.84	257.44	16600	516.71	0	280331.75	0.006532	2001 Hourl	2016	1.53	400	92.16652	0	8548.2079	1831.127
188	188	2016	0.06	0	3494.17	0	296596.84	458.54	16600	607.3	0	367518.55	0.002618	2001 Hourl	2016	3.05	400	2.607528	0	5555.4207	962.16356
189	189	2016	4.82	0	5128.17	0	296600.44	1069.29	16600	1495.31	0	510397.69	0.000642	2001 Hourl	2016	4.76	400	51.367704	0	4922.9869	327.67532
190	190	2016	0.08	0	1293.95	0	295302.41	85.49	16600	46.62	0	159111.58	0.000642	2002 Hourl	2016	-4.76	400	0.852576	0	38.727975	102.14963
191	191	2016	1.47	0	2170.21	0	295300.69	147.2	16600	91.68	0	237757.63	0.002618	2002 Hourl	2016	-3.05	400	63.884436	0	520.88998	622.44948
192	192	2016	0.37	0	3187.07	0	295303.84	228.85	16600	307.07	0	316185.81	0.006532	2002 Hourl	2016	-1.53	400	40.119544	0	6392.5652	2065.3257
193	193	2016	3.01	0	4680.72	0	295301.41	386.79	16600	327.87	0	437639.74	0.008986	2002 Hourl	2016	0	400	448.994476	0	13790.524	3932.6307
194	194	2016	2.5	0	6807.16	0	295302.59	706.49	16600	742.7	0	562069.47	0.006532	2002 Hourl	2016	1.53	400	271.078	0	33023.687	3671.4378
195	195	2016	19.2	0	9781.25	0	295298.09	1415.45	16600	951.52	0	736867.06	0.002618	2002 Hourl	2016	3.05	400	834.40896	0	24365.87	1929.118
196	196	2016	116.36	0	14212.94	0	295303.22	3231.76	16600	2066.13	0	973305.67	0.000642	2002 Hourl	2016	4.76	400	1240.071792	0	18852.832	624.86224
197	197	2016	0	0	276.2	0	295949.62	21.76	16600	33.17	0	78017.74	0.000642	2003 Hourl	2016	-4.76	400	0	0	5.8817177	50.087389
198	198	2016	0	0	499.02	0	295949.38	39.31	16600	90.96	0	111013.02	0.002618	2003 Hourl	2016	-3.05	400	0	0	118.83327	290.63209
199	199	2016	0	0	967.08	0	295949	69.57	16600	146.51	0	163726.48	0.006532	2003 Hourl	2016	-1.53	400	0	0	925.49877	1069.4614
200	200	2016	1.06	0	1281.76	0	295948.44	114.06	16600	422.89	0	217442.27	0.008986	2003 Hourl	2016	0	400	158.117656	0	4870.8028	1953.9362
201	201	2016	4	0	2017.21	0	295952.03	208.13	16600	520.66	0	295379.08	0.006532	2003 Hourl	2016	1.53	400	433.7248	0	6860.4326	1929.4162
202	202	2016	8.25	0	2944.37	0	295950.41	403.54	16600	726.2	0	391574.1	0.002618	2003 Hourl	2016	3.05	400	358.5351	0	5597.8115	1025.141
203	203	2016	57.76	0	4311.21	0	295951	939.99	16600	1311.45	0	530125.6	0.000642	2003 Hourl	2016	4.76	400	615.559872	0	3629.8271	340.34064
204	204	2016	0	0	100.6	0	295298.84	8.8	16600	45.83	0	42711.94	0.000642	2004 Hourl	2016	-4.76	400	0	0	2.9599397	27.421065
205	205	2016	0	0	249.71	0	295301.16	17.4	16600	93.76	0	60955.46	0.002618	2004 Hourl	2016	-3.05	400	0	0	61.294736	159.58139
206	206	2016	0	0	341.92	0	295301.56	27.11	16600	129.6	0	89945.75	0.006532	2004 Hourl	2016	-1.53	400	0	0	289.45142	587.52564
207	207	2016	0	0	650.41	0	295300.81	48.61	16600	319.01	0	133962.4	0.008986	2004 Hourl	2016	0	400	0	0	1864.4808	1203.7861
208	208	2016	2.14	0	843.54	0	295302.09	80.27	16600	660.68	0	170942.14	0.006532	2004 Hourl	2016	1.53	400	232.042768	0	3640.349	1116.5941
209	209	2016	3.81	0	1048.03	0	295303.09	142.01	16600	615.21	0	224031.3	0.002618	2004 Hourl	2016	3.05	400	165.578028	0	1687.9778	586.51394
210	210	2016	24.59	0	1842.45	0	295298.41	374.54	16600	1246.67	0	328766.27	0.000642	2004 Hourl	2016	4.76	400	262.060548	0	1474.6272	211.06795
211	211	2016	0.16	0	1392.59	0	296224.16	94.27	16600	48.6	0	158519.13	0.000642	2005 Hourl	2016	-4.76	400	1.705152	0	43.450479	101.76928
212	212	2016	1.89	0	2227.76	0	296225.94	148.21	16600	131.16	0	221034.37	0.002618	2005 Hourl	2016	-3.05	400	82.137132	0	764.96128	578.66798
213	213	2016	2.78	0	3618.66	0	296222.81	264.72	16600	316.1	0	299298.84	0.006532	2005 Hourl	2016	-1.53	400	301.438736	0	7471.6832	1955.02
214	214	2016	5.7	0	5157.52	0	296223.88	431.5	16600	424.98	0	398971.92	0.008986	2005 Hourl	2016	0	400	850.25532	0	19695.9	3585.1617
215	215	2016	43.37	0	7037.47	0	296225.97	811.45	16600	786.84	0	523433.16	0.006532	2005 Hourl	2016	1.53	400	4702.661144	0	36170.054	3419.0654
216	216	2016	93.02	0	9271.55	0	296224.62	1471.74	16600	1102.78	0	674596.19	0.002618	2005 Hourl	2016	3.05	400	4042.537576	0	26767.688	1766.0928
217	217	2016	298.31	0	12633.98	0	296229.88	3114.9	16600	1875.91	0	893426.94	0.000642	2005 Hourl	2016	4.76	400	3179.149332	0	15215.534	573.5801
218	218	2016	1.78	0	941.05	0	295578.34	67.58	16600	56.89	0	130530.79	0.000642	2006 Hourl	2016	-4.76	400	18.969816	0	34.370327	83.800767
219	219	2016	0.05	0	1650.38	0	295581.88	110.16	16600	88.5	0	186518.37	0.002618	2006 Hourl	2016	-3.05	400	2.17294	0	382.38149	488.30509
220	220	2016	2.25	0	2974.71	0	295578.91	213.84	16600	215.02	0	266264.56	0.006532	2006 Hourl	2016	-1.53	400	243.9702	0	4178.0118	1739.2401
221	221	2016	2.4	0	3768.64	0	295584.69	305.42	16600	345.32	0	329475.49	0.008986	2006 Hourl	2016	0	400	358.00224	0	11694.261	2960.6668
222	222	2016	5.48	0	5730.88	0	295581.22	595.99	16600	702.46	0	446772.76	0.006532	2006 Hourl	2016	1.53	400	594.202976	0	26295.964	2918.3197
223	223	2016	25.19	0	8512.29	0	295579.44	1254.31	16600	1180.49	0	595197.7	0.002618	2006 Hourl	2016	3.05	400	1094.727172	0	26307.426	1558.2276
224	224	2016	105.11	0	10771.25	0	295582.5	2524.59	16600	1981.84	0	735301.91	0.000642	2006 Hourl	2016	4.76	400	1120.178292	0	13704.706	472.06383
225	225	2016	3.04	0	3579.83	0	296275.09	225.98	16600	84.95	0	282551.32	0.000642	2007 Hourl	2016	-4.76	400	32.397888	0	195.23641	181.39795
226	226	2016	5.68	0	5281.77	0	296277.94	340.84	16600	178.84	0	380644.27	0.002618	2007 Hourl	2016	-3.05	400	246.845984	0	2472.9412	996.5267
227	227	2016	7.14	0	7482.5	0	296272.75	492.16	16600	207.45	0	502126.03	0.006532	2007 Hourl	2016	-1.53	400	774.198768	0	10139.262	3279.8872
228	228	2016	51.49	0	10537.57	0	296274.5	970.4	16600	514.74	0	644616.94	0.008986	2007 Hourl	2016	0	400	7680.639724	0	48741.042	5792.5278
229	229	2016	260.97	0	15406.01	0	296277.06	2159.7	16600	954.1	0	839872.54	0.006532	2007 Hourl	2016	1.53	400	28297.29026	0	96013.046	5486.0474
230	230	2016	631.37	0	18875.32	0	296275.19	4057.51	16600	1217.58	0	1047133	0.002618	2007 Hourl	2016	3.05	400	27438.58256	0	60167.431	2741.3942
231	231	2016	3058.36	0	21606.41	0	296277.22	7785.06	16600	2144.4	0	1307992.8	0.000642	2007 Hourl	2016	4.76	400	32593.55419	0	29745.648	839.73135
232	232	2016	0	0	396.7	0	295693.59	29.86	16600	29.55	0	94433.94	0.000642	2008 Hourl	2016	-4.76	400	0	0	7.5258354	60.626589
233	233	2016	0.02	0	804.55	0	295695.97	56.12	16600	85.55	0	139421.76	0.002618	2008 Hourl	2016	-3.05	400	0.869176	0	180.19498	365.00617
234	234	2016	0	0	1147.74	0	295693.22	83.84	16600	135.63	0	193845.73	0.006532	2008 Hourl	2016	-1.53	400	0	0	1016.8232	1266.2003
235	235	2016	0	0	1870.53	0	295695.03	158.07	16600	309.53	0	274712.33	0.008986	2008 Hourl	2016	0	400	0	0	5202.7606	2468.565
236	236	2016	1.82	0	2574.73	0	295697.31	262.37	16600	492.63	0	364931.29	0.006532	2008 Hourl	2016	1.53	400	197.344784	0	8285.1185	2383.7312
237	237	2016	1.46	0	3688.71	0	295695.03	482.58	16600	774.65	0	478835.3	0.002618	2008 Hourl	2016	3.05	400	63.449848	0	7480.8282	1253.5908
238	238	2016	8.46	0	5550.94	0	295694.94	1136.44	16600	1305.65	0	660499.6	0.000642	2008 Hourl	2016	4.76	400	90.159912	0	4652.9494	424.04074
239	239	2016	0	0	212.71	0	296140.22	16.19	16600	41.39	0	52713.2	0.000642	2009 Hourl	2016	-4.76	400	0	0	5.6522109	33.841874
240	240	2016	0	0	421.64	0	296141.34	30.31	16600	81.12	0	81044.41	0.002618	2009 Hourl	2016	-3.05	400	0	0	89.544598	212.17427
241	241	2016	0	0	537.54	0	296140	40.76	16600	122.66	0	105978.71	0.006532	2009 Hourl	2016	-1.53	400	0	0	430.68518	692.25293
242	242	2016	0.12	0	931.48	0	296141.72	76.5	16600	261.04	0	151128.05	0.008986	2009 Hourl	2016	0	400	17.900112	0	2184.9777	1358.0367
243	243	2016	9.75	0	1374.53	0	296140.97	148.31	16600	441.42	0	209917.49	0.006532	2009 Hourl	2016	1.53	400	1057.2042	0	3963.2586	1371.181
244	244	2016	18.44	0	1952.46	0	296143.66	286.21	16600	642.21	0	279882.47	0.002618	2009 Hourl	2016	3.05	400	801.380272	0	3282.6823	732.73231
245	245	2016	123.36	0	2468.33	0	296142.97	594.28	16600	1265.52	0	373899.89	0.000642	2009 Hourl	2016	4.76	400	1314.672192	0	2005.4289	240.04373

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
187					1,603,108	14,110	-	1,308,666	280,332	0.002261	72,694,374	77%
188					2,490,524	996	-	2,122,009	367,519	0.000791	72,835,776	77%
189					8,258,614	80,012	-	7,668,204	510,398	0.000231	74,649,699	77%
190					220,764	1,328	-	60,324	159,112	0.001909	76,593,401	77%
191					461,124	24,402	-	198,965	237,758	0.005927	79,624,168	78%
192					1,300,981	6,142	-	978,654	316,186	0.009822	82,207,555	79%
193					2,022,273	49,966	-	1,534,668	437,640	0.00763	86,599,260	80%
194					5,659,247	41,500	-	5,055,678	562,069	0.002261	87,964,820	80%
195					10,362,642	318,720	-	9,307,055	736,867	0.000791	88,571,023	80%
196					32,270,663	1,931,576	-	29,365,782	973,306	0.000231	90,309,566	80%
197					87,179	-	-	9,162	78,018	0.001909	94,094,187	80%
198					156,404	-	-	45,391	111,013	0.005927	98,416,062	81%
199					305,413	-	-	141,687	163,726	0.009822	98,995,558	82%
200					777,082	17,596	-	542,043	217,442	0.00763	99,617,665	83%
201					1,412,060	66,400	-	1,050,281	295,379	0.002261	102,624,792	83%
202					2,666,726	136,950	-	2,138,201	391,574	0.000791	103,958,743	83%
203					7,142,878	958,816	-	5,653,936	530,126	0.000231	111,163,903	83%
204					47,322	-	-	4,610	42,712	0.001909	111,220,968	83%
205					84,368	-	-	23,413	60,955	0.005927	113,151,289	84%
206					134,259	-	-	44,313	89,946	0.009822	120,017,937	85%
207					341,450	-	-	207,487	133,962	0.00763	128,116,668	85%
208					763,776	35,524	-	557,310	170,942	0.002261	131,686,654	86%
209					932,036	63,246	-	644,759	224,031	0.000791	134,232,169	86%
210					3,033,887	408,194	-	2,296,927	328,766	0.000231	141,560,469	86%
211					228,855	2,656	-	67,680	158,519	0.001909	152,164,386	86%
212					544,601	31,374	-	292,193	221,034	0.005927	152,791,291	86%
213					1,489,305	46,148	-	1,143,858	299,299	0.009822	154,141,004	87%
214					2,685,435	94,620	-	2,191,843	398,972	0.00763	154,307,650	88%
215					6,780,738	719,942	-	5,537,363	523,433	0.002261	155,440,488	88%
216					12,443,208	1,544,132	-	10,224,480	674,596	0.000791	168,609,612	89%
217					29,545,582	4,951,946	-	23,700,209	893,427	0.000231	173,602,129	89%
218					213,615	29,548	-	53,536	130,531	0.001909	178,393,042	89%
219					333,407	830	-	146,059	186,518	0.005927	194,691,350	89%
220					943,237	37,350	-	639,622	266,265	0.009822	201,121,877	90%
221					1,670,702	39,840	-	1,301,387	329,475	0.00763	218,466,770	91%
222					4,563,455	90,968	-	4,025,714	446,773	0.002261	220,083,156	91%
223					11,062,025	418,154	-	10,048,673	595,198	0.000791	233,436,273	91%
224					23,827,022	1,744,826	-	21,346,894	735,302	0.000231	240,920,423	91%
225					637,122	50,464	-	304,107	282,551	0.001909	247,003,123	92%
226					1,419,524	94,288	-	944,592	380,644	0.005927	255,710,340	92%
227					2,172,895	118,524	-	1,552,245	502,126	0.009822	267,759,921	93%
228					6,923,460	854,734	-	5,424,109	644,617	0.00763	293,640,818	94%
229					19,870,849	4,332,102	-	14,698,874	839,873	0.002261	307,790,568	94%
230					34,510,087	10,480,742	-	22,982,212	1,047,133	0.000791	329,742,447	94%
231					98,409,554	50,768,776	-	46,332,786	1,307,993	0.000231	350,116,554	94%
232					106,156	-	-	11,722	94,434	0.001909	356,130,897	94%
233					208,583	332	-	68,829	139,422	0.005927	380,018,127	95%
234					349,514	-	-	155,668	193,846	0.009822	486,445,455	96%
235					853,697	-	-	578,985	274,712	0.00763	506,106,199	97%
236					1,663,533	30,212	-	1,268,389	364,931	0.002261	525,352,390	97%
237					3,360,531	24,236	-	2,857,459	478,835	0.000791	620,240,191	97%
238					8,048,520	140,436	-	7,247,585	660,500	0.000231	723,919,443	97%
239					61,517	-	-	8,804	52,713	0	723,919,444	97%
240					115,248	-	-	34,203	81,044	0	723,919,445	98%
241					171,913	-	-	65,935	105,979	0	723,919,446	99%
242					396,274	1,992	-	243,154	151,128	0	723,919,447	100%
243					978,513	161,850	-	606,745	209,917	0	723,919,448	100%
244					1,839,876	306,104	-	1,253,889	279,882	0	723,919,449	100%
245					5,545,397	2,047,776	-	3,123,721	373,900	0	723,919,450	100%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs
1	1	2016	0	0	296.93	0	295300.59	23.9	16600	32.61	0	88038.42
2	2	2016	0.29	0	538.88	0	295300.91	42.11	16600	95.82	0	127394.36
3	3	2016	1.11	0	759.19	0	295304.84	60.64	16600	213.73	0	167874.45
4	4	2016	0.57	0	1434.18	0	295302.38	124.06	16600	302.05	0	241606.18
5	5	2016	0.4	0	1758.4	0	295297.47	183.8	16600	492.42	0	315034.35
6	6	2016	0.55	0	2994.91	0	295303.72	396.01	16600	649.86	0	439199.66
7	7	2016	1.91	0	4127.56	0	295299.59	862.05	16600	1227.01	0	568777.89
8	8	2016	0	0	347.98	0	296220.66	22.92	16600	71.07	0	115326.68
9	9	2016	0	0	445.27	0	296217.66	32.92	16600	131.03	0	149684.2
10	10	2016	0.02	0	958.63	0	296223.19	63.76	16600	302.06	0	217789.23
11	11	2016	0	0	1078.44	0	296220.44	82.81	16600	232.44	0	281582.92
12	12	2016	0.21	0	1534.76	0	296215.75	139.84	16600	357.73	0	354987.22
13	13	2016	1.04	0	2336.71	0	296018.47	307.31	16600	794.14	0	464094.36
14	14	2016	2.43	0	2859.56	0	296216.97	569.13	16600	1008.76	0	578641.71
15	15	2016	0	0	655.85	0	295305.47	43.78	16600	47.92	0	194135.26
16	16	2016	0.73	0	1186.23	0	295302.84	85.68	16600	88.98	0	293051.75
17	17	2016	0	0	1796.83	0	295302.88	127.4	16600	142.67	0	391235.1
18	18	2016	4.96	0	2640.25	0	295303.72	225.93	16600	374.91	0	510951.66
19	19	2016	27.53	0	3861.6	0	295301.09	430.3	16600	530.17	0	671899.71
20	20	2016	81.91	0	5487.01	0	295302.03	887.34	16600	866.13	0	853548.77
21	21	2016	526.43	0	7960.51	0	295300.09	2202.02	16600	1462.78	0	1154832.3
22	22	2016	0	0	382.96	0	295303.28	25.94	16600	66.48	0	111370.72
23	23	2016	0.19	0	679.95	0	295304.81	47.02	16600	109.48	0	168676.81
24	24	2016	0.24	0	921.13	0	295297.44	68.71	16600	193.26	0	227504.93
25	25	2016	0.39	0	1464.63	0	295305.03	117.88	16600	295.86	0	304997.06
26	26	2016	11.06	0	2416.92	0	295301.81	272.17	16600	602	0	412073.3
27	27	2016	26.69	0	3099.4	0	295299.69	463.76	16600	904.84	0	536783.39
28	28	2016	139.12	0	4571.22	0	295305.53	1134.07	16600	1810.61	0	724794.51
29	29	2016	0	0	227.14	0	295929.81	16.45	16600	48.12	0	94514.11
30	30	2016	0	0	298	0	295927.66	24.31	16600	60.6	0	130395.97
31	31	2016	0.96	0	656.19	0	295927.38	47.68	16600	209.16	0	186456.5
32	32	2016	0	0	941.49	0	295929.91	78.77	16600	252.54	0	257372.62
33	33	2016	0.15	0	1521.33	0	295932.41	158.68	16600	514.36	0	356156.38
34	34	2016	1.89	0	2253.89	0	295930.09	302.9	16600	785.1	0	464170.97
35	35	2016	7.01	0	3199.39	0	295931.56	642.8	16600	1681.38	0	612772.68
36	36	2016	5.28	0	1100.06	0	295479.31	80.92	16600	411.39	0	189583.26
37	37	2016	1.14	0	1843.19	0	295482.19	124.68	16600	125.9	0	258084.46
38	38	2016	3.67	0	2758.65	0	295480.69	189.96	16600	174.04	0	351063.27
39	39	2016	9.06	0	4174.01	0	295483.25	346.7	16600	442.39	0	455645.94
40	40	2016	17.57	0	6164.35	0	295480.59	670.04	16600	584.97	0	606763.77
41	41	2016	74.03	0	8033.28	0	295482.44	1308.4	16600	1136.93	0	754724.32
42	42	2016	258.85	0	11364.39	0	295482.25	2956.48	16600	2009.56	0	988549.95
43	43	2016	0	0	242.5	0	296013.88	16.36	16600	103.19	0	68773.53
44	44	2016	0	0	386.01	0	296013.03	27.04	16600	70.04	0	107594.16
45	45	2016	0	0	466.33	0	296011.75	38.61	16600	113.88	0	146758.45
46	46	2016	1.22	0	870.88	0	296012.22	72.04	16600	219.52	0	201606.54
47	47	2016	1.31	0	1424.57	0	296013.44	135.04	16600	798.64	0	280033.62
48	48	2016	9.92	0	1738.45	0	296011.53	234.35	16600	689.05	0	364457.72
49	49	2016	25.99	0	2981.01	0	294904.69	661.02	16600	1375.77	0	507552.37
50	50	2016	0	0	218.96	0	296814.22	14.62	16600	40.76	0	92278.57
51	51	2016	0	0	325.34	0	296815.06	24.51	16600	62.9	0	130468.9
52	52	2016	0.44	0	518.1	0	296817.69	42.46	16600	118.07	0	185395.87
53	53	2016	0	0	808.32	0	296814.75	68.31	16600	199.45	0	242668.45
54	54	2016	3.58	0	1212.24	0	296813.97	118.81	16600	324.37	0	329430.17
55	55	2016	17.32	0	1899.09	0	296813.78	271.26	16600	517.48	0	445082.06
56	56	2016	75.89	0	2915.69	0	296814.25	710.79	16600	1080.34	0	597463.05
57	57	2016	2.39	0	3480.95	0	295752.91	205.86	16600	67.05	0	304887.91
58	58	2016	25.86	0	5638.55	0	295759.59	370.48	16600	342.86	0	424545.08
59	59	2016	50.53	0	7674.94	0	295760.69	614.07	16600	365.23	0	544034.59
60	60	2016	257.7	0	11002.8	0	295759.31	1497.34	16600	636.85	0	709567.25
61	61	2016	721.55	0	13448.08	0	295761.44	3253.88	16600	1100.42	0	880630.69
62	62	2016	2988.37	0	14725.78	0	295755.91	5905.48	16600	1563.91	0	1102790.9
63	63	2016	8356.49	0	14736.87	0	295757.06	8674.3	16600	2137.11	0	1385076.7
64	64	2016	0	0	347.79	0	295299.5	23.33	16600	43.47	0	88813.39
65	65	2016	0	0	412.39	0	295300.22	31.01	16600	59.59	0	122861.89
66	66	2016	0.1	0	613.26	0	295300.97	45.87	16600	132.33	0	159609.04
67	67	2016	0	0	1046.82	0	295302.31	85.22	16600	291.47	0	224275.47
68	68	2016	1.5	0	1557.68	0	295302.62	159.48	16600	1357.22	0	292709.43
69	69	2016	13.51	0	2161.27	0	295299.34	281.25	16600	1000.59	0	392758.57
70	70	2016	38.03	0	3025.63	0	295302.25	622.19	16600	1486.63	0	530078.06
71	71	2016	0	0	83.86	0	295932.41	6.75	16600	30.22	0	51019.02
72	72	2016	0	0	241.81	0	295931.59	19.85	16600	192.86	0	81983.7
73	73	2016	0.63	0	336.6	0	295931.62	25.45	16600	141.14	0	115974.19
74	74	2016	0.33	0	560.74	0	295930.34	48.34	16600	267.96	0	159092.98
75	75	2016	0.82	0	851.27	0	295930.56	81.99	16600	486.22	0	225851.7
76	76	2016	2.58	0	1337.24	0	295929.53	180.31	16600	1329.8	0	297429.26
77	77	2016	1.75	0	2114.24	0	295930.25	442.34	16600	1263.57	0	416015.27
78	78	2016	0	0	771.6	0	295849.72	50.72	16600	42.15	0	149333.91
79	79	2016	0	0	1336.52	0	295845.41	88.23	16600	155.2	0	211418.43
80	80	2016	0	0	2166.46	0	295845.97	143.53	16600	396.37	0	277611.95
81	81	2016	0.59	0	2934.8	0	295850.59	250.1	16600	408.33	0	363107.33
82	82	2016	2.39	0	3819.82	0	295843.47	403.48	16600	994.46	0	466664.13
83	83	2016	0.28	0	5316.26	0	295843	714.21	16600	1364.47	0	580753.33
84	84	2016	1.6	0	7406.2	0	295846.31	1462.75	16600	2357.21	0	779278.65
85	85	2016	0.01	0	580.97	0	296563	39.87	16600	49	0	120753.65
86	86	2016	0	0	891.56	0	296560.25	60.94	16600	83	0	178586.29
87	87	2016	0.46	0	1253.69	0	296563.81	94.23	16600	164.18	0	234965.73
88	88	2016	0.04	0	2152.27	0	296563.81	176.67	16600	422.64	0	324552.25
89	89	2016	0.93	0	2776.85	0	296562.59	278.94	16600	500.17	0	422166.01
90	90	2016	3.8	0	4149.65	0	296561.34	572.99	16600	884.13	0	541051.41
91	91	2016	11.94	0	5520.35	0	296562.34	1154.5	16600	1272.33	0	709078.91
92	92	2016	1.26	0	1907.26	0	296984.41	125.75	16600	84.93	0	221817.56

No	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
1	0.000642	1975 Hourl	2016	-4.76	400	0	0	6.2164136	56.520666
2	0.002618	1975 Hourl	2016	-3.05	400	12.603052	0	135.18169	333.51843
3	0.006532	1975 Hourl	2016	-1.53	400	120.358632	0	1059.8933	1096.5559
4	0.008986	1975 Hourl	2016	0	400	85.025532	0	3892.6819	2171.0731
5	0.006532	1975 Hourl	2016	1.53	400	43.37248	0	5655.8715	2057.8044
6	0.002618	1975 Hourl	2016	3.05	400	23.90234	0	5095.3407	1149.8247
7	0.000642	1975 Hourl	2016	4.76	400	20.355252	0	3251.4458	365.15541
8	0.000642	1976 Hourl	2016	-4.76	400	0	0	15.877263	74.039729
9	0.002618	1976 Hourl	2016	-3.05	400	0	0	152.74388	391.87324
10	0.006532	1976 Hourl	2016	-1.53	400	2.168624	0	1891.4306	1422.5993
11	0.008986	1976 Hourl	2016	0	400	0	0	2252.5439	2530.3041
12	0.006532	1976 Hourl	2016	1.53	400	22.770552	0	3586.262	2318.7765
13	0.002618	1976 Hourl	2016	3.05	400	45.197152	0	4858.1568	1214.999
14	0.000642	1976 Hourl	2016	4.76	400	25.896996	0	1851.9195	371.48798
15	0.000642	1977 Hourl	2016	-4.76	400	0	0	20.176989	124.63484
16	0.002618	1977 Hourl	2016	-3.05	400	31.724924	0	276.33185	767.20948
17	0.006532	1977 Hourl	2016	-1.53	400	0	0	1674.5026	2555.5477
18	0.008986	1977 Hourl	2016	0	400	739.871296	0	8894.8472	4591.4116
19	0.006532	1977 Hourl	2016	1.53	400	2985.110936	0	13372.993	4388.8489
20	0.002618	1977 Hourl	2016	3.05	400	3559.710308	0	12441.951	2234.5907
21	0.000642	1977 Hourl	2016	4.76	400	5610.269796	0	7475.7528	741.40231
22	0.000642	1978 Hourl	2016	-4.76	400	0	0	16.344794	71.500002
23	0.002618	1978 Hourl	2016	-3.05	400	8.257172	0	194.88634	441.59589
24	0.006532	1978 Hourl	2016	-1.53	400	26.023488	0	1162.8109	1486.0622
25	0.008986	1978 Hourl	2016	0	400	58.175364	0	3893.8623	2740.7036
26	0.006532	1978 Hourl	2016	1.53	400	1199.249072	0	9503.9675	2691.6628
27	0.002618	1978 Hourl	2016	3.05	400	1159.915372	0	7342.0791	1405.2989
28	0.000642	1978 Hourl	2016	4.76	400	1482.629664	0	5313.6392	465.31808
29	0.000642	1979 Hourl	2016	-4.76	400	0	0	7.0170451	60.678059
30	0.002618	1979 Hourl	2016	-3.05	400	0	0	47.277938	341.37665
31	0.006532	1979 Hourl	2016	-1.53	400	104.093952	0	896.50851	1217.9339
32	0.008986	1979 Hourl	2016	0	400	0	0	2136.5463	2312.7504
33	0.006532	1979 Hourl	2016	1.53	400	16.26468	0	5111.3638	2326.4135
34	0.002618	1979 Hourl	2016	3.05	400	82.137132	0	4632.627	1215.1996
35	0.000642	1979 Hourl	2016	4.76	400	74.706972	0	3453.5686	393.40006
36	0.000642	1980 Hourl	2016	-4.76	400	56.270016	0	290.53946	121.71245
37	0.002618	1980 Hourl	2016	-3.05	400	49.543032	0	607.52685	675.66512
38	0.006532	1980 Hourl	2016	-1.53	400	397.942504	0	3136.1141	2293.1453
39	0.008986	1980 Hourl	2016	0	400	1351.458456	0	16593.011	4094.4344
40	0.006532	1980 Hourl	2016	1.53	400	1905.136184	0	23554.13	3963.3809
41	0.002618	1980 Hourl	2016	3.05	400	3217.254964	0	23910.919	1975.8683
42	0.000642	1980 Hourl	2016	4.76	400	2758.61622	0	14661.626	634.64907
43	0.000642	1981 Hourl	2016	-4.76	400	0	0	16.065135	44.152606
44	0.002618	1981 Hourl	2016	-3.05	400	0	0	70.780616	281.68151
45	0.006532	1981 Hourl	2016	-1.53	400	0	0	346.88617	958.6262
46	0.008986	1981 Hourl	2016	0	400	181.984472	0	1717.9037	1811.6364
47	0.006532	1981 Hourl	2016	1.53	400	142.044872	0	7431.5778	1829.1796
48	0.002618	1981 Hourl	2016	3.05	400	431.111296	0	3136.0472	954.15031
49	0.000642	1981 Hourl	2016	4.76	400	276.980628	0	2632.9602	325.84862
50	0.000642	1982 Hourl	2016	-4.76	400	0	0	5.7297278	59.242842
51	0.002618	1982 Hourl	2016	-3.05	400	0	0	53.574454	341.56758
52	0.006532	1982 Hourl	2016	-1.53	400	47.709728	0	399.57594	1211.0058
53	0.008986	1982 Hourl	2016	0	400	0	0	1448.7177	2180.6187
54	0.006532	1982 Hourl	2016	1.53	400	388.183696	0	2568.4757	2151.8379
55	0.002618	1982 Hourl	2016	3.05	400	752.706416	0	2572.8162	1165.2248
56	0.000642	1982 Hourl	2016	4.76	400	808.774908	0	2022.2593	383.57128
57	0.000642	1983 Hourl	2016	-4.76	400	25.470708	0	149.84132	195.73804
58	0.002618	1983 Hourl	2016	-3.05	400	1123.844568	0	5061.2047	1111.459
59	0.006532	1983 Hourl	2016	-1.53	400	5479.028536	0	18309.969	3553.6339
60	0.008986	1983 Hourl	2016	0	400	38440.49052	0	62966.099	6376.1713
61	0.006532	1983 Hourl	2016	1.53	400	78238.53236	0	96664.038	5752.2797
62	0.002618	1983 Hourl	2016	3.05	400	129870.9742	0	60292.002	2887.1065
63	0.000642	1983 Hourl	2016	4.76	400	89056.78523	0	20219.348	889.21923
64	0.000642	1984 Hourl	2016	-4.76	400	0	0	9.7060329	57.018196
65	0.002618	1984 Hourl	2016	-3.05	400	0	0	64.33557	321.65243
66	0.006532	1984 Hourl	2016	-1.53	400	10.84312	0	530.08941	1042.5662
67	0.008986	1984 Hourl	2016	0	400	0	0	2741.778	2015.3394
68	0.006532	1984 Hourl	2016	1.53	400	162.6468	0	13809.396	1911.978
69	0.002618	1984 Hourl	2016	3.05	400	587.128388	0	5661.5432	1028.2419
70	0.000642	1984 Hourl	2016	4.76	400	405.293316	0	2887.7111	340.31011
71	0.000642	1985 Hourl	2016	-4.76	400	0	0	1.626988	32.754211
72	0.002618	1985 Hourl	2016	-3.05	400	0	0	122.09168	214.63333
73	0.006532	1985 Hourl	2016	-1.53	400	68.311656	0	310.32045	757.54341
74	0.008986	1985 Hourl	2016	0	400	49.225308	0	1350.1994	1429.6095
75	0.006532	1985 Hourl	2016	1.53	400	88.913584	0	2703.6242	1475.2633
76	0.002618	1985 Hourl	2016	3.05	400	112.123704	0	4655.4893	778.6698
77	0.000642	1985 Hourl	2016	4.76	400	18.6501	0	1715.0967	267.0818
78	0.000642	1986 Hourl	2016	-4.76	400	0	0	20.879727	95.87237
79	0.002618	1986 Hourl	2016	-3.05	400	0	0	543.04625	553.49345
80	0.006532	1986 Hourl	2016	-1.53	400	0	0	5609.1574	1813.3613
81	0.008986	1986 Hourl	2016	0	400	88.008884	0	10768.525	3262.8825
82	0.006532	1986 Hourl	2016	1.53	400	259.150568	0	24812.835	3048.2501
83	0.002618	1986 Hourl	2016	3.05	400	12.168464	0	18990.651	1520.4122
84	0.000642	1986 Hourl	2016	4.76	400	17.05152	0	11208.016	500.29689
85	0.000642	1987 Hourl	2016	-4.76	400	0.106572	0	18.276154	77.523843
86	0.002618	1987 Hourl	2016	-3.05	400	0	0	193.73064	467.53891
87	0.006532	1987 Hourl	2016	-1.53	400	49.878352	0	1344.4869	1534.7961
88	0.008986	1987 Hourl	2016	0	400	5.966704	0	8173.9836	2916.4265
89	0.006532	1987 Hourl	2016	1.53	400	100.841016	0	9072.2756	2757.5884
90	0.002618	1987 Hourl	2016	3.05	400	165.14344	0	9604.9971	1416.4726
91	0.000642	1987 Hourl	2016	4.76	400	127.246968	0	4509.2198	455.22866
92	0.000642	1988 Hourl	2016	-4.76	400	13.428072	0	103.99347	142.40687

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
1	**344**	**1,836**	**-**	**705**	97,721	-	-	9,683	88,038	0.001909	109,022	0
2					183,844	4,814	-	51,635	127,394	0.005927	120,218	1%
3					348,562	18,426	-	162,262	167,874	0.009822	143,365	2%
4					684,262	9,462	-	433,194	241,606	0.00763	143,920	3%
5					1,187,546	6,640	-	865,871	315,034	0.002261	188,646	3%
6					2,394,602	9,130	-	1,946,272	439,200	0.000791	197,708	3%
7					5,665,041	31,706	-	5,064,557	568,778	0.000231	203,528	3%
8					140,058	-	-	24,731	115,327	0.001909	209,426	3%
9					208,028	-	-	58,344	149,684	0.005927	214,991	4%
10					507,685	332	-	289,564	217,789	0.009822	224,473	5%
11					532,256	-	-	250,673	281,583	0.00763	228,248	5%
12					907,503	3,486	-	549,030	354,987	0.002261	229,283	6%
13					2,337,033	17,264	-	1,855,675	464,094	0.000791	242,500	6%
14					3,503,589	40,338	-	2,884,610	578,642	0.000231	250,277	6%
15					225,564	-	-	31,428	194,135	0.001909	277,692	6%
16					410,720	12,118	-	105,551	293,052	0.005927	291,005	6%
17					647,589	-	-	256,354	391,235	0.009822	353,134	7%
18					1,583,144	82,336	-	989,856	510,952	0.00763	355,667	8%
19					3,176,202	456,998	-	2,047,304	671,900	0.002261	380,649	8%
20					6,965,719	1,359,706	-	4,752,464	853,549	0.000791	425,126	9%
21					21,538,045	8,738,738	-	11,644,475	1,154,832	0.000231	443,005	9%
22					136,830	-	-	25,459	111,371	0.001909	459,794	9%
23					246,272	3,154	-	74,441	168,677	0.005927	464,875	9%
24					409,507	3,984	-	178,018	227,505	0.009822	478,024	10%
25					744,796	6,474	-	433,325	304,997	0.00763	527,816	11%
26					2,050,655	183,596	-	1,454,986	412,073	0.002261	528,488	11%
27					3,784,298	443,054	-	2,804,461	536,783	0.000791	657,945	11%
28					11,310,883	2,309,392	-	8,276,697	724,795	0.000231	686,032	11%
29					105,444	-	-	10,930	94,514	0.001909	704,430	12%
30					148,455	-	-	18,059	130,396	0.005927	722,238	12%
31					339,641	15,936	-	137,249	186,457	0.009822	733,829	13%
32					495,137	-	-	237,764	257,373	0.00763	741,486	14%
33					1,141,158	2,490	-	782,511	356,156	0.002261	747,370	14%
34					2,265,074	31,374	-	1,769,529	464,171	0.000791	771,253	14%
35					6,108,529	116,366	-	5,379,390	612,773	0.000231	773,594	14%
36					729,785	87,648	-	452,554	189,583	0.001909	779,958	14%
37					509,066	18,924	-	232,058	258,084	0.005927	828,854	15%
38					892,101	60,922	-	480,115	351,063	0.009822	872,140	16%
39					2,452,582	150,396	-	1,846,540	455,646	0.00763	902,862	17%
40					4,504,386	291,662	-	3,605,960	606,764	0.002261	943,531	17%
41					11,116,899	1,228,898	-	9,133,277	754,724	0.000791	999,497	17%
42					28,122,884	4,296,910	-	22,837,424	988,550	0.000231	1,109,237	17%
43					93,797	-	-	25,024	68,774	0.001909	1,132,014	17%
44					134,630	-	-	27,036	107,594	0.005927	1,192,000	18%
45					199,864	-	-	53,106	146,758	0.009822	1,193,734	19%
46					413,034	20,252	-	191,176	201,607	0.00763	1,245,870	20%
47					1,439,498	21,746	-	1,137,719	280,034	0.002261	1,320,162	20%
48					1,727,009	164,672	-	1,197,879	364,458	0.000791	1,350,031	20%
49					5,040,170	431,434	-	4,101,184	507,552	0.000231	1,354,764	20%
50					101,203	-	-	8,925	92,279	0.001909	1,356,709	20%
51					150,933	-	-	20,464	130,469	0.005927	1,378,640	21%
52					253,872	7,304	-	61,172	185,396	0.009822	1,421,904	22%
53					403,888	-	-	161,219	242,668	0.00763	1,676,255	23%
54					782,072	59,428	-	393,214	329,430	0.002261	1,729,401	23%
55					1,715,335	287,512	-	982,741	445,082	0.000791	1,742,479	23%
56					5,007,174	1,259,774	-	3,149,937	597,463	0.000231	1,850,406	23%
57					577,960	39,674	-	233,398	304,888	0.001909	1,941,428	23%
58					2,787,054	429,276	-	1,933,233	424,545	0.005927	2,036,736	24%
59					4,185,951	838,798	-	2,803,118	544,035	0.009822	2,041,425	25%
60					11,994,520	4,277,820	-	7,007,133	709,567	0.00763	2,092,130	25%
61					27,656,897	11,977,730	-	14,798,536	880,631	0.002261	2,188,714	26%
62					73,739,527	49,606,942	-	23,029,795	1,102,791	0.000791	2,195,207	26%
63					171,597,123	138,717,734	-	31,494,312	1,385,077	0.000231	2,227,632	26%
64					103,932	-	-	15,118	88,813	0.001909	2,411,082	26%
65					147,436	-	-	24,574	122,862	0.005927	2,444,724	26%
66					242,422	1,660	-	81,153	159,609	0.009822	2,503,670	27%
67					529,392	-	-	305,117	224,275	0.00763	2,535,728	28%
68					2,431,724	24,900	-	2,114,114	292,709	0.002261	2,548,812	28%
69					2,779,570	224,266	-	2,162,545	392,759	0.000791	2,617,251	29%
70					5,659,368	631,298	-	4,497,992	530,078	0.000231	2,627,493	29%
71					53,553	-	-	2,534	51,019	0.001909	2,661,838	29%
72					128,619	-	-	46,635	81,984	0.005927	2,891,157	29%
73					173,940	10,458	-	47,508	115,974	0.009822	2,938,201	30%
74					314,827	5,478	-	150,256	159,093	0.00763	3,219,947	31%
75					653,368	13,612	-	413,904	225,852	0.002261	3,538,075	31%
76					2,118,519	42,828	-	1,778,262	297,429	0.000791	3,677,336	31%
77					3,116,556	29,050	-	2,671,490	416,015	0.000231	3,686,640	31%
78					181,857	-	-	32,523	149,334	0.001909	3,780,047	32%
79					418,846	-	-	207,428	211,418	0.005927	3,845,735	32%
80					1,136,332	-	-	858,720	277,612	0.009822	4,130,755	33%
81					1,571,268	9,794	-	1,198,367	363,107	0.00763	4,130,838	34%
82					4,304,996	39,674	-	3,798,658	466,664	0.002261	4,350,615	34%
83					7,839,279	4,648	-	7,253,877	580,753	0.000791	4,391,543	34%
84					18,263,807	26,560	-	17,457,969	779,279	0.000231	4,466,305	34%
85					149,387	166	-	28,468	120,754	0.001909	4,718,059	34%
86					252,586	-	-	73,999	178,586	0.005927	5,237,078	35%
87					448,433	7,636	-	205,831	234,966	0.009822	5,490,119	36%
88					1,234,852	664	-	909,635	324,552	0.00763	5,797,910	37%
89					1,826,501	15,438	-	1,388,897	422,166	0.002261	5,842,819	37%
90					4,272,961	63,080	-	3,668,830	541,051	0.000791	5,875,578	37%
91					7,930,990	198,204	-	7,023,707	709,079	0.000231	6,082,609	37%
92					404,717	20,916	-	161,984	221,818	0.001909	6,195,418	37%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**		Case Probability		
93	93	2016	3.07	0	3200.76	0	296981.81	208.81	16600	157.07	0	315211.51	0.002618	1988 Hourl	2016	-3.05	400	133.418516	0	1316.1822	825.22373	868,917	50,962	-	502,743	315,212	0.005927	6,483,090	38%
94	94	2016	0.58	0	4968.2	0	296980.72	331.79	16600	191.98	0	434171.58	0.006532	1988 Hourl	2016	-1.53	400	62.890096	0	6230.1892	2836.0088	1,397,595	9,628	-	953,795	434,172	0.009822	6,508,522	39%
95	95	2016	6.34	0	7110.34	0	296983.78	584.91	16600	395.79	0	551920.94	0.008986	1988 Hourl	2016	0	400	945.722584	0	25288.414	4959.5616	3,471,366	105,244	-	2,814,201	551,921	0.00763	6,863,782	40%
96	96	2016	37.55	0	9636.92	0	296983.59	1048.25	16600	796.8	0	707656.43	0.006532	1988 Hourl	2016	1.53	400	4071.59156	0	50157.254	4622.4118	9,009,684	623,330	-	7,678,698	707,656	0.002261	6,910,469	40%
97	97	2016	131.26	0	13564.86	0	296982.91	2232.18	16600	1259.08	0	892363.74	0.002618	1988 Hourl	2016	3.05	400	5704.402088	0	44713.461	2336.2083	20,150,524	2,178,916	-	17,079,244	892,364	0.000791	7,038,401	40%
98	98	2016	459.04	0	17808.34	0	296984.59	4713.31	16600	1900.14	0	1160814.6	0.000642	1988 Hourl	2016	4.76	400	4892.081088	0	21724.214	745.24295	42,619,218	7,620,064	-	33,838,339	1,160,815	0.000231	7,272,700	40%
99	99	2016	0	0	181.13	0	295300.84	13.63	16600	23.99	0	74673.74	0.000642	1989 Hourl	2016	-4.76	400	0	0	2.7896882	47.940541	79,019	-	-	4,345	74,674	0.001909	7,775,271	40%
100	100	2016	0	0	383.75	0	295304.16	28.03	16600	59.32	0	114251.6	0.002618	1989 Hourl	2016	-3.05	400	0	0	59.596283	299.11069	137,016	-	-	22,764	114,252	0.005927	7,833,435	41%
101	101	2016	0	0	620.99	0	295302.44	48.06	16600	162.29	0	164731.16	0.006532	1989 Hourl	2016	-1.53	400	0	0	658.29801	1076.0239	265,512	-	-	100,780	164,731	0.009822	7,999,972	42%
102	102	2016	0.66	0	1278.77	0	295303.84	105.32	16600	386.43	0	231014.29	0.008986	1989 Hourl	2016	0	400	98.450616	0	4440.4776	2075.8944	736,125	10,956	-	494,155	231,014	0.00763	8,045,866	43%
103	103	2016	0	0	1659.06	0	295302.22	168.06	16600	419.44	0	306238.61	0.006532	1989 Hourl	2016	1.53	400	0	0	4545.4629	2000.3506	1,002,115	-	-	695,876	306,239	0.002261	8,163,169	43%
104	104	2016	5.53	0	2547.39	0	295303.94	334.93	16600	849.97	0	412704.79	0.002618	1989 Hourl	2016	3.05	400	240.327164	0	5668.5069	1080.4611	2,669,708	91,798	-	2,165,205	412,705	0.000791	8,231,151	43%
105	105	2016	4.96	0	3497.15	0	295301.22	708.29	16600	1407.18	0	543213.85	0.000642	1989 Hourl	2016	4.76	400	52.859712	0	3159.3587	348.74329	5,546,669	82,336	-	4,921,120	543,214	0.000231	9,369,223	43%
106	106	2016	0	0	675.09	0	295302.88	44.83	16600	39.12	0	90744.9	0.000642	1990 Hourl	2016	-4.76	400	0	0	16.954912	58.258226	117,154	-	-	26,410	90,745	0.001909	9,397,053	43%
107	107	2016	0	0	926.41	0	295301.53	61.56	16600	78.31	0	122610.06	0.002618	1990 Hourl	2016	-3.05	400	0	0	189.92848	320.99314	195,157	-	-	72,547	122,610	0.005927	9,547,561	44%
108	108	2016	0.78	0	1692.8	0	295307.09	120.3	16600	224.33	0	166062.01	0.006532	1990 Hourl	2016	-1.53	400	84.576336	0	2480.4997	1084.717	558,756	12,948	-	379,746	166,062	0.009822	9,655,956	45%
109	109	2016	1.01	0	2543	0	295304.62	215.45	16600	369.17	0	224833.78	0.008986	1990 Hourl	2016	0	400	150.659276	0	8436.0506	2020.3563	1,180,399	16,766	-	938,799	224,834	0.00763	9,754,034	45%
110	110	2016	12.79	0	3553.35	0	295300.5	418.87	16600	639.16	0	290123.98	0.006532	1990 Hourl	2016	1.53	400	1386.835048	0	14835.212	1895.0898	2,773,597	212,314	-	2,271,159	290,124	0.002261	10,384,152	46%
111	111	2016	76.1	0	4742.62	0	295300.84	881.65	16600	1092.39	0	370963.31	0.002618	1990 Hourl	2016	3.05	400	3307.21468	0	13563.31	971.18195	6,815,014	1,263,260	-	5,180,791	370,963	0.000791	10,576,179	46%
112	112	2016	275.52	0	6071.78	0	295302.69	1856.11	16600	2121.51	0	474024.31	0.000642	1990 Hourl	2016	4.76	400	2936.271744	0	8269.8216	304.32361	17,928,998	4,573,632	-	12,881,342	474,024	0.000231	10,594,032	46%
113	113	2016	0.41	0	978.43	0	296218.81	59.73	16600	81.62	0	179152.42	0.000642	1991 Hourl	2016	-4.76	400	4.369452	0	51.269771	115.01585	265,818	6,806	-	79,859	179,152	0.001909	11,306,273	46%
114	114	2016	0	0	1553.15	0	296216.56	99.18	16600	193.21	0	238699.42	0.002618	1991 Hourl	2016	-3.05	400	0	0	785.6202	624.91508	538,784	-	-	300,084	238,699	0.005927	11,548,795	46%
115	115	2016	0.06	0	2393.06	0	296215.94	162.15	16600	232.65	0	333261.83	0.006532	1991 Hourl	2016	-1.53	400	6.505872	0	3636.661	2176.8663	891,003	996	-	556,745	333,262	0.009822	11,908,476	47%
116	116	2016	0.54	0	3355.69	0	296215.34	269.67	16600	522.02	0	412901.99	0.008986	1991 Hourl	2016	0	400	80.550504	0	15741.111	3710.3373	2,173,603	8,964	-	1,751,737	412,902	0.00763	11,989,541	48%
117	117	2016	7.01	0	4706.1	0	296217.28	506.18	16600	845.34	0	538147	0.006532	1991 Hourl	2016	1.53	400	760.102712	0	25985.959	3515.1762	4,632,768	116,366	-	3,978,255	538,147	0.002261	12,247,502	48%
118	118	2016	11.83	0	6458.76	0	296218.19	896.5	16600	1274.78	0	679760.79	0.002618	1991 Hourl	2016	3.05	400	514.117604	0	21555.298	1779.6137	9,109,637	196,378	-	8,233,498	679,761	0.000791	12,524,581	49%
119	119	2016	47.83	0	8382.77	0	296214.59	1795.92	16600	1901.49	0	861820.33	0.000642	1991 Hourl	2016	4.76	400	509.733876	0	10233.322	553.28865	17,595,552	793,978	-	15,939,753	861,820	0.000231	13,887,491	49%
120	120	2016	0	0	121.41	0	295303.09	10.08	16600	29.87	0	52418.17	0.000642	1992 Hourl	2016	-4.76	400	0	0	2.3282237	33.652465	56,045	-	-	3,627	52,418	0.001909	15,002,594	49%
121	121	2016	0	0	191.92	0	295306.19	16.51	16600	50.98	0	71530.47	0.002618	1992 Hourl	2016	-3.05	400	0	0	25.614726	187.26677	81,315	-	-	9,784	71,530	0.005927	15,279,847	49%
122	122	2016	0	0	370.08	0	295304.56	29.23	16600	111.98	0	101381.42	0.006532	1992 Hourl	2016	-1.53	400	0	0	270.69626	662.22344	142,823	-	-	41,442	101,381	0.009822	15,736,127	50%
123	123	2016	0.76	0	535.31	0	295303.47	46.01	16600	209.92	0	139390.13	0.008986	1992 Hourl	2016	0	400	113.367376	0	1009.7773	1252.5597	264,378	12,616	-	112,372	139,390	0.00763	16,020,383	51%
124	124	2016	1.19	0	849.25	0	295302.41	84.75	16600	341.53	0	184540.01	0.006532	1992 Hourl	2016	1.53	400	129.033128	0	1894.5697	1205.4153	494,338	19,754	-	290,044	184,540	0.002261	16,118,748	51%
125	125	2016	9.58	0	1168.58	0	295305	155.2	16600	690.98	0	244883.95	0.002618	1992 Hourl	2016	3.05	400	416.335304	0	2113.9444	641.10618	1,211,377	159,028	-	807,465	244,884	0.000791	16,326,879	51%
126	126	2016	28.83	0	1712.19	0	295302.5	374.16	16600	939.89	0	347938.75	0.000642	1992 Hourl	2016	4.76	400	307.247076	0	1033.1515	223.37668	2,435,787	478,578	-	1,609,270	347,939	0.000231	16,426,661	51%
127	127	2016	0.07	0	718.78	0	296391.94	50.91	16600	42.65	0	134635.11	0.000642	1993 Hourl	2016	-4.76	400	0.746004	0	19.681131	86.435741	166,453	1,162	-	30,656	134,635	0.001909	16,459,700	52%
128	128	2016	0	0	1185.02	0	296389.09	83.79	16600	73.87	0	201608.14	0.002618	1993 Hourl	2016	-3.05	400	0	0	229.17298	527.81011	289,146	-	-	87,537	201,608	0.005927	17,515,262	52%
129	129	2016	0.78	0	2074.63	0	296391.62	145.99	16600	246.63	0	274429.23	0.006532	1993 Hourl	2016	-1.53	400	84.576336	0	3342.2023	1792.5717	799,043	12,948	-	511,666	274,429	0.009822	18,203,651	53%
130	130	2016	0.75	0	2665.12	0	296389.81	220.33	16600	308.43	0	352382.56	0.008986	1993 Hourl	2016	0	400	111.8757	0	7386.5186	3166.5097	1,186,836	12,450	-	822,003	352,383	0.00763	18,469,509	54%
131	131	2016	1.16	0	3928.74	0	296387.91	400.35	16600	510.26	0	463034.71	0.006532	1993 Hourl	2016	1.53	400	125.780192	0	13094.562	3024.5427	2,486,970	19,256	-	2,004,679	463,035	0.002261	18,546,480	54%
132	132	2016	18.73	0	5568.98	0	296390.62	801.43	16600	900.22	0	596811.93	0.002618	1993 Hourl	2016	3.05	400	813.983324	0	13124.838	1562.4536	5,921,037	310,918	-	5,013,307	596,812	0.000791	18,628,799	54%
133	133	2016	51.03	0	7030.76	0	296389.25	1618.61	16600	1410.21	0	760896.22	0.000642	1993 Hourl	2016	4.76	400	543.836916	0	6365.3325	488.49537	11,522,842	847,098	-	9,914,848	760,896	0.000231	19,954,558	54%
134	134	2016	0.51	0	378.77	0	295753.44	28.5	16600	43.84	0	103200.16	0.000642	1994 Hourl	2016	-4.76	400	5.435172	0	10.660588	66.254503	128,271	8,466	-	16,605	103,200	0.001909	20,370,709	54%
135	135	2016	0	0	589.28	0	295759.53	46.22	16600	84.78	0	151522.13	0.002618	1994 Hourl	2016	-3.05	400	0	0	130.79308	396.68494	201,481	-	-	49,959	151,522	0.005927	20,655,614	55%
136	136	2016	0	0	1049.66	0	295750.97	74.97	16600	122.36	0	213120.07	0.006532	1994 Hourl	2016	-1.53	400	0	0	838.94655	1392.1003	341,556	-	-	128,436	213,120	0.009822	20,799,395	56%
137	137	2016	0.53	0	1617.57	0	295755	141.5	16600	323.67	0	288894.17	0.008986	1994 Hourl	2016	0	400	79.058828	0	4704.7001	2596.003	821,251	8,798	-	523,559	288,894	0.00763	21,647,400	57%
138	138	2016	5.49	0	2341.64	0	295756.94	234.72	16600	545.27	0	381874.94	0.006532	1994 Hourl	2016	1.53	400	595.287288	0	8340.2277	2494.4071	1,749,835	91,134	-	1,276,826	381,875	0.002261	22,378,108	57%
139	139	2016	18.27	0	3432.95	0	295756.06	477.22	16600	1246.79	0	503268.4	0.002618	1994 Hourl	2016	3.05	400	793.992276	0	11205.479	1317.5567	5,086,718	303,282	-	4,280,168	503,268	0.000791	22,403,865	57%
140	140	2016	53.93	0	4985.96	0	295755.47	1110.2	16600	1516.89	0	660850.98	0.000642	1994 Hourl	2016	4.76	400	574.742796	0	4855.5441	424.26633	9,119,242	895,238	-	7,563,153	660,851	0.000231	22,468,085	57%
141	141	2016	2.73	0	1271.09	0	295485.34	84.07	16600	80.01	0	220363.48	0.000642	1995 Hourl	2016	-4.76	400	29.094156	0	65.291343	141.47335	367,381	45,318	-	101,700	220,363	0.001909	22,712,944	57%
142	142	2016	1.59	0	1972.13	0	295483.91	136.13	16600	138.77	0	307834.19	0.002618	1995 Hourl	2016	-3.05	400	69.099492	0	716.47455	805.90991	607,901	26,394	-	273,672	307,834	0.005927	23,215,464	58%
143	143	2016	5.5	0	2891.52	0	295481.44	204.7	16600	257.42	0	405255.45	0.006532	1995 Hourl	2016	-1.53	400	596.3716	0	4861.9967	2647.1286	1,240,891	91,300	-	744,335	405,255	0.009822	24,989,141	59%
144	144	2016	20.11	0	4474.5	0	295482.75	394.43	16600	734.3	0	529255.78	0.008986	1995 Hourl	2016	0	400	2999.760436	0	29524.629	4755.8924	4,148,707	333,826	-	3,285,625	529,256	0.00763	26,409,021	60%
145	145	2016	25.1	0	6259.33	0	295482.44	725.05	16600	663.61	0	690083.04	0.006532	1995 Hourl	2016	1.53	400	2721.62312	0	27132.321	4507.6224	5,260,497	416,660	-	4,153,754	690,083	0.002261	27,007,798	60%
146	146	2016	87.54	0	8292.88	0	295484.03	1386.86	16600	1063.69	0	864738.48	0.002618	1995 Hourl	2016	3.05	400	3804.383352	0	23093.518	2263.8853	11,138,956	1,453,164	-	8,821,054	864,738	0.000791	27,051,835	60%
147	147	2016	514.03	0	11723.5	0	295481.59	3201.7	16600	2082.2	0	1136510.8	0.000642	1995 Hourl	2016	4.76	400	5478.120516	0	15671.651	729.63991	34,080,080	8,532,898	-	24,410,672	1,136,511	0.000231	27,877,290	60%
148	148	2016	0	0	261.32	0	295393.72	20.54	16600	31.49	0	85126.63	0.000642	1996 Hourl	2016	-4.76	400	0	0	5.2829967	54.651296	93,356	-	-	8,229	85,127	0.001909	28,433,145	60%
149	149	2016	0	0	542.13	0	295391.88	36.76	16600	85.92	0	126975.64	0.002618	1996 Hourl	2016	-3.05	400	0	0	121.94594	332.42223	173,555	-	-	46,580	126,976	0.005927	29,053,865	61%
150	150	2016	0	0	556.33	0	295390.94	48.43	16600	147.22	0	167639.36	0.006532	1996 Hourl	2016	-1.53	400	0	0	534.98976	1095.0203	249,542	-	-	81,903	167,639	0.009822	32,023,523	62%
151	151	2016	0	0	1141.13	0	295389.16	91.54	16600	246.75	0	231945.67	0.008986	1996 Hourl	2016	0	400	0	0	2530.2224	2084.2638	513,519	-	-	281,574	231,946	0.00763	32,060,835	63%
152	152	2016	0	0	1679.68	0	295389.97	176.74	16600	499.91	0	317815.39	0.006532	1996 Hourl	2016	1.53	400	0	0	5484.8474	2075.9701	1,157,504	-	-	839,689	317,815	0.002261	32,590,320	63%
153	153	2016	2.59	0	2765.1	0	295388.22	382.53	16600	920.8	0	428093.8	0.002618	1996 Hourl	2016	3.05	400	112.558292	0	6665.7005	1120.7496	3,017,192	42,994	-	2,546,104	428,094	0.000791	33,652,538	63%
154	154	2016	0.81	0	3777.09	0	295388.06	776.44	16600	1225.67	0	562707.6	0.000642	1996 Hourl	2016	4.76	400	8.632332	0	2972.1171	361.25828	5,205,620	13,446	-	4,629,466	562,708	0.000231	34,405,644	63%
155	155	2016	0	0	747.02	0	296243.53	48.27	16600	179.75	0	146573.54	0.000642	1997 Hourl	2016	-4.76	400	0	0	86.205734	94.100213	280,850	-	-	134,277	146,574	0.001909	34,493,339	63%
156	156	2016	0	0	850.93	0	296242.19	59.31	16600	76.88	0	195235.01	0.002618	1997 Hourl	2016	-3.05	400	0	0	171.26825	511.12526	260,655	-	-	65,419	195,235	0.005927	36,412,038	64%
157	157	2016	0	0	1397.82	0	296243.31	100.36	16600	365.84	0	259593.15	0.006532	1997 Hourl	2016	-1.53	400	0	0	3340.3242	1695.6625	770,972	-	-	511,378	259,593	0.009822	36,677,631	65%
158	158	2016	0.19	0	1970.12	0	296245.03	157.17	16600	426.56	0	334423.31	0.008986	1997 Hourl	2016	0	400	28.341844	0	7551.6042	3005.1279	1,177,952	3,154	-	840,374	334,423	0.00763	36,818,664	65%
159	159	2016	0.72	0	3184.45	0	296240.03	326.97	16600	766.94	0	448924.58	0.006532	1997 Hourl	2016	1.53	400	78.070464	0	15952.987	2932.3754	2,903,159	11,952	-	2,442,282	448,925	0.002261	37,461,556	66%
160	160	2016	5.88	0	4310.64	0	296245.62	593.37	16600	1158.92	0	572885.92	0.002618	1997 Hourl	2016	3.05	400	255.537744	0	13078.708	1499.8153	5,666,181	97,608	-	4,995,687	572,886	0.000791	39,568,617	66%
161	161	2016	19.17	0	6136.42	0	296242.72	1265.49	16600	1809.95	0	752079.04	0.000642	1997 Hourl	2016	4.76	400	204.298524	0	7130.4458	482.83474	12,176,914	318,222	-	11,106,613	752,079	0.000231	40,209,750	66%
162	162	2016	0	0	320.02	0	296283.31	24.4	16600	59.27	0	93828.61	0.000642	1998 Hourl	2016	-4.76	400	0	0	12.17719	60.237968	112,796	-	-	18,968	93,829	0.001909	40,332,589	66%
163	163	2016	0	0	468	0	296279.28	36.43	16600	75.12	0	134922.68	0.002618	1998 Hourl	2016	-3.05	400	0	0	92.038827	353.22758	170,079	-	-	35,156	134,923	0.005927	40,705,017	66%
164	164	2016	0	0	682.23	0	296280.16	52.71	16600	118.26	0	183593.24	0.006532	1998 Hourl	2016	-1.53	400	0	0	527.00516	1199.231	264,274	-	-	80,681	183,593	0.009822	41,071,294	67%
165	165	2016	0	0	1185.25	0	296280.56	97.88	16600	350.64	0	244129.17	0.008986	1998 Hourl	2016	0	400	0	0	3734.5462	2193.7447	659,725	-	-	415,596	244,129	0.00763	43,372,819	68%
166	166	2016	0	0	2080.55	0	296281.56	211.06	16600	668.88	0	349130.35	0.006532	1998 Hourl	2016	1.53	400	0	0	9090.1813	2280.5194	1,740,769	-	-	1,391,638	349,130	0.002261	44,232,870	68%
167	167	2016	0.18	0	2767.18	0	296281.72	370.61	16600	626.42	0	453490.38	0.002618	1998 Hourl	2016	3.05	400	7.822584	0	4538.0854	1187.2378	2,189,895	2,988	-	1,733,417	453,490	0.000791	44,528,449	69%
168	168	2016	1.94	0	4020.89	0	296281.88	824.95	16600	1171.68	0	608110.81	0.000642	1998 Hourl	2016	4.76	400	20.674968	0	3024.5881	390.40714	5,351,511	32,204	-	4,711,196	608,111	0.000231	46,582,851	69%
169	169	2016	4.98	0	2590.79	0	295301.84	161.16	16600	95.85	0	219484.04	0.000642	1999 Hourl	2016	-4.76	400	53.072856	0	159.42608	140.90875	550,479	82,668	-	248,327	219,484	0.001909	48,581,465	69%
170	170	2016	1.19	0	3569.7	0	295300.88	216.8	16600	117.35	0	299553.19	0.002618	1999 Hourl	2016	-3.05	400	51.715972	0	1096.6914	784.23025	738,211	19,754	-	418,904	299,553	0.005927	51,426,739	69%
171	171	2016	18.85	0	5120.02	0	295300.56	387.92	16600	216.85	0	385580.28	0.006532	1999 Hourl	2016	-1.53	400	2043.92812	0	7252.325	2518.6104	1,808,767	312,910	-	1,110,276	385,580	0.009822	52,100,409	70%
172	172	2016	96.51	0	7098.72	0	295301	854.23	16600	448.48	0	500731.21	0.008986	1999 Hourl	2016	0	400	14396.16508	0	28608.135	4499.5707	5,286,431	1,602,066	-	3,183,634	500,731	0.00763	52,502,618	71%
173	173	2016	459.59	0	10080.45	0	295302.53	2028.59	16600	1022.59	0	655612.53	0.006532	1999 Hourl	2016	1.53	400	49833.89521	0	67332.949	4282.461	18,592,974	7,629,194	-	10,308,167	655,613	0.002261	53,171,077	71%
174	174	2016	1690.92	0	11535.8	0	295301.44	3579.67	16600	1531.87	0	811975.99	0.002618	1999 Hourl	2016	3.05	400	73485.3541	0	46263.584	2125.7531	46,552,594	28,069,272	-	17,671,346	811,976	0.000791	53,356,604	71%
175	175	2016	4516.57	0	12219.12	0	295302.94	6020.41	16600	1946.3	0	1046628.3	0.000642	1999 Hourl	2016	4.76	400	48133.9898	0	15268.091	671.93538	99,803,764	74,975,062	-	23,782,073	1,046,628	0.000231	54,249,263	71%
176	176	2016	0	0	125.75	0	295650.09	11.97	16600	23.32	0	74866.7	0.000642	2000 Hourl	2016	-4.76	400	0	0	1.8826586	48.064421	77,799	-	-	2,932	74,867	0.001909	57,152,308	72%
177	177	2016	0	0	404.18	0	295649.75	28.6	16600	78.83	0	120266.72	0.002618	2000 Hourl	2016	-3.05	400	0	0	83.413432	314.85827	152,128	-	-	31,862	120,267	0.005927	58,924,586	72%
178	178	2016	0	0	562.04	0	295652.41	42.27	16600	127.95	0	154289.98	0.006532	2000 Hourl	2016	-1.53	400	0	0	469.73583	1007.8221	226,203	-	-	71,913	154,290	0.009822	63,532,658	73%
179	179	2016	0	0	926.64	0	295648.44	75.82	16600	1013.64	0	216972.91	0.008986	2000 Hourl	2016	0	400	0	0	8440.3644	1949.7186	1,156,252	-	-	939,279	216,973	0.00763	66,106,372	74%
180	180	2016	0.89	0	1225.85	0	295652.44	119.06	16600	340.72	0	294730.96	0.006532	2000 Hourl	2016	1.53	400	96.503768	0	2728.231	1925.1826	727,177	14,774	-	417,672	294,731	0.002261	68,333,884	74%
181	181	2016	2.25	0	1825.18	0	295654.41	231.78	16600	794.43	0	385813.47	0.002618	2000 Hourl	2016	3.05	400	97.7823	0	3796.0417	1010.0597	1,873,141	37,350	-	1,449,978	385,813	0.000791	68,792,792	74%
182	182	2016	17.47	0	2632.13	0	295655.28	543	16600	1086.32	0	533135.46	0.000642	2000 Hourl	2016	4.76	400	186.181284	0	1835.6934	342.27297	3,682,473	290,002	-	2,859,335	533,135	0.000231	69,786,060	74%
183	183	2016	0	0	392.24	0	296597.41	31.85	16600	50.69	0	83075.87	0.000642	2001 Hourl	2016	-4.76	400	0	0	12.764658	53.334709	102,959	-	-	19,883	83,076	0.001909	70,328,618	74%
184	184	2016	0	0	482.15	0	296600.09	38.85	16600	56.71	0	115448.44	0.002618	2001 Hourl	2016	-3.05	400	0	0	71.583258	302.24402	142,791	-	-	27,343	115,448	0.005927	70,406,660	75%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations
185	185	2016	0.21	0	790.07	0	296598.09	63.17	16600	87.76	0	161214.17	0.006532	2001 Hourl	2016	-1.53	400
186	186	2016	0.08	0	1290.87	0	296599.59	106.5	16600	278.84	0	226015.22	0.008986	2001 Hourl	2016	0	400
187	187	2016	4.56	0	1845.84	0	296598.84	196.14	16600	650.66	0	297672.85	0.006532	2001 Hourl	2016	1.53	400
188	188	2016	6.58	0	2886.11	0	296596.84	384.73	16600	1088.5	0	399484.62	0.002618	2001 Hourl	2016	3.05	400
189	189	2016	0.23	0	3645.25	0	296600.44	716.64	16600	848.85	0	531564.78	0.000642	2001 Hourl	2016	4.76	400
190	190	2016	0.01	0	918.99	0	295302.41	65.3	16600	53.1	0	164243.46	0.000642	2002 Hourl	2016	-4.76	400
191	191	2016	0	0	1585.9	0	295300.69	108.34	16600	98.65	0	241108.93	0.002618	2002 Hourl	2016	-3.05	400
192	192	2016	0.79	0	2279.22	0	295303.84	165.22	16600	185.12	0	318595.95	0.006532	2002 Hourl	2016	-1.53	400
193	193	2016	1.64	0	3045.78	0	295301.41	249.48	16600	268.98	0	410047.52	0.008986	2002 Hourl	2016	0	400
194	194	2016	2.68	0	5174.11	0	295302.59	526.7	16600	522.95	0	565006.6	0.006532	2002 Hourl	2016	1.53	400
195	195	2016	14.92	0	7474.36	0	295298.09	1087.4	16600	1073.32	0	733991.01	0.002618	2002 Hourl	2016	3.05	400
196	196	2016	52.45	0	9880.66	0	295303.22	2213.45	16600	1635.5	0	953745.79	0.000642	2002 Hourl	2016	4.76	400
197	197	2016	0	0	243.19	0	295949.62	19.17	16600	34.59	0	93194.31	0.000642	2003 Hourl	2016	-4.76	400
198	198	2016	0.05	0	407.21	0	295949.38	32.75	16600	81.43	0	130308.18	0.002618	2003 Hourl	2016	-3.05	400
199	199	2016	0	0	709.69	0	295949	51.85	16600	229.37	0	170658.91	0.006532	2003 Hourl	2016	-1.53	400
200	200	2016	1.39	0	1111.26	0	295948.44	92.22	16600	395.04	0	232722.72	0.008986	2003 Hourl	2016	0	400
201	201	2016	1.07	0	1550.41	0	295952.03	154.07	16600	428.78	0	312105.21	0.006532	2003 Hourl	2016	1.53	400
202	202	2016	7.8	0	2106.58	0	295950.41	282.97	16600	720.81	0	407311.45	0.002618	2003 Hourl	2016	3.05	400
203	203	2016	39.74	0	3246.16	0	295951	696.27	16600	1130.89	0	557372.46	0.000642	2003 Hourl	2016	4.76	400
204	204	2016	0	0	80.6	0	295298.84	7.55	16600	22.92	0	47804.32	0.000642	2004 Hourl	2016	-4.76	400
205	205	2016	0	0	142.75	0	295301.16	12.16	16600	52.88	0	68494.83	0.002618	2004 Hourl	2016	-3.05	400
206	206	2016	0	0	204.49	0	295301.56	18.16	16600	128.26	0	92604.55	0.006532	2004 Hourl	2016	-1.53	400
207	207	2016	0.95	0	443.72	0	295300.81	32.71	16600	214.97	0	134660.16	0.008986	2004 Hourl	2016	0	400
208	208	2016	1.36	0	701.93	0	295302.09	71.08	16600	602.2	0	185914.17	0.006532	2004 Hourl	2016	1.53	400
209	209	2016	4.82	0	759	0	295303.09	103.23	16600	466.73	0	242375.47	0.002618	2004 Hourl	2016	3.05	400
210	210	2016	16.45	0	1276.12	0	295298.41	269.4	16600	1033.68	0	335528.83	0.000642	2004 Hourl	2016	4.76	400
211	211	2016	0.38	0	1104.9	0	296224.16	75.2	16600	58.67	0	165637.34	0.000642	2005 Hourl	2016	-4.76	400
212	212	2016	0	0	1619.31	0	296225.94	111.99	16600	109.05	0	227726.77	0.002618	2005 Hourl	2016	-3.05	400
213	213	2016	2.51	0	2448.43	0	296222.81	174.39	16600	184.97	0	306046.14	0.006532	2005 Hourl	2016	-1.53	400
214	214	2016	6.64	0	3868.54	0	296223.88	325.83	16600	425.02	0	415279.3	0.008986	2005 Hourl	2016	0	400
215	215	2016	23.66	0	5233.44	0	296225.97	586.27	16600	740.78	0	536174.05	0.006532	2005 Hourl	2016	1.53	400
216	216	2016	57.58	0	6698.03	0	296224.62	1037.24	16600	846.71	0	670394.94	0.002618	2005 Hourl	2016	3.05	400
217	217	2016	223.98	0	9386.59	0	296229.88	2369.92	16600	1848.81	0	882002.24	0.000642	2005 Hourl	2016	4.76	400
218	218	2016	1.08	0	840.93	0	295578.34	60.84	16600	69.54	0	143524.25	0.000642	2006 Hourl	2016	-4.76	400
219	219	2016	0	0	1383.49	0	295581.88	94.4	16600	108.84	0	200574.66	0.002618	2006 Hourl	2016	-3.05	400
220	220	2016	2.62	0	1822.48	0	295578.91	130.36	16600	228.14	0	256608.21	0.006532	2006 Hourl	2016	-1.53	400
221	221	2016	1.02	0	3293.1	0	295584.69	265.59	16600	284.6	0	375432.94	0.008986	2006 Hourl	2016	0	400
222	222	2016	4.99	0	4608.34	0	295581.22	480.15	16600	683.88	0	469166.65	0.006532	2006 Hourl	2016	1.53	400
223	223	2016	21.9	0	6209.24	0	295579.44	902.79	16600	923.13	0	588919.25	0.002618	2006 Hourl	2016	3.05	400
224	224	2016	68.58	0	8673.38	0	295582.5	2005.2	16600	1809.5	0	760478.15	0.000642	2006 Hourl	2016	4.76	400
225	225	2016	0.48	0	2708.3	0	296275.09	172.39	16600	104.27	0	293258.86	0.000642	2007 Hourl	2016	-4.76	400
226	226	2016	2.51	0	4022.73	0	296277.94	256.8	16600	98.33	0	398184.56	0.002618	2007 Hourl	2016	-3.05	400
227	227	2016	2.42	0	6170.46	0	296272.75	427.72	16600	231.23	0	511294.26	0.006532	2007 Hourl	2016	-1.53	400
228	228	2016	53.11	0	8717.62	0	296274.5	806.41	16600	558.44	0	661236.26	0.008986	2007 Hourl	2016	0	400
229	229	2016	157.29	0	11572.37	0	296277.06	1660.49	16600	850.26	0	824034.4	0.006532	2007 Hourl	2016	1.53	400
230	230	2016	530.34	0	15100.66	0	296275.19	3361.35	16600	1272.64	0	1045212.4	0.002618	2007 Hourl	2016	3.05	400
231	231	2016	2616.7	0	18153.35	0	296277.22	6748.49	16600	2185.12	0	1336381.2	0.000642	2007 Hourl	2016	4.76	400
232	232	2016	0	0	462.67	0	295693.59	32.05	16600	89.76	0	110018.89	0.000642	2008 Hourl	2016	-4.76	400
233	233	2016	0	0	466.05	0	295695.97	37.75	16600	58.57	0	148941.69	0.002618	2008 Hourl	2016	-3.05	400
234	234	2016	0.3	0	844.73	0	295693.22	65.63	16600	126.77	0	212819.29	0.006532	2008 Hourl	2016	-1.53	400
235	235	2016	0	0	1322.66	0	295695.03	113.31	16600	365.78	0	282592.06	0.008986	2008 Hourl	2016	0	400
236	236	2016	0	0	1975.69	0	295697.31	197.55	16600	525.03	0	378823.42	0.006532	2008 Hourl	2016	1.53	400
237	237	2016	0	0	2942.55	0	295695.03	400.56	16600	1111.98	0	498847.81	0.002618	2008 Hourl	2016	3.05	400
238	238	2016	2.35	0	4142.26	0	295694.94	824.36	16600	1327.08	0	683453.65	0.000642	2008 Hourl	2016	4.76	400
239	239	2016	0	0	112.34	0	296140.22	9.6	16600	28.25	0	55216.2	0.000642	2009 Hourl	2016	-4.76	400
240	240	2016	0	0	299.99	0	296141.34	22.55	16600	71.21	0	87208.71	0.002618	2009 Hourl	2016	-3.05	400
241	241	2016	0	0	405.88	0	296140	32.51	16600	93.17	0	121013.09	0.006532	2009 Hourl	2016	-1.53	400
242	242	2016	0.29	0	549.49	0	296141.72	49.81	16600	172.84	0	164338.74	0.008986	2009 Hourl	2016	0	400
243	243	2016	4.76	0	1128.63	0	296140.97	109.54	16600	351.65	0	239012.28	0.006532	2009 Hourl	2016	1.53	400
244	244	2016	15.58	0	1579.91	0	296143.66	233.85	16600	838.88	0	311233.76	0.002618	2009 Hourl	2016	3.05	400
245	245	2016	88.24	0	2251.83	0	296142.97	510.54	16600	1126.27	0	424334.35	0.000642	2009 Hourl	2016	4.76	400

No	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
185	22.770552	0	452.9063	1053.051					234,037	3,486	-	69,337	161,214	0.009822	72,044,117	76%
186	11.933408	0	3234.4765	2030.9728					587,289	1,328	-	359,946	226,015	0.00763	72,195,618	77%
187	494.446272	0	7845.0251	1944.3991					1,574,383	75,696	-	1,201,014	297,673	0.002261	72,694,374	77%
188	285.958904	0	8224.5275	1045.8507					3,650,243	109,228	-	3,141,531	399,485	0.000791	72,835,776	77%
189	2.451156	0	1986.5216	341.26459					3,629,653	3,818	-	3,094,270	531,565	0.000231	74,649,699	77%
190	0.106572	0	31.328553	105.4443					213,208	166	-	48,798	164,243	0.001909	76,593,401	77%
191	0	0	409.58357	631.22318					397,558	-	-	156,449	241,109	0.005927	79,624,168	78%
192	85.660648	0	2756.0416	2081.0687					753,639	13,114	-	421,929	318,596	0.009822	82,207,555	79%
193	244.634864	0	7361.8156	3684.687					1,256,525	27,224	-	819,254	410,048	0.00763	86,599,260	80%
194	290.595616	0	17674.291	3690.6231					3,315,295	44,488	-	2,705,801	565,007	0.002261	87,964,820	80%
195	648.405296	0	21002.591	1921.5885					9,004,043	247,672	-	8,022,380	733,991	0.000791	88,571,023	80%
196	558.97014	0	10374.604	612.3048					17,984,235	870,670	-	16,159,819	953,746	0.000231	90,309,566	80%
197	0	0	5.4004668	59.830747					101,606	-	-	8,412	93,194	0.001909	94,094,187	80%
198	2.17294	0	86.810551	341.14682					164,297	830	-	33,159	130,308	0.005927	98,416,062	81%
199	0	0	1063.2894	1114.744					333,441	-	-	162,782	170,659	0.009822	98,995,558	82%
200	207.342964	0	3944.7835	2091.2464					694,789	23,074	-	438,992	232,723	0.00763	99,617,665	83%
201	116.021384	0	4342.3743	2038.6712					994,652	17,762	-	664,785	312,105	0.002261	102,624,792	83%
202	338.97864	0	3975.2862	1066.3414					2,055,235	129,480	-	1,518,444	407,311	0.000791	103,958,743	83%
203	423.517128	0	2356.814	357.83312					4,888,106	659,684	-	3,671,050	557,372	0.000231	111,163,903	83%
204	0	0	1.186	30.690373					49,652	-	-	1,847	47,804	0.001909	111,220,968	83%
205	0	0	19.762287	179.31946					76,043	-	-	7,549	68,495	0.005927	113,151,289	84%
206	0	0	171.32056	604.89292					118,832	-	-	26,228	92,605	0.009822	120,017,937	85%
207	141.70922	0	857.14298	1210.0562					245,817	15,770	-	95,386	134,660	0.00763	128,116,668	85%
208	147.466432	0	2761.0911	1214.3914					631,192	22,576	-	422,702	185,914	0.002261	131,686,654	86%
209	209.471416	0	927.42145	634.53898					676,636	80,012	-	354,248	242,375	0.000791	134,232,169	86%
210	175.31094	0	846.86202	215.40951					1,927,699	273,070	-	1,319,100	335,529	0.000231	141,560,469	86%
211	4.049736	0	41.617318	106.33917					236,770	6,308	-	64,824	165,637	0.001909	152,164,386	86%
212	0	0	462.30151	596.18868					404,313	-	-	176,586	227,727	0.005927	152,791,291	86%
213	272.162312	0	2958.252	1999.0934					800,598	41,666	-	452,886	306,046	0.009822	154,141,004	87%
214	990.472864	0	14774.843	3731.6998					2,169,710	110,224	-	1,644,207	415,279	0.00763	154,307,650	88%
215	2565.482192	0	25323.438	3502.2889					4,805,758	392,756	-	3,876,828	536,174	0.002261	155,440,488	88%
216	2502.357704	0	14847.435	1755.094					7,297,512	955,828	-	5,671,289	670,395	0.000791	168,609,612	89%
217	2386.999656	0	11141.282	566.24544					21,954,092	3,718,068	-	17,354,021	882,002	0.000231	173,602,129	89%
218	11.509776	0	37.543051	92.142569					219,931	17,928	-	58,478	143,524	0.001909	178,393,042	89%
219	0	0	394.21596	525.10446					351,154	-	-	150,579	200,575	0.005927	194,691,350	89%
220	284.089744	0	2715.8788	1676.1648					715,881	43,492	-	415,781	256,608	0.009822	201,121,877	90%
221	152.150952	0	8421.8253	3373.6404					1,329,581	16,932	-	937,216	375,433	0.00763	218,466,770	91%
222	541.071688	0	20585.935	3064.5966					3,703,552	82,834	-	3,151,552	469,167	0.002261	220,083,156	91%
223	951.74772	0	15006.208	1541.7906					6,684,395	363,540	-	5,731,936	588,919	0.000791	233,436,273	91%
224	730.870776	0	10075.857	488.22697					17,593,387	1,138,428	-	15,694,481	760,478	0.000231	240,920,423	91%
225	5.115456	0	181.29723	188.27219					583,621	7,968	-	282,394	293,259	0.001909	247,003,123	92%
226	109.081588	0	1035.5631	1042.4472					835,406	41,666	-	395,555	398,185	0.005927	255,710,340	92%
227	262.403504	0	9319.828	3339.7741					1,978,262	40,172	-	1,426,795	511,294	0.009822	267,759,921	93%
228	7922.291236	0	43746.254	5941.869					6,411,130	881,626	-	4,868,268	661,236	0.00763	293,640,818	94%
229	17055.14345	0	64271.766	5382.5927					13,274,572	2,611,014	-	9,839,523	824,034	0.002261	307,790,568	94%
230	23047.93999	0	50311.949	2736.366					29,066,560	8,803,644	-	19,217,704	1,045,212	0.000791	329,742,447	94%
231	27886.69524	0	25466.373	857.9567					84,440,849	43,437,220	-	39,667,248	1,336,381	0.000231	350,116,554	94%
232	0	0	26.661784	70.632127					151,548	-	-	41,529	110,019	0.001909	356,130,897	94%
233	0	0	71.462364	389.92934					176,238	-	-	27,297	148,942	0.005927	380,018,127	95%
234	32.52936	0	699.48851	1390.1356					324,886	4,980	-	107,086	212,819	0.009822	486,445,455	96%
235	0	0	4347.4499	2539.3723					766,395	-	-	483,803	282,592	0.00763	506,106,199	97%
236	0	0	6775.6209	2474.4746					1,416,120	-	-	1,037,297	378,823	0.002261	525,352,390	97%
237	0	0	8566.2446	1305.9836					3,770,905	-	-	3,272,057	498,848	0.000791	620,240,191	97%
238	25.04442	0	3529.1449	438.77724					6,219,574	39,010	-	5,497,110	683,454	0.000231	723,919,443	97%
239	0	0	2.0374544	35.4488					58,390	-	-	3,174	55,216	0	723,919,444	97%
240	0	0	55.92647	228.3124					108,571	-	-	21,362	87,209	0	723,919,445	98%
241	0	0	247.01306	790.4575					158,829	-	-	37,816	121,013	0	723,919,446	99%
242	43.258604	0	853.43503	1476.7479					264,127	4,814	-	94,974	164,339	0	723,919,447	100%
243	516.132512	0	2592.4381	1561.2282					714,911	79,016	-	396,883	239,012	0	723,919,448	100%
244	677.088104	0	3469.7791	814.80998					1,895,217	258,628	-	1,325,355	311,234	0	723,919,449	100%
245	940.391328	0	1628.2202	272.42265					4,425,287	1,464,784	-	2,536,169	424,334	0	723,919,450	100%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
									16600	0								0	0	0	0	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	109,022	0
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	120,218	1%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	143,365	2%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	143,920	3%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	188,646	3%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	197,708	3%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	203,528	3%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	209,426	3%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	214,991	4%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	224,473	5%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	228,248	5%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	229,283	6%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	242,500	6%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	250,277	6%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	277,692	6%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	291,005	6%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	353,134	7%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	355,667	8%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	380,649	8%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	425,126	9%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	443,005	9%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	459,794	9%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	464,875	9%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	478,024	10%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	527,816	11%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	528,488	11%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	657,945	11%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	686,032	11%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	704,430	12%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	722,238	12%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	733,829	13%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	741,486	14%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	747,370	14%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	771,253	14%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	773,594	14%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	779,958	14%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	828,854	15%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	872,140	16%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	902,862	17%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	943,531	17%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	999,497	17%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	1,109,237	17%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	1,132,014	17%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	1,192,000	18%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	1,193,734	19%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	1,245,870	20%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	1,320,162	20%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	1,350,031	20%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	1,354,764	20%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	1,356,709	20%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	1,378,640	21%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	1,421,904	22%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	1,676,255	23%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	1,729,401	23%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	1,742,479	23%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	1,850,406	23%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	1,941,428	23%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	2,036,736	24%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	2,041,425	25%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	2,092,130	25%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	2,188,714	26%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	2,195,207	26%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	2,227,632	26%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	2,411,082	26%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	2,444,724	26%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	2,503,670	27%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	2,535,728	28%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	2,548,812	28%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	2,617,251	29%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	2,627,493	29%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	2,661,838	29%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	2,891,157	29%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	2,938,201	30%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	3,219,947	31%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	3,538,075	31%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	3,677,336	31%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	3,686,640	31%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	3,780,047	32%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	3,845,735	32%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	4,130,755	33%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	4,130,838	34%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	4,350,615	34%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	4,391,543	34%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	4,466,305	34%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	4,718,059	34%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	5,237,078	35%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	5,490,119	36%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	5,797,910	37%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	5,842,819	37%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	5,875,578	37%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	6,082,609	37%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	6,195,418	37%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	6,483,090	38%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	6,508,522	39%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	6,863,782	40%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	6,910,469	40%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	7,038,401	40%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	7,272,700	40%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	7,775,271	40%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	7,833,435	41%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	7,999,972	42%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	8,045,866	43%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	8,163,169	43%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	8,231,151	43%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	9,369,223	43%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	9,397,053	43%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	9,547,561	44%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	9,655,956	45%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	9,754,034	45%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	10,384,152	46%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	10,576,179	46%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	10,594,032	46%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	11,306,273	46%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	11,548,795	46%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	11,908,476	47%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	11,989,541	48%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	12,247,502	48%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	12,524,581	49%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	13,887,491	49%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	15,002,594	49%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	15,279,847	49%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	15,736,127	50%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	16,020,383	51%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	16,118,748	51%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	16,326,879	51%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	16,426,661	51%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	16,459,700	52%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	17,515,262	52%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	18,203,651	53%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	18,469,509	54%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	18,546,480	54%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	18,628,799	54%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	19,954,558	54%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	20,370,709	54%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	20,655,614	55%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	20,799,395	56%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	21,647,400	57%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	22,378,108	57%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	22,403,865	57%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	22,468,085	57%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	22,712,944	57%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	23,215,464	58%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	24,989,141	59%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	26,409,021	60%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	27,007,798	60%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	27,051,835	60%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	27,877,290	60%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	28,433,145	60%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	29,053,865	61%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	32,023,523	62%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	32,060,835	63%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	32,590,320	63%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	33,652,538	63%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	34,405,644	63%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	34,493,339	63%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	36,412,038	64%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	36,677,631	65%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	36,818,664	65%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	37,461,556	66%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	39,568,617	66%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	40,209,750	66%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	40,332,589	66%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	40,705,017	66%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	41,071,294	67%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	43,372,819	68%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	44,232,870	68%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	44,528,449	69%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	46,582,851	69%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	48,581,465	69%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	51,426,739	69%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	52,100,409	70%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	52,502,618	71%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	53,171,077	71%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	53,356,604	71%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	54,249,263	71%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	57,152,308	72%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	58,924,586	72%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	63,532,658	73%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	66,106,372	74%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	68,333,884	74%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	68,792,792	74%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	69,786,060	74%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	70,328,618	74%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	70,406,660	75%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	72,044,117	76%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	72,195,618	77%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	72,694,374	77%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	72,835,776	77%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	74,649,699	77%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	76,593,401	77%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	79,624,168	78%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	82,207,555	79%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	86,599,260	80%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	87,964,820	80%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	88,571,023	80%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	90,309,566	80%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	94,094,187	80%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	98,416,062	81%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	98,995,558	82%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	99,617,665	83%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	102,624,792	83%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	103,958,743	83%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	111,163,903	83%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	111,220,968	83%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	113,151,289	84%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	120,017,937	85%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	128,116,668	85%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	131,686,654	86%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	134,232,169	86%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	141,560,469	86%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	152,164,386	86%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	152,791,291	86%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	154,141,004	87%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	154,307,650	88%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	155,440,488	88%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	168,609,612	89%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	173,602,129	89%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	178,393,042	89%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	194,691,350	89%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	201,121,877	90%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	218,466,770	91%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	220,083,156	91%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	233,436,273	91%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	240,920,423	91%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	247,003,123	92%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	255,710,340	92%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	267,759,921	93%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	293,640,818	94%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	307,790,568	94%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	329,742,447	94%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	350,116,554	94%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.001909	356,130,897	94%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.005927	380,018,127	95%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.009822	486,445,455	96%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00763	506,106,199	97%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.002261	525,352,390	97%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000791	620,240,191	97%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.000231	723,919,443	97%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	723,919,444	97%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	723,919,445	98%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	723,919,446	99%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	723,919,447	100%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	723,919,448	100%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	723,919,449	100%
									16600	0								0	0	0	0					#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	723,919,450	100%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
1	1	2016	0	0	147.71	0	295300.59	11.38	16600	47.32	0	87837.07	0.000642	1975 Hourl	2016	-4.76	400	0	0	4.4873471	56.391399
2	2	2016	0	0	283.04	0	295300.91	22.08	16600	62.32	0	123015.02	0.002618	1975 Hourl	2016	-3.05	400	0	0	46.17904	322.05332
3	3	2016	0	0	341.99	0	295304.84	28.8	16600	133.14	0	175620.18	0.006532	1975 Hourl	2016	-1.53	400	0	0	297.41861	1147.151
4	4	2016	0	0	551.59	0	295302.38	44.39	16600	163.97	0	227485.76	0.008986	1975 Hourl	2016	0	400	0	0	812.73169	2044.187
5	5	2016	0.04	0	1056.7	0	295297.47	105.42	16600	475.56	0	323921.81	0.006532	1975 Hourl	2016	1.53	400	4.337248	0	3282.4884	2115.8573
6	6	2016	0.04	0	1497.84	0	295303.72	200.92	16600	726.8	0	429851.89	0.002618	1975 Hourl	2016	3.05	400	1.738352	0	2850.0336	1125.3522
7	7	2016	0.87	0	2318.56	0	295299.59	467.47	16600	1133.29	0	576495.05	0.000642	1975 Hourl	2016	4.76	400	9.271764	0	1686.9198	370.10982
8	8	2016	0	0	139.51	0	296220.66	11.41	16600	34.58	0	116407.35	0.000642	1976 Hourl	2016	-4.76	400	0	0	3.0971722	74.733519
9	9	2016	0	0	270.29	0	296217.66	19.33	16600	56.57	0	168247.63	0.002618	1976 Hourl	2016	-3.05	400	0	0	40.030019	440.4723
10	10	2016	0	0	429.35	0	296223.19	30.06	16600	422.33	0	201248.87	0.006532	1976 Hourl	2016	-1.53	400	0	0	1184.4305	1314.5576
11	11	2016	0	0	520.29	0	296220.44	47.69	16600	320.61	0	278676.6	0.008986	1976 Hourl	2016	0	400	0	0	1498.9562	2504.1879
12	12	2016	0	0	894.96	0	296215.75	91.69	16600	622.79	0	345613.4	0.006532	1976 Hourl	2016	1.53	400	0	0	3640.7548	2257.5467
13	13	2016	0	0	1185.02	0	296018.47	150.21	16600	520.57	0	469074.56	0.002618	1976 Hourl	2016	3.05	400	0	0	1615.0072	1228.0372
14	14	2016	1.86	0	1650.58	0	296216.97	312.27	16600	1797.02	0	602352.14	0.000642	1976 Hourl	2016	4.76	400	19.822392	0	1904.2524	386.71007
15	15	2016	0	0	365.25	0	295305.47	24.42	16600	35.18	0	211368.83	0.000642	1977 Hourl	2016	-4.76	400	0	0	8.2493758	135.69879
16	16	2016	1.57	0	674.17	0	295302.84	46.75	16600	155.65	0	295570.05	0.002618	1977 Hourl	2016	-3.05	400	68.230316	0	274.71868	773.80239
17	17	2016	0	0	783.78	0	295302.88	58.44	16600	130.02	0	395912.01	0.006532	1977 Hourl	2016	-1.53	400	0	0	665.65702	2586.0972
18	18	2016	0.54	0	1256.39	0	295303.72	106.29	16600	287.47	0	531334.11	0.008986	1977 Hourl	2016	0	400	80.550504	0	3245.5135	4774.5683
19	19	2016	10.57	0	1940.6	0	295301.09	210.01	16600	383.91	0	687276.01	0.006532	1977 Hourl	2016	1.53	400	1146.117784	0	4866.4429	4489.2869
20	20	2016	45.09	0	3270	0	295302.03	517.67	16600	992.99	0	899602.82	0.002618	1977 Hourl	2016	3.05	400	1959.557292	0	8500.8484	2355.1602
21	21	2016	305.98	0	4410.41	0	295300.09	1216.14	16600	1364.52	0	1155316.1	0.000642	1977 Hourl	2016	4.76	400	3260.890056	0	3863.6155	741.71296
22	22	2016	0	0	171.15	0	295303.28	12.19	16600	35.45	0	111153.57	0.000642	1978 Hourl	2016	-4.76	400	0	0	3.8951857	71.360592
23	23	2016	0	0	333.99	0	295304.81	23.45	16600	85.4	0	169762.45	0.002618	1978 Hourl	2016	-3.05	400	0	0	74.672549	444.43809
24	24	2016	0	0	488.69	0	295297.44	36.83	16600	183.17	0	225587.52	0.006532	1978 Hourl	2016	-1.53	400	0	0	584.70118	1473.5377
25	25	2016	0.36	0	752.03	0	295305.03	62.97	16600	316.94	0	310861.21	0.008986	1978 Hourl	2016	0	400	53.700336	0	2141.7986	2793.3988
26	26	2016	3.54	0	1049.29	0	295301.81	108.5	16600	429.15	0	420180.9	0.006532	1978 Hourl	2016	1.53	400	383.846448	0	2941.3779	2744.6216
27	27	2016	21.69	0	1367.2	0	295299.69	202.95	16600	608.18	0	540529.84	0.002618	1978 Hourl	2016	3.05	400	942.621372	0	2176.8767	1415.1071
28	28	2016	72.85	0	2641.38	0	295305.53	685.2	16600	1856.59	0	731696.1	0.000642	1978 Hourl	2016	4.76	400	776.37702	0	3148.3421	469.7489
29	29	2016	0	0	122.96	0	295929.81	7.87	16600	42.27	0	95211.53	0.000642	1979 Hourl	2016	-4.76	400	0	0	3.3368073	61.125802
30	30	2016	0	0	225.61	0	295927.66	17.02	16600	76.2	0	146268.36	0.002618	1979 Hourl	2016	-3.05	400	0	0	45.0073	382.93057
31	31	2016	0	0	356.65	0	295927.38	23.67	16600	101.3	0	198627.87	0.006532	1979 Hourl	2016	-1.53	400	0	0	235.99231	1297.4372
32	32	2016	0	0	514.52	0	295929.91	45.6	16600	354.14	0	268432.28	0.008986	1979 Hourl	2016	0	400	0	0	1637.358	2412.1325
33	33	2016	0	0	893.17	0	295932.41	84.93	16600	561.71	0	363375.79	0.006532	1979 Hourl	2016	1.53	400	0	0	3277.1209	2373.5707
34	34	2016	0	0	1119.63	0	295930.09	148.03	16600	726.43	0	459584.3	0.002618	1979 Hourl	2016	3.05	400	0	0	2129.3053	1203.1917
35	35	2016	2.83	0	1637.29	0	295931.56	336.69	16600	1342.04	0	625083.33	0.000642	1979 Hourl	2016	4.76	400	30.159876	0	1410.6722	401.3035
36	36	2016	0	0	503.4	0	295479.31	36.43	16600	62.9	0	180188.96	0.000642	1980 Hourl	2016	-4.76	400	0	0	20.328198	115.68131
37	37	2016	1.18	0	856.83	0	295482.19	63.55	16600	196.24	0	252865.87	0.002618	1980 Hourl	2016	-3.05	400	51.281384	0	440.20183	662.00285
38	38	2016	0.4	0	1297.48	0	295480.69	94.22	16600	144.68	0	346378.79	0.006532	1980 Hourl	2016	-1.53	400	43.37248	0	1226.1832	2262.5463
39	39	2016	0.05	0	2064.66	0	295483.25	175.07	16600	301.06	0	452750.74	0.008986	1980 Hourl	2016	0	400	7.45838	0	5585.5766	4068.4181
40	40	2016	9.53	0	3041.05	0	295480.59	343.02	16600	548.13	0	568396.55	0.006532	1980 Hourl	2016	1.53	400	1033.349336	0	10888.13	3712.7663
41	41	2016	42.36	0	4665.88	0	295482.44	747.76	16600	960.79	0	753165.41	0.002618	1980 Hourl	2016	3.05	400	1840.914768	0	11736.313	1971.787
42	42	2016	152.17	0	6650.13	0	295482.25	1763.26	16600	1622.38	0	981912.39	0.000642	1980 Hourl	2016	4.76	400	1621.706124	0	6926.5623	630.38775
43	43	2016	0	0	108.28	0	296013.88	7.81	16600	32.4	0	68860.5	0.000642	1981 Hourl	2016	-4.76	400	0	0	2.2523106	44.208441
44	44	2016	0	0	188.4	0	296013.03	13.57	16600	100.87	0	103082.3	0.002618	1981 Hourl	2016	-3.05	400	0	0	49.752231	269.86946
45	45	2016	0	0	342.09	0	296011.75	24.09	16600	139.65	0	151569.78	0.006532	1981 Hourl	2016	-1.53	400	0	0	312.05238	990.0538
46	46	2016	0	0	389.11	0	296012.22	32.83	16600	204.81	0	199060.74	0.008986	1981 Hourl	2016	0	400	0	0	716.12686	1788.7598
47	47	2016	0.24	0	617.25	0	296013.44	66.75	16600	478.67	0	276364.63	0.006532	1981 Hourl	2016	1.53	400	26.023488	0	1929.9386	1805.2138
48	48	2016	4.6	0	1000.33	0	296011.53	133.78	16600	887.7	0	377957.26	0.002618	1981 Hourl	2016	3.05	400	199.91048	0	2324.7655	989.49211
49	49	2016	10.47	0	1358.2	0	294904.69	284.73	16600	894.79	0	512443.25	0.000642	1981 Hourl	2016	4.76	400	111.580884	0	780.22503	328.98857
50	50	2016	0	0	68.26	0	296814.22	6.59	16600	29.18	0	93927.51	0.000642	1982 Hourl	2016	-4.76	400	0	0	1.2787528	60.301461
51	51	2016	0	0	129.44	0	296815.06	10.02	16600	79.29	0	138105.35	0.002618	1982 Hourl	2016	-3.05	400	0	0	26.869313	361.55981
52	52	2016	0	0	204.7	0	296817.69	17.66	16600	133.38	0	186052.46	0.006532	1982 Hourl	2016	-1.53	400	0	0	178.34245	1215.2947
53	53	2016	0	0	307.46	0	296814.75	28.25	16600	155.94	0	262220.57	0.008986	1982 Hourl	2016	0	400	0	0	430.83658	2356.314
54	54	2016	0.56	0	551.35	0	296813.97	56.88	16600	366.84	0	338775.29	0.006532	1982 Hourl	2016	1.53	400	60.721472	0	1321.1443	2212.8802
55	55	2016	8.22	0	908.24	0	296813.78	130.33	16600	512.61	0	449900.04	0.002618	1982 Hourl	2016	3.05	400	357.231336	0	1218.8699	1177.8383
56	56	2016	38.14	0	1367.56	0	296814.25	327.11	16600	1118.84	0	601220.24	0.000642	1982 Hourl	2016	4.76	400	406.465608	0	982.31189	385.98339
57	57	2016	1.15	0	1989.65	0	295752.91	117.92	16600	60.57	0	309646.92	0.000642	1983 Hourl	2016	-4.76	400	12.25578	0	77.369411	198.79332
58	58	2016	2.01	0	2939.36	0	295759.59	179.98	16600	103.32	0	415242.52	0.002618	1983 Hourl	2016	-3.05	400	87.352188	0	795.07266	1087.1049
59	59	2016	20.15	0	4444.05	0	295760.69	366.39	16600	245.5	0	541542.2	0.006532	1983 Hourl	2016	-1.53	400	2184.88868	0	7126.5052	3537.3537
60	60	2016	144.75	0	6561.35	0	295759.31	941.08	16600	609.28	0	685499.43	0.008986	1983 Hourl	2016	0	400	21592.0101	0	35923.326	6159.8979
61	61	2016	397.25	0	8343.86	0	295761.44	2172.4	16600	991.58	0	875302.07	0.006532	1983 Hourl	2016	1.53	400	43074.2942	0	54043.186	5717.4731
62	62	2016	1977.51	0	9124.87	0	295755.91	4529.82	16600	1400.14	0	1080446.7	0.002618	1983 Hourl	2016	3.05	400	85940.21159	0	33447.818	2828.6095
63	63	2016	5930.63	0	8397.7	0	295757.06	6575.24	16600	1743.29	0	1357573.7	0.000642	1983 Hourl	2016	4.76	400	63203.91004	0	9398.6402	871.56232
64	64	2016	0	0	149.65	0	295299.5	10.24	16600	35.49	0	92902.38	0.000642	1984 Hourl	2016	-4.76	400	0	0	3.4097124	59.643328
65	65	2016	0	0	185.51	0	295300.22	14.82	16600	55.9	0	123058.71	0.002618	1984 Hourl	2016	-3.05	400	0	0	27.148684	322.1677
66	66	2016	0	0	338.86	0	295300.97	24.86	16600	101.8	0	177540.65	0.006532	1984 Hourl	2016	-1.53	400	0	0	225.32753	1159.6955
67	67	2016	0	0	533.23	0	295302.31	45.11	16600	327.51	0	234303.38	0.008986	1984 Hourl	2016	0	400	0	0	1569.2985	2105.4502
68	68	2016	0.48	0	761.86	0	295302.62	70.88	16600	274.13	0	313509.37	0.006532	1984 Hourl	2016	1.53	400	52.046976	0	1364.1996	2047.8432
69	69	2016	7.35	0	1080.27	0	295299.34	144.88	16600	535.74	0	399731.55	0.002618	1984 Hourl	2016	3.05	400	319.42218	0	1515.1514	1046.4972
70	70	2016	14.45	0	1535.64	0	295302.25	309.47	16600	1522.73	0	539888.11	0.000642	1984 Hourl	2016	4.76	400	153.99654	0	1501.2304	346.60817
71	71	2016	0	0	31.3	0	295932.41	3.14	16600	18.32	0	51993.3	0.000642	1985 Hourl	2016	-4.76	400	0	0	0.3681331	33.379699
72	72	2016	0	0	61.75	0	295931.59	6.69	16600	37.13	0	79838.48	0.002618	1985 Hourl	2016	-3.05	400	0	0	6.0024915	209.01714
73	73	2016	0	0	90.56	0	295931.62	8.83	16600	71.68	0	116927.27	0.006532	1985 Hourl	2016	-1.53	400	0	0	42.401438	763.76893
74	74	2016	0	0	261.34	0	295930.34	21.25	16600	270	0	156906.42	0.008986	1985 Hourl	2016	0	400	0	0	634.06833	1409.9611
75	75	2016	0.27	0	459.33	0	295930.56	47.34	16600	385	0	230536.96	0.006532	1985 Hourl	2016	1.53	400	29.276424	0	1155.1323	1505.8674
76	76	2016	0	0	513.45	0	295929.53	64.54	16600	401.79	0	294563.11	0.002618	1985 Hourl	2016	3.05	400	0	0	540.09098	771.16622
77	77	2016	0.13	0	983.23	0	295930.25	191.36	16600	807.82	0	423663.63	0.000642	1985 Hourl	2016	4.76	400	1.385436	0	509.92318	271.99205
78	78	2016	0	0	338.38	0	295849.72	23.81	16600	31.45	0	147520.37	0.000642	1986 Hourl	2016	-4.76	400	0	0	6.8321967	94.708078
79	79	2016	0	0	680.46	0	295845.41	44.25	16600	139.91	0	202598.53	0.002618	1986 Hourl	2016	-3.05	400	0	0	249.24187	530.40295
80	80	2016	0.24	0	1003.17	0	295845.97	71.9	16600	882.88	0	278473.26	0.006532	1986 Hourl	2016	-1.53	400	26.023488	0	5785.2535	1818.9873
81	81	2016	0	0	1603.77	0	295850.59	128.96	16600	336.89	0	375202.07	0.008986	1986 Hourl	2016	0	400	0	0	4855.0826	3371.5658
82	82	2016	3.04	0	2567.43	0	295843.47	270.17	16600	913.24	0	478195.74	0.006532	1986 Hourl	2016	1.53	400	329.630848	0	15315.448	3123.5746
83	83	2016	2.37	0	2940.53	0	295843	396.62	16600	1158.28	0	600926.37	0.002618	1986 Hourl	2016	3.05	400	102.997356	0	8916.7957	1573.2252
84	84	2016	0.11	0	4676.19	0	295846.31	876.3	16600	2297.73	0	787952.53	0.000642	1986 Hourl	2016	4.76	400	1.172292	0	6898.0474	505.86552
85	85	2016	0	0	250.88	0	296563	17.42	16600	73.6	0	121658.55	0.000642	1987 Hourl	2016	-4.76	400	0	0	11.854381	78.104789
86	86	2016	0	0	443.26	0	296560.25	29.67	16600	95.06	0	175596.78	0.002618	1987 Hourl	2016	-3.05	400	0	0	110.31282	459.71237
87	87	2016	0.2	0	711.83	0	296563.81	51.78	16600	116.63	0	246364.78	0.006532	1987 Hourl	2016	-1.53	400	21.68624	0	542.29143	1609.2547
88	88	2016	0	0	1202.49	0	296563.81	94.68	16600	247.1	0	336598.92	0.008986	1987 Hourl	2016	0	400	0	0	2670.0576	3024.6779
89	89	2016	2.86	0	1765.02	0	296562.59	192.74	16600	648.36	0	442167.61	0.006532	1987 Hourl	2016	1.53	400	310.113232	0	7475.0142	2888.2388
90	90	2016	1.71	0	2557.3	0	296561.34	349.53	16600	790.3	0	572187.85	0.002618	1987 Hourl	2016	3.05	400	74.314548	0	5291.0675	1497.9878
91	91	2016	14.47	0	3413.41	0	296562.34	688.47	16600	1475.48	0	755355.21	0.000642	1987 Hourl	2016	4.76	400	154.209684	0	3233.3805	484.93804
92	92	2016	0.04	0	969.03	0	296984.41	67.48	16600	57.11	0	220489.04	0.000642	1988 Hourl	2016	-4.76	400	0.426288	0	35.529117	141.55396
93	93	2016	0.16	0	1656.16	0	296981.81	113.83	16600	121.16	0	319375.57	0.002618	1988 Hourl	2016	-3.05	400	6.953408	0	525.32878	836.12524
94	94	2016	1.04	0	2556.92	0	296980.72	176.37	16600	169.87	0	414357.62	0.006532	1988 Hourl	2016	-1.53	400	112.768448	0	2837.135	2706.584
95	95	2016	3.54	0	4269.39	0	296983.78	346.27	16600	377.22	0	549328.89	0.008986	1988 Hourl	2016	0	400	528.053304	0	14471.947	4936.2694
96	96	2016	15.55	0	5320.75	0	296983.59	585.17	16600	716.68	0	688268.82	0.006532	1988 Hourl	2016	1.53	400	1686.10516	0	24908.313	4495.7719
97	97	2016	82.11	0	8535.92	0	296982.91	1381.2	16600	1150.31	0	904236.74	0.002618	1988 Hourl	2016	3.05	400	3568.402068	0	25706.022	2367.2918

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
1	**347**	**880**	**-**	**422**	94,827	-	-	6,990	87,837	0.001909	109,022	0
2					140,654	-	-	17,639	123,015	0.005927	120,218	1%
3					221,153	-	-	45,533	175,620	0.009822	143,365	2%
4					317,930	-	-	90,444	227,486	0.00763	143,920	3%
5					827,110	664	-	502,524	323,922	0.002261	188,646	3%
6					1,519,146	664	-	1,088,630	429,852	0.000791	197,708	3%
7					3,218,538	14,442	-	2,627,601	576,495	0.000231	203,528	3%
8					121,232	-	-	4,824	116,407	0.001909	209,426	3%
9					183,538	-	-	15,290	168,248	0.005927	214,991	4%
10					382,576	-	-	181,327	201,249	0.009822	224,473	5%
11					445,487	-	-	166,810	278,677	0.00763	228,248	5%
12					902,986	-	-	557,372	345,613	0.002261	229,283	6%
13					1,085,960	-	-	616,886	469,075	0.000791	242,500	6%
14					3,599,353	30,876	-	2,966,125	602,352	0.000231	250,277	6%
15					224,218	-	-	12,849	211,369	0.001909	277,692	6%
16					426,567	26,062	-	104,935	295,570	0.005927	291,005	6%
17					497,819	-	-	101,907	395,912	0.009822	353,134	7%
18					901,473	8,964	-	361,174	531,334	0.00763	355,667	8%
19					1,607,754	175,462	-	745,016	687,276	0.002261	380,649	8%
20					4,895,174	748,494	-	3,247,077	899,603	0.000791	425,126	9%
21					12,252,677	5,079,268	-	6,018,093	1,155,316	0.000231	443,005	9%
22					117,221	-	-	6,067	111,154	0.001909	459,794	9%
23					198,285	-	-	28,523	169,762	0.005927	464,875	9%
24					315,101	-	-	89,513	225,588	0.009822	478,024	10%
25					555,186	5,976	-	238,348	310,861	0.00763	527,816	11%
26					929,248	58,764	-	450,303	420,181	0.002261	528,488	11%
27					1,732,088	360,054	-	831,504	540,530	0.000791	657,945	11%
28					6,844,966	1,209,310	-	4,903,960	731,696	0.000231	686,032	11%
29					100,409	-	-	5,198	95,212	0.001909	704,430	12%
30					163,460	-	-	17,191	146,268	0.005927	722,238	12%
31					234,757	-	-	36,129	198,628	0.009822	733,829	13%
32					450,644	-	-	182,212	268,432	0.00763	741,486	14%
33					865,078	-	-	501,703	363,376	0.002261	747,370	14%
34					1,272,917	-	-	813,333	459,584	0.000791	771,253	14%
35					2,869,370	46,978	-	2,197,309	625,083	0.000231	773,594	14%
36					211,853	-	-	31,664	180,189	0.001909	779,958	14%
37					440,598	19,588	-	168,144	252,866	0.005927	828,854	15%
38					540,738	6,640	-	187,719	346,379	0.009822	872,140	16%
39					1,075,167	830	-	621,587	452,751	0.00763	902,862	17%
40					2,393,485	158,198	-	1,666,891	568,397	0.002261	943,531	17%
41					5,939,272	703,176	-	4,482,931	753,165	0.000791	999,497	17%
42					14,296,972	2,526,022	-	10,789,038	981,912	0.000231	1,109,237	17%
43					72,369	-	-	3,508	68,861	0.001909	1,132,014	17%
44					122,086	-	-	19,004	103,082	0.005927	1,192,000	18%
45					199,343	-	-	47,773	151,570	0.009822	1,193,734	19%
46					278,754	-	-	79,694	199,061	0.00763	1,245,870	20%
47					575,808	3,984	-	295,459	276,365	0.002261	1,320,162	20%
48					1,342,310	76,360	-	887,993	377,957	0.000791	1,350,031	20%
49					1,901,549	173,802	-	1,215,304	512,443	0.000231	1,354,764	20%
50					95,919	-	-	1,992	93,928	0.001909	1,356,709	20%
51					148,369	-	-	10,263	138,105	0.005927	1,378,640	21%
52					213,355	-	-	27,303	186,052	0.009822	1,421,904	22%
53					310,166	-	-	47,945	262,221	0.00763	1,676,255	23%
54					550,329	9,296	-	202,257	338,775	0.002261	1,729,401	23%
55					1,051,925	136,452	-	465,573	449,900	0.000791	1,742,479	23%
56					2,764,425	633,124	-	1,530,081	601,220	0.000231	1,850,406	23%
57					449,250	19,090	-	120,513	309,647	0.001909	1,941,428	23%
58					752,303	33,366	-	303,695	415,243	0.005927	2,036,736	24%
59					1,967,046	334,490	-	1,091,014	541,542	0.009822	2,041,425	25%
60					7,086,049	2,402,850	-	3,997,699	685,499	0.00763	2,092,130	25%
61					15,743,257	6,594,350	-	8,273,605	875,302	0.002261	2,188,714	26%
62					46,683,208	32,826,666	-	12,776,095	1,080,447	0.000791	2,195,207	26%
63					114,445,658	98,448,458	-	14,639,626	1,357,574	0.000231	2,227,632	26%
64					98,213	-	-	5,311	92,902	0.001909	2,411,082	26%
65					133,429	-	-	10,370	123,059	0.005927	2,444,724	26%
66					212,037	-	-	34,496	177,541	0.009822	2,503,670	27%
67					408,942	-	-	174,638	234,303	0.00763	2,535,728	28%
68					530,326	7,968	-	208,849	313,509	0.002261	2,548,812	28%
69					1,100,485	122,010	-	578,744	399,732	0.000791	2,617,251	29%
70					3,118,123	239,870	-	2,338,365	539,888	0.000231	2,627,493	29%
71					52,567	-	-	573	51,993	0.001909	2,661,838	29%
72					82,131	-	-	2,293	79,838	0.005927	2,891,157	29%
73					123,419	-	-	6,491	116,927	0.009822	2,938,201	30%
74					227,468	-	-	70,562	156,906	0.00763	3,219,947	31%
75					411,861	4,482	-	176,842	230,537	0.002261	3,538,075	31%
76					500,862	-	-	206,299	294,563	0.000791	3,677,336	31%
77					1,220,094	2,158	-	794,273	423,664	0.000231	3,686,640	31%
78					158,162	-	-	10,642	147,520	0.001909	3,780,047	32%
79					297,802	-	-	95,203	202,599	0.005927	3,845,735	32%
80					1,168,136	3,984	-	885,679	278,473	0.009822	4,130,755	33%
81					915,496	-	-	540,294	375,202	0.00763	4,130,838	34%
82					2,873,340	50,464	-	2,344,680	478,196	0.002261	4,350,615	34%
83					4,046,225	39,342	-	3,405,957	600,926	0.000791	4,391,543	34%
84					11,534,401	1,826	-	10,744,622	787,953	0.000231	4,466,305	34%
85					140,123	-	-	18,465	121,659	0.001909	4,718,059	34%
86					217,733	-	-	42,136	175,597	0.005927	5,237,078	35%
87					332,706	3,320	-	83,021	246,365	0.009822	5,490,119	36%
88					633,734	-	-	297,135	336,599	0.00763	5,797,910	37%
89					1,634,012	47,476	-	1,144,368	442,168	0.002261	5,842,819	37%
90					2,621,608	28,386	-	2,021,034	572,188	0.000791	5,875,578	37%
91					6,031,975	240,202	-	5,036,418	755,355	0.000231	6,082,609	37%
92					276,494	664	-	55,341	220,489	0.001909	6,195,418	37%
93					522,692	2,656	-	200,660	319,376	0.005927	6,483,090	38%
94					865,966	17,264	-	434,344	414,358	0.009822	6,508,522	39%
95					2,218,592	58,764	-	1,610,499	549,329	0.00763	6,863,782	40%
96					4,759,674	258,130	-	3,813,275	688,269	0.002261	6,910,469	40%
97					12,086,217	1,363,026	-	9,818,954	904,237	0.000791	7,038,401	40%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
98	98	2016	256.3	0	11349.39	0	296984.59	3056.36	16600	1708.55	0	1185225.9	0.000642	1988 Hourl	2016	4.76	400	2731.44036	0	12449.022	760.915					24,830,806	4,254,580	-	19,391,000	1,185,226	0.000231	7,272,700	40%
99	99	2016	0	0	108.53	0	295300.84	8.05	16600	99.1	0	76848.54	0.000642	1989 Hourl	2016	-4.76	400	0	0	6.9049174	49.336763					87,604	-	-	10,755	76,849	0.001909	7,775,271	40%
100	100	2016	0	0	129.05	0	295304.16	10.53	16600	49.24	0	111721.3	0.002618	1989 Hourl	2016	-3.05	400	0	0	16.635877	292.48636					118,076	-	-	6,354	111,721	0.005927	7,833,435	41%
101	101	2016	0	0	351.1	0	295302.44	27.7	16600	217.16	0	174602.18	0.006532	1989 Hourl	2016	-1.53	400	0	0	498.03153	1140.5014					250,847	-	-	76,245	174,602	0.009822	7,999,972	42%
102	102	2016	0.62	0	398.84	0	295303.84	34.34	16600	481.09	0	217007.54	0.008986	1989 Hourl	2016	0	400	92.483912	0	1724.2151	1950.0298					419,177	10,292	-	191,878	217,008	0.00763	8,045,866	43%
103	103	2016	0.96	0	681.86	0	295302.22	74.99	16600	669.09	0	295213.37	0.006532	1989 Hourl	2016	1.53	400	104.093952	0	2980.0663	1928.3337					767,375	15,936	-	456,226	295,213	0.002261	8,163,169	43%
104	104	2016	0	0	1082.66	0	295303.94	139.41	16600	484.71	0	396417.89	0.002618	1989 Hourl	2016	3.05	400	0	0	1373.8639	1037.822					921,194	-	-	524,776	396,418	0.000791	8,231,151	43%
105	105	2016	1.12	0	1929.77	0	295301.22	378.61	16600	1308.14	0	538984.36	0.000642	1989 Hourl	2016	4.76	400	11.936064	0	1620.6708	346.02796					3,081,986	18,592	-	2,524,409	538,984	0.000231	9,369,223	43%
106	106	2016	0	0	338.18	0	295302.88	24.87	16600	47.79	0	90479.41	0.000642	1990 Hourl	2016	-4.76	400	0	0	10.375761	58.087781					106,641	-	-	16,162	90,479	0.001909	9,397,053	43%
107	107	2016	0.37	0	632.02	0	295301.53	46.87	16600	170.12	0	123889.87	0.002618	1990 Hourl	2016	-3.05	400	16.079756	0	281.48538	324.34368					237,551	6,142	-	107,519	123,890	0.005927	9,547,561	44%
108	108	2016	0.61	0	943.23	0	295307.09	66.89	16600	158.38	0	165203.53	0.006532	1990 Hourl	2016	-1.53	400	66.143032	0	975.80743	1079.1095					324,718	10,126	-	149,389	165,204	0.009822	9,655,956	45%
109	109	2016	1.45	0	1566.05	0	295304.62	126.47	16600	305.69	0	223590.94	0.008986	1990 Hourl	2016	0	400	216.29302	0	4301.8303	2009.1882					726,387	24,070	-	478,726	223,591	0.00763	9,754,034	45%
110	110	2016	5.47	0	2152.83	0	295300.5	233.06	16600	460.24	0	291980.84	0.006532	1990 Hourl	2016	1.53	400	593.118664	0	6472.0263	1907.2188					1,373,601	90,802	-	990,818	291,981	0.002261	10,384,152	46%
111	111	2016	40.55	0	3013.63	0	295300.84	532.42	16600	876.38	0	380507.8	0.002618	1990 Hourl	2016	3.05	400	1762.25434	0	6914.3607	996.16942					3,694,723	673,130	-	2,641,085	380,508	0.000791	10,576,179	46%
112	112	2016	160.23	0	3959.66	0	295302.69	1233.02	16600	1588.68	0	501957.75	0.000642	1990 Hourl	2016	4.76	400	1707.603156	0	4038.5862	322.25688					9,452,408	2,659,818	-	6,290,633	501,958	0.000231	10,594,032	46%
113	113	2016	0	0	456.19	0	296218.81	31.39	16600	43.11	0	184855.51	0.000642	1991 Hourl	2016	-4.76	400	0	0	12.625797	118.67724					204,522	-	-	19,666	184,856	0.001909	11,306,273	46%
114	114	2016	0	0	672.79	0	296216.56	47.31	16600	88.68	0	244536.95	0.002618	1991 Hourl	2016	-3.05	400	0	0	156.19778	640.19774					304,200	-	-	59,663	244,537	0.005927	11,548,795	46%
115	115	2016	0	0	1088.57	0	296215.94	76.04	16600	159.76	0	323312.37	0.006532	1991 Hourl	2016	-1.53	400	0	0	1135.9797	2111.8764					497,222	-	-	173,910	323,312	0.009822	11,908,476	47%
116	116	2016	0	0	1694.44	0	296215.34	137.8	16600	634.9	0	425890.5	0.008986	1991 Hourl	2016	0	400	0	0	9667.1384	3827.052					1,501,690	-	-	1,075,800	425,891	0.00763	11,989,541	48%
117	117	2016	1.33	0	2654.03	0	296217.28	275.88	16600	656.89	0	545959.54	0.006532	1991 Hourl	2016	1.53	400	144.213496	0	11387.926	3566.2077					2,311,443	22,078	-	1,743,406	545,960	0.002261	12,247,502	48%
118	118	2016	9.87	0	3023.49	0	296218.19	421.03	16600	761.79	0	671553.62	0.002618	1991 Hourl	2016	3.05	400	428.938356	0	6029.9463	1758.1274					3,138,660	163,842	-	2,303,264	671,554	0.000791	12,524,581	49%
119	119	2016	29.2	0	4671.39	0	296214.59	953.59	16600	1891.13	0	873655.71	0.000642	1991 Hourl	2016	4.76	400	311.19024	0	5671.5601	560.88697					10,192,581	484,720	-	8,834,206	873,656	0.000231	13,887,491	49%
120	120	2016	0	0	61.12	0	295303.09	4	16600	30.78	0	51550.83	0.000642	1992 Hourl	2016	-4.76	400	0	0	1.2077777	33.095633					53,432	-	-	1,881	51,551	0.001909	15,002,594	49%
121	121	2016	0	0	102.64	0	295306.19	8.26	16600	56.67	0	75042.94	0.002618	1992 Hourl	2016	-3.05	400	0	0	15.227882	196.46242					80,860	-	-	5,817	75,043	0.005927	15,279,847	49%
122	122	2016	0	0	166.4	0	295304.56	12.38	16600	69.62	0	106381.68	0.006532	1992 Hourl	2016	-1.53	400	0	0	75.671705	694.88513					117,966	-	-	11,585	106,382	0.009822	15,736,127	50%
123	123	2016	0	0	257	0	295303.47	20.59	16600	174.93	0	137549.32	0.008986	1992 Hourl	2016	0	400	0	0	403.98369	1236.0182					182,506	-	-	44,957	137,549	0.00763	16,020,383	51%
124	124	2016	0.37	0	347.22	0	295302.41	34.37	16600	257.69	0	187106.17	0.006532	1992 Hourl	2016	1.53	400	40.119544	0	584.4515	1222.1775					282,723	6,142	-	89,475	187,106	0.002261	16,118,748	51%
125	125	2016	6.31	0	560.64	0	295305	66.41	16600	427.57	0	252074.79	0.002618	1992 Hourl	2016	3.05	400	274.225028	0	627.56823	659.9318					596,534	104,746	-	239,713	252,075	0.000791	16,326,879	51%
126	126	2016	13.65	0	802.07	0	295302.5	169.18	16600	789.69	0	346285.46	0.000642	1992 Hourl	2016	4.76	400	145.47078	0	406.63423	222.31527					1,206,262	226,590	-	633,387	346,285	0.000231	16,426,661	51%
127	127	2016	0.14	0	352.28	0	296391.94	25.68	16600	45.39	0	142644.08	0.000642	1993 Hourl	2016	-4.76	400	1.492008	0	10.265573	91.577499					160,958	2,324	-	15,990	142,644	0.001909	16,459,700	52%
128	128	2016	0.41	0	476.34	0	296389.09	37.62	16600	80.36	0	187290.64	0.002618	1993 Hourl	2016	-3.05	400	17.818108	0	100.21359	490.3269					232,375	6,806	-	38,279	187,291	0.005927	17,515,262	52%
129	129	2016	0	0	983.29	0	296391.62	69.1	16600	170.45	0	267086.1	0.006532	1993 Hourl	2016	-1.53	400	0	0	1094.7748	1744.6064					434,688	-	-	167,602	267,086	0.009822	18,203,651	53%
130	130	2016	0	0	1340.23	0	296389.81	112.82	16600	287.96	0	353443.65	0.008986	1993 Hourl	2016	0	400	0	0	3467.9906	3176.0446					739,376	-	-	385,933	353,444	0.00763	18,469,509	54%
131	131	2016	0.36	0	2086.61	0	296387.91	208.35	16600	453.63	0	470299.5	0.006532	1993 Hourl	2016	1.53	400	39.035232	0	6182.8574	3071.9963					1,422,824	5,976	-	946,549	470,300	0.002261	18,546,480	54%
132	132	2016	7.91	0	3011.08	0	296390.62	421.61	16600	641.4	0	593687.07	0.002618	1993 Hourl	2016	3.05	400	343.759108	0	5056.161	1554.2727					2,656,300	131,306	-	1,931,307	593,687	0.000791	18,628,799	54%
133	133	2016	50.59	0	4375.72	0	296389.25	975.04	16600	1288.25	0	802137.2	0.000642	1993 Hourl	2016	4.76	400	539.147748	0	3618.9677	514.97208					7,278,952	839,794	-	5,637,021	802,137	0.000231	19,954,558	54%
134	134	2016	0	0	153.75	0	295753.44	12.15	16600	43.33	0	103512.35	0.000642	1994 Hourl	2016	-4.76	400	0	0	4.276996	66.454929					110,174	-	-	6,662	103,512	0.001909	20,370,709	54%
135	135	2016	0	0	277.42	0	295759.53	22.62	16600	51.54	0	152888.08	0.002618	1994 Hourl	2016	-3.05	400	0	0	37.432758	400.26099					167,186	-	-	14,298	152,888	0.005927	20,655,614	55%
136	136	2016	0	0	597.41	0	295750.97	44.24	16600	117.47	0	217815.05	0.006532	1994 Hourl	2016	-1.53	400	0	0	458.40108	1422.7679					287,993	-	-	70,178	217,815	0.009822	20,799,395	56%
137	137	2016	0.2	0	816.86	0	295755	67.61	16600	222.48	0	295122.99	0.008986	1994 Hourl	2016	0	400	29.83352	0	1633.0708	2651.9752					480,178	3,320	-	181,735	295,123	0.00763	21,647,400	57%
138	138	2016	0.86	0	1216.44	0	295756.94	121.92	16600	450.76	0	389562.27	0.006532	1994 Hourl	2016	1.53	400	93.250832	0	3581.6425	2544.6207					952,161	14,276	-	548,322	389,562	0.002261	22,378,108	57%
139	139	2016	9.73	0	1828.34	0	295756.06	252.93	16600	711.93	0	507779.41	0.002618	1994 Hourl	2016	3.05	400	422.854124	0	3407.72	1329.3665					1,970,948	161,518	-	1,301,650	507,779	0.000791	22,403,865	57%
140	140	2016	36.52	0	2724.84	0	295755.47	588.67	16600	1492.25	0	677842.24	0.000642	1994 Hourl	2016	4.76	400	389.200944	0	2610.4635	435.17472					5,350,217	606,232	-	4,066,142	677,842	0.000231	22,468,085	57%
141	141	2016	0.49	0	704.41	0	295485.34	45.53	16600	62.01	0	226368.63	0.000642	1995 Hourl	2016	-4.76	400	5.222028	0	28.042858	145.32866					278,183	8,134	-	43,680	226,369	0.001909	22,712,944	57%
142	142	2016	0.26	0	1106.59	0	295483.91	73.3	16600	108.42	0	310404.04	0.002618	1995 Hourl	2016	-3.05	400	11.299288	0	314.09845	812.63778					434,697	4,316	-	119,976	310,404	0.005927	23,215,464	58%
143	143	2016	0.58	0	1637.75	0	295481.44	110.57	16600	190.36	0	404466.56	0.006532	1995 Hourl	2016	-1.53	400	62.890096	0	2036.43	2641.9756					725,857	9,628	-	311,762	404,467	0.009822	24,989,141	59%
144	144	2016	4.93	0	2415.12	0	295482.75	203.37	16600	324.27	0	516775.53	0.008986	1995 Hourl	2016	0	400	735.396268	0	7037.3945	4643.7449					1,381,764	81,838	-	783,151	516,776	0.00763	26,409,021	60%
145	145	2016	11.36	0	3667.26	0	295482.44	406.55	16600	690.12	0	679573.82	0.006532	1995 Hourl	2016	1.53	400	1231.778432	0	16531.509	4438.9762					3,398,999	188,576	-	2,530,849	679,574	0.002261	27,007,798	60%
146	146	2016	54.31	0	4932.63	0	295484.03	832.48	16600	940.3	0	858922.37	0.002618	1995 Hourl	2016	3.05	400	2360.247428	0	12142.682	2248.6588					6,398,620	901,546	-	4,638,152	858,922	0.000791	27,051,835	60%
147	147	2016	288.6	0	6759.3	0	295481.59	1923.5	16600	1707.55	0	1108212.9	0.000642	1995 Hourl	2016	4.76	400	3075.66792	0	7409.863	711.47268					17,440,816	4,790,760	-	11,541,843	1,108,213	0.000231	27,877,290	60%
148	148	2016	0	0	56.01	0	295393.72	5.28	16600	19.37	0	79626.27	0.000642	1996 Hourl	2016	-4.76	400	0	0	0.6965146	51.120065					80,711	-	-	1,085	79,626	0.001909	28,433,145	60%
149	149	2016	0	0	246.06	0	295391.88	18.67	16600	163.03	0	121123.69	0.002618	1996 Hourl	2016	-3.05	400	0	0	105.02149	317.10182					161,239	-	-	40,115	121,124	0.005927	29,053,865	61%
150	150	2016	0	0	344.3	0	295390.94	26.28	16600	141.06	0	175725.57	0.006532	1996 Hourl	2016	-1.53	400	0	0	317.23937	1147.8394					224,293	-	-	48,567	175,726	0.009822	32,023,523	62%
151	151	2016	0.62	0	607.53	0	295389.16	51.88	16600	224.82	0	240233.77	0.008986	1996 Hourl	2016	0	400	92.483912	0	1227.3519	2158.7407					387,111	10,292	-	136,585	240,234	0.00763	32,060,835	63%
152	152	2016	0.56	0	793.44	0	295389.97	75.22	16600	410.89	0	319707.55	0.006532	1996 Hourl	2016	1.53	400	60.721472	0	2129.5402	2088.3297					655,020	9,296	-	326,017	319,708	0.002261	32,590,320	63%
153	153	2016	0.11	0	1339.8	0	295388.22	173.38	16600	846.18	0	419229.35	0.002618	1996 Hourl	2016	3.05	400	4.780468	0	2968.0579	1097.5424					1,554,767	1,826	-	1,133,712	419,229	0.000791	33,652,538	63%
154	154	2016	0.3	0	2033.2	0	295388.06	414.74	16600	949.34	0	580010.35	0.000642	1996 Hourl	2016	4.76	400	3.19716	0	1239.1872	372.36664					2,515,188	4,980	-	1,930,198	580,010	0.000231	34,405,644	63%
155	155	2016	0	0	358.75	0	296243.53	24.19	16600	65.95	0	141072.28	0.000642	1997 Hourl	2016	-4.76	400	0	0	15.189439	90.568404					164,732	-	-	23,660	141,072	0.001909	34,493,339	63%
156	156	2016	0	0	433.52	0	296242.19	32.15	16600	146.42	0	200290.75	0.002618	1997 Hourl	2016	-3.05	400	0	0	166.18016	524.36118					263,767	-	-	63,476	200,291	0.005927	36,412,038	64%
157	157	2016	0.21	0	699.91	0	296243.31	49.1	16600	195.28	0	257797.44	0.006532	1997 Hourl	2016	-1.53	400	22.770552	0	892.78347	1683.9329					397,962	3,486	-	136,678	257,797	0.009822	36,677,631	65%
158	158	2016	0	0	1081.57	0	296245.03	92.51	16600	463.45	0	343448.74	0.008986	1997 Hourl	2016	0	400	0	0	4504.265	3086.2304					844,702	-	-	501,254	343,449	0.00763	36,818,664	65%
159	159	2016	0	0	1550.84	0	296240.03	152.66	16600	598.66	0	439580.69	0.006532	1997 Hourl	2016	1.53	400	0	0	6064.4778	2871.3411					1,368,007	-	-	928,426	439,581	0.002261	37,461,556	66%
160	160	2016	0.65	0	2168.86	0	296245.62	292.14	16600	703.76	0	577225.13	0.002618	1997 Hourl	2016	3.05	400	28.24822	0	3996.0024	1511.1754					2,114,372	10,790	-	1,526,357	577,225	0.000791	39,568,617	66%
161	161	2016	7.36	0	3227.96	0	296242.72	659.2	16600	1397.12	0	741424.53	0.000642	1997 Hourl	2016	4.76	400	78.436992	0	2895.3221	475.99455					5,373,448	122,176	-	4,509,847	741,425	0.000231	40,209,750	66%
162	162	2016	0	0	150.6	0	296283.31	12.1	16600	29.63	0	96523.16	0.000642	1998 Hourl	2016	-4.76	400	0	0	2.8647825	61.967869					100,985	-	-	4,462	96,523	0.001909	40,332,589	66%
163	163	2016	0	0	253.45	0	296279.28	18.07	16600	77.42	0	136185.04	0.002618	1998 Hourl	2016	-3.05	400	0	0	51.370655	356.53243					155,807	-	-	19,622	136,185	0.005927	40,705,017	66%
164	164	2016	0	0	340.09	0	296280.16	27.88	16600	84.57	0	188031.92	0.006532	1998 Hourl	2016	-1.53	400	0	0	187.86954	1228.2245					216,793	-	-	28,761	188,032	0.009822	41,071,294	67%
165	165	2016	0.56	0	716.24	0	296280.56	62.16	16600	285.52	0	261988.45	0.008986	1998 Hourl	2016	0	400	83.533856	0	1837.6446	2354.2282					475,785	9,296	-	204,501	261,988	0.00763	43,372,819	68%
166	166	2016	0	0	953.94	0	296281.56	93.47	16600	424.87	0	348437.95	0.006532	1998 Hourl	2016	1.53	400	0	0	2647.4228	2275.9967					753,738	-	-	405,300	348,438	0.002261	44,232,870	68%
167	167	2016	0	0	1373.84	0	296281.72	178.04	16600	537.55	0	453192.45	0.002618	1998 Hourl	2016	3.05	400	0	0	1933.4131	1186.4578					1,191,700	-	-	738,508	453,192	0.000791	44,528,449	69%
168	168	2016	1.82	0	2162.56	0	296281.88	432.42	16600	1401.25	0	609508.13	0.000642	1998 Hourl	2016	4.76	400	19.396104	0	1945.4444	391.30422					3,670,007	30,212	-	3,030,287	609,508	0.000231	46,582,851	69%
169	169	2016	0	0	1399.96	0	295301.84	85.59	16600	81.51	0	218704.31	0.000642	1999 Hourl	2016	-4.76	400	0	0	73.259095	140.40817					332,815	-	-	114,111	218,704	0.001909	48,581,465	69%
170	170	2016	1.58	0	2205.24	0	295300.88	140.4	16600	125.11	0	304388.54	0.002618	1999 Hourl	2016	-3.05	400	68.664904	0	722.29986	796.8892					606,514	26,228	-	275,898	304,389	0.005927	51,426,739	69%
171	171	2016	14.93	0	3307.46	0	295300.56	255.15	16600	215.67	0	399965.19	0.006532	1999 Hourl	2016	-1.53	400	1618.877816	0	4659.4056	2612.5726					1,361,123	247,838	-	713,320	399,965	0.009822	52,100,409	70%
172	172	2016	59.77	0	4703.74	0	295301	603.88	16600	472.42	0	511908.12	0.008986	1999 Hourl	2016	0	400	8915.747452	0	19968.158	4600.0064					3,726,231	992,182	-	2,222,141	511,908	0.00763	52,502,618	71%
173	173	2016	190.14	0	5943.71	0	295302.53	1321.89	16600	673.65	0	647428.13	0.006532	1999 Hourl	2016	1.53	400	20617.10837	0	26153.999	4229.0005					7,807,732	3,156,324	-	4,003,980	647,428	0.002261	53,171,077	71%
174	174	2016	1015.67	0	7394.76	0	295301.44	2687.36	16600	1109.55	0	825998.11	0.002618	1999 Hourl	2016	3.05	400	44139.7994	0	21480.313	2162.4631					25,890,976	16,860,122	-	8,204,856	825,998	0.000791	53,356,604	71%
175	175	2016	3164.06	0	7745.8	0	295302.94	4655.15	16600	1813.98	0	1053622.9	0.000642	1999 Hourl	2016	4.76	400	33720.02023	0	9020.5663	676.42591					67,627,745	52,523,396	-	14,050,726	1,053,623	0.000231	54,249,263	71%
176	176	2016	0	0	135.79	0	295650.09	8.96	16600	43.22	0	80961.53	0.000642	2000 Hourl	2016	-4.76	400	0	0	3.7677977	51.977302					86,830	-	-	5,869	80,962	0.001909	57,152,308	72%
177	177	2016	0	0	166.39	0	295649.75	11.78	16600	77.08	0	111210.51	0.002618	2000 Hourl	2016	-3.05	400	0	0	33.576743	291.14912					124,036	-	-	12,825	111,211	0.005927	58,924,586	72%
178	178	2016	0	0	193.88	0	295652.41	16.89	16600	81.29	0	162740.35	0.006532	2000 Hourl	2016	-1.53	400	0	0	102.94762	1063.02					178,501	-	-	15,761	162,740	0.009822	63,532,658	73%
179	179	2016	0.83	0	456.7	0	295648.44	38.07	16600	653.43	0	222744.88	0.008986	2000 Hourl	2016	0	400	123.809108	0	2681.6154	2001.5855					534,944	13,778	-	298,421	222,745	0.00763	66,106,372	74%
180	180	2016	0.08	0	690.59	0	295652.44	68.63	16600	352.26	0	306206.03	0.006532	2000 Hourl	2016	1.53	400	8.674496	0	1589.0216	2000.1378					550,801	1,328	-	243,267	306,206	0.002261	68,333,884	74%
181	181	2016	3.51	0	885.81	0	295654.41	116.98	16600	509.88	0	403450.66	0.002618	2000 Hourl	2016	3.05	400	152.540388	0	1182.4375	1056.2338					913,373	58,266	-	451,657	403,451	0.000791	68,792,792	74%
182	182	2016	8.39	0	1417.07	0	295655.28	290.65	16600	997.69	0	542926.1	0.000642	2000 Hourl	2016	4.76	400	89.413908	0	907.6574	348.55856					2,095,997	139,274	-	1,413,797	542,926	0.000231	69,786,060	74%
183	183	2016	0	0	160.24	0	296597.41	13.73	16600	25.12	0	81759.02	0.000642	2001 Hourl	2016	-4.76	400	0	0	2.5841969	52.489291					85,784	-	-	4,025	81,759	0.001909	70,328,618	74%
184	184	2016	0	0	231.42	0	296600.09	19.23	16600	51.11	0	116596.04	0.002618	2001 Hourl	2016	-3.05	400	0	0	30.96538	305.24843					128,424	-	-	11,828	116,596	0.005927	70,406,660	75%
185	185	2016	0	0	356.5	0	296598.09	28.75	16600	121.47	0	159816.28	0.006532	2001 Hourl	2016	-1.53	400	0	0	282.86209	1043.9199					203,120	-	-	43,304	159,816	0.009822	72,044,117	76%
186	186	2016	0.11	0	663.56	0	296599.59	55.75	16600	205.16	0	227272.78	0.008986	2001 Hourl	2016	0	400	16.408436	0	1223.3178	2042.2732					365,235	1,826	-	136,136	227,273	0.00763	72,195,618	77%
187	187	2016	0	0	1055.59	0	296598.84	101.93	16600	353.62	0	296468.15	0.006532	2001 Hourl	2016	1.53	400	0	0	2438.2502	1936.53					669,746	-	-	373,278	296,468	0.002261	72,694,374	77%
188	188	2016	0	0	1411.27	0	296596.84	185.14	16600	557.53	0	396374.23	0.002618	2001 Hourl	2016	3.05	400	0	0	2059.9088	1037.7077					1,183,200	-	-	786,825	396,374	0.000791	72,835,776	77%
189	189	2016	0.77	0	2142.72	0	296600.44	423.39	16600	1361.06	0	542087.22	0.000642	2001 Hourl	2016	4.76	400	8.206044	0	1872.3099	348.02					3,471,240	12,782	-	2,916,370	542,087	0.000231	74,649,699	77%
190	190	2016	0	0	378.52	0	295302.41	29.22	16600	30.58	0	164722.62	0.000642	2002 Hourl	2016	-4.76	400	0	0	7.4312409	105.75192					176,298	-	-	11,575	164,723	0.001909	76,593,401	77%
191	191	2016	0	0	781.26	0	295300.69	57.33	16600	83.62	0	244455.5	0.002618	2002 Hourl	2016	-3.05	400	0	0	171.03122	639.9845					309,784	-	-	65,329	244,456	0.005927	79,624,168	78%
192	192	2016	1.54	0	1327.45	0	295303.84	100.88	16600	166.76	0	331930.95	0.006532	2002 Hourl	2016	-1.53	400	166.984048	0	1445.9599	2168.173					578,861	25,564	-	221,366	331,931	0.009822	82,207,555	79%
193	193	2016	1.46	0	1726.54	0	295301.41	147.3	16600	394.19	0	414743.73	0.008986	2002 Hourl	2016	0	400	217.784696	0	6115.735	3726.8872					1,119,565	24,236	-	680,585	414,744	0.00763	86,599,260	80%
194	194	2016	5.6	0	2984.32	0	295302.59	324.74	16600	598.1	0	570497.02	0.006532	2002 Hourl	2016	1.53	400	607.21472	0	11659.109	3726.4865					2,448,379	92,960	-	1,784,922	570,497	0.002261	87,964,820	80%

No	Case	Year	EUE	Emergency Purchase	Reliability Purchases	Emergency Hydro Generation	Scheduled Hydro	Total IS Generation	EUE Weighted Cost	Reliability Purchase Weighted Cost	Emergency Purchase Weighted Cost	Fuel Reliability Costs	Case Probability	Selected Loads	Selected Records	LDF Errors	Iterations	EUE	Emergency Purchases	Reliability Purchases	Fuel Reliability Costs
195	195	2016	4.77	0	4012.82	0	295298.09	564.02	16600	832.19	0	739451.61	0.002618	2002 Hourl	2016	3.05	400	207.298476	0	8742.6243	1935.8843
196	196	2016	24.23	0	5567.96	0	295303.22	1238.77	16600	1072.22	0	938497.78	0.000642	2002 Hourl	2016	4.76	400	258.223956	0	3832.7901	602.51557
197	197	2016	0	0	113.24	0	295949.62	10.05	16600	26.21	0	92107.22	0.000642	2003 Hourl	2016	-4.76	400	0	0	1.9054691	59.132835
198	198	2016	0.18	0	254.25	0	295949.38	16.9	16600	116.37	0	132130.07	0.002618	2003 Hourl	2016	-3.05	400	7.822584	0	77.458956	345.91652
199	199	2016	0	0	345.55	0	295949	25.01	16600	122.05	0	180982.68	0.006532	2003 Hourl	2016	-1.53	400	0	0	275.48303	1182.1789
200	200	2016	0.67	0	541.01	0	295948.44	43.57	16600	190.01	0	241108.75	0.008986	2003 Hourl	2016	0	400	99.942292	0	923.73663	2166.6032
201	201	2016	0.05	0	804.76	0	295952.03	76.74	16600	484.81	0	320626.36	0.006532	2003 Hourl	2016	1.53	400	5.42156	0	2548.497	2094.3314
202	202	2016	2.06	0	1011.65	0	295950.41	131.11	16600	444.23	0	419859.49	0.002618	2003 Hourl	2016	3.05	400	89.525128	0	1176.543	1099.1921
203	203	2016	20.32	0	1924.72	0	295951	395.42	16600	1181.52	0	583274.98	0.000642	2003 Hourl	2016	4.76	400	216.554304	0	1459.9691	374.46254
204	204	2016	0	0	50.24	0	295298.84	3.58	16600	32.82	0	46829.74	0.000642	2004 Hourl	2016	-4.76	400	0	0	1.0585789	30.064693
205	205	2016	0	0	69.24	0	295301.16	5.82	16600	65.05	0	75455.87	0.002618	2004 Hourl	2016	-3.05	400	0	0	11.791634	197.54347
206	206	2016	0	0	122.93	0	295301.56	9.15	16600	90.78	0	98329.26	0.006532	2004 Hourl	2016	-1.53	400	0	0	72.894412	642.28673
207	207	2016	0	0	167.86	0	295300.81	14.06	16600	156.66	0	141068.09	0.008986	2004 Hourl	2016	0	400	0	0	236.30437	1267.6379
208	208	2016	0.35	0	313.13	0	295302.09	29.75	16600	366.3	0	186831.4	0.006532	2004 Hourl	2016	1.53	400	37.95092	0	749.21726	1220.3827
209	209	2016	2.6	0	505.09	0	295303.09	70.3	16600	527.32	0	264139.98	0.002618	2004 Hourl	2016	3.05	400	112.99288	0	697.28875	691.51847
210	210	2016	15.28	0	706.21	0	295298.41	149.84	16600	948.66	0	347355.61	0.000642	2004 Hourl	2016	4.76	400	162.842016	0	430.10994	223.0023
211	211	2016	0	0	564.28	0	296224.16	40.5	16600	33.7	0	166085.28	0.000642	2005 Hourl	2016	-4.76	400	0	0	12.208424	106.62675
212	212	2016	0	0	739.73	0	296225.94	51.71	16600	75.32	0	223705.81	0.002618	2005 Hourl	2016	-3.05	400	0	0	145.8657	585.66181
213	213	2016	0	0	1306.23	0	296222.81	93.58	16600	138.33	0	308083.97	0.006532	2005 Hourl	2016	-1.53	400	0	0	1180.2723	2012.4045
214	214	2016	5.27	0	1942.65	0	296223.88	163.24	16600	395.88	0	407525.51	0.008986	2005 Hourl	2016	0	400	786.113252	0	6910.7398	3662.0242
215	215	2016	7.97	0	2711.46	0	296225.97	295.47	16600	438.98	0	530866.43	0.006532	2005 Hourl	2016	1.53	400	864.196664	0	7774.8875	3467.6195
216	216	2016	43.2	0	4113.92	0	296224.62	668.15	16600	1081.25	0	690568.38	0.002618	2005 Hourl	2016	3.05	400	1877.42016	0	11645.325	1807.908
217	217	2016	140.59	0	5640.64	0	296229.88	1462.89	16600	1783.88	0	896338.79	0.000642	2005 Hourl	2016	4.76	400	1498.295748	0	6459.9484	575.4495
218	218	2016	0	0	365.2	0	295578.34	30.24	16600	32.35	0	144692.22	0.000642	2006 Hourl	2016	-4.76	400	0	0	7.5847292	92.892405
219	219	2016	0.52	0	599.52	0	295581.88	43.71	16600	72.07	0	191534.46	0.002618	2006 Hourl	2016	-3.05	400	22.598576	0	113.11699	501.43722
220	220	2016	0	0	966.5	0	295578.91	75.71	16600	132.04	0	266505.68	0.006532	2006 Hourl	2016	-1.53	400	0	0	833.59202	1740.8151
221	221	2016	0	0	1571.92	0	295584.69	125.76	16600	259.44	0	350097.86	0.008986	2006 Hourl	2016	0	400	0	0	3664.6609	3145.9794
222	222	2016	0.33	0	2765.97	0	295581.22	293.07	16600	547.97	0	459794.15	0.006532	2006 Hourl	2016	1.53	400	35.782296	0	9900.3472	3003.3754
223	223	2016	9.24	0	3859.63	0	295579.44	553.19	16600	683.65	0	605699.05	0.002618	2006 Hourl	2016	3.05	400	401.559312	0	6907.9492	1585.7201
224	224	2016	42.9	0	5269.63	0	295582.5	1193.3	16600	1499.34	0	772622.6	0.000642	2006 Hourl	2016	4.76	400	457.19388	0	5072.4208	496.02371
225	225	2016	1.17	0	1446.88	0	296275.09	93.39	16600	54.84	0	300734.29	0.000642	2007 Hourl	2016	-4.76	400	12.468924	0	50.940709	193.07141
226	226	2016	0.17	0	2423.95	0	296277.94	150.89	16600	99.39	0	405486.91	0.002618	2007 Hourl	2016	-3.05	400	7.387996	0	630.71911	1061.5647
227	227	2016	3.64	0	3506.82	0	296272.75	242.34	16600	225.48	0	524758.88	0.006532	2007 Hourl	2016	-1.53	400	394.689568	0	5164.9685	3427.725
228	228	2016	19.5	0	4968.28	0	296274.5	447.73	16600	351.08	0	659877.23	0.008986	2007 Hourl	2016	0	400	2908.7682	0	15673.954	5929.6568
229	229	2016	113.61	0	7345.99	0	296277.06	1018.65	16600	668.36	0	850348.25	0.006532	2007 Hourl	2016	1.53	400	12318.86863	0	32070.591	5554.4748
230	230	2016	317.51	0	9477.63	0	296275.19	2251.98	16600	1042.14	0	1062734.7	0.002618	2007 Hourl	2016	3.05	400	13798.60359	0	25858.031	2782.2394
231	231	2016	1605.98	0	11061.41	0	296277.22	4673.41	16600	1712.42	0	1331340.7	0.000642	2007 Hourl	2016	4.76	400	17115.25006	0	12160.623	854.72071
232	232	2016	0	0	193.45	0	295693.59	14.06	16600	124.14	0	110672.55	0.000642	2008 Hourl	2016	-4.76	400	0	0	15.417555	71.051777
233	233	2016	0	0	233.59	0	295695.97	18.5	16600	63.88	0	152041.61	0.002618	2008 Hourl	2016	-3.05	400	0	0	39.065087	398.04493
234	234	2016	0	0	375.56	0	295693.22	28.83	16600	99.18	0	213165.6	0.006532	2008 Hourl	2016	-1.53	400	0	0	243.3042	1392.3977
235	235	2016	0	0	602.96	0	295695.03	51.1	16600	169.8	0	292053.36	0.008986	2008 Hourl	2016	0	400	0	0	920.01012	2624.3915
236	236	2016	0	0	979.45	0	295697.31	102.23	16600	343.04	0	396801.92	0.006532	2008 Hourl	2016	1.53	400	0	0	2194.6901	2591.9101
237	237	2016	0.17	0	1458.38	0	295695.03	179.39	16600	538.5	0	523296.07	0.002618	2008 Hourl	2016	3.05	400	7.387996	0	2056.0139	1369.9891
238	238	2016	5.4	0	2439.05	0	295694.94	493.92	16600	1613.32	0	688390.45	0.000642	2008 Hourl	2016	4.76	400	57.54888	0	2526.2495	441.94667
239	239	2016	0	0	68.23	0	296140.22	5.86	16600	21.13	0	57542.56	0.000642	2009 Hourl	2016	-4.76	400	0	0	0.9255713	36.942324
240	240	2016	0	0	112.13	0	296141.34	8	16600	69	0	85673.36	0.002618	2009 Hourl	2016	-3.05	400	0	0	20.255387	224.29286
241	241	2016	0	0	203.85	0	296140	16.85	16600	93.63	0	124004.26	0.006532	2009 Hourl	2016	-1.53	400	0	0	124.67286	809.99583
242	242	2016	0	0	360.85	0	296141.72	32.51	16600	200.26	0	173598.83	0.008986	2009 Hourl	2016	0	400	0	0	649.3627	1559.9591
243	243	2016	1.92	0	509.88	0	296140.97	54.57	16600	394.33	0	231791.84	0.006532	2009 Hourl	2016	1.53	400	208.187904	0	1313.3303	1514.0643
244	244	2016	6.88	0	735.91	0	296143.66	109.04	16600	580.68	0	302921.74	0.002618	2009 Hourl	2016	3.05	400	298.996544	0	1118.7453	793.04912
245	245	2016	45.49	0	1112.57	0	296142.97	267.09	16600	974.59	0	416064.14	0.000642	2009 Hourl	2016	4.76	400	484.796028	0	696.12034	267.11318

No	**Production Costs**	**Reliability Purchases**	**Emergency Purchases**	**EUE**						Case Probability		
195					4,158,062	79,182	-	3,339,429	739,452	0.000791	88,571,023	80%
196					7,310,794	402,218	-	5,970,078	938,498	0.000231	90,309,566	80%
197					95,075	-	-	2,968	92,107	0.001909	94,094,187	80%
198					164,705	2,988	-	29,587	132,130	0.005927	98,416,062	81%
199					223,157	-	-	42,174	180,983	0.009822	98,995,558	82%
200					355,028	11,122	-	102,797	241,109	0.00763	99,617,665	83%
201					711,612	830	-	390,156	320,626	0.002261	102,624,792	83%
202					903,461	34,196	-	449,405	419,859	0.000791	103,958,743	83%
203					3,194,682	337,312	-	2,274,095	583,275	0.000231	111,163,903	83%
204					48,479	-	-	1,649	46,830	0.001909	111,220,968	83%
205					79,960	-	-	4,504	75,456	0.005927	113,151,289	84%
206					109,489	-	-	11,160	98,329	0.009822	120,017,937	85%
207					167,365	-	-	26,297	141,068	0.00763	128,116,668	85%
208					307,341	5,810	-	114,700	186,831	0.002261	131,686,654	86%
209					573,644	43,160	-	266,344	264,140	0.000791	134,232,169	86%
210					1,270,957	253,648	-	669,953	347,356	0.000231	141,560,469	86%
211					185,102	-	-	19,016	166,085	0.001909	152,164,386	86%
212					279,422	-	-	55,716	223,706	0.005927	152,791,291	86%
213					488,775	-	-	180,691	308,084	0.009822	154,141,004	87%
214					1,264,064	87,482	-	769,056	407,526	0.00763	154,307,650	88%
215					1,853,445	132,302	-	1,190,277	530,866	0.002261	155,440,488	88%
216					5,855,864	717,120	-	4,448,176	690,568	0.000791	168,609,612	89%
217					13,292,358	2,333,794	-	10,062,225	896,339	0.000231	173,602,129	89%
218					156,506	-	-	11,814	144,692	0.001909	178,393,042	89%
219					243,374	8,632	-	43,207	191,534	0.005927	194,691,350	89%
220					394,122	-	-	127,617	266,506	0.009822	201,121,877	90%
221					757,917	-	-	407,819	350,098	0.00763	218,466,770	91%
222					1,980,941	5,478	-	1,515,669	459,794	0.002261	220,083,156	91%
223					3,397,719	153,384	-	2,638,636	605,699	0.000791	233,436,273	91%
224					9,385,730	712,140	-	7,900,967	772,623	0.000231	240,920,423	91%
225					399,503	19,422	-	79,347	300,734	0.001909	247,003,123	92%
226					649,225	2,822	-	240,916	405,487	0.005927	255,710,340	92%
227					1,375,901	60,424	-	790,718	524,759	0.009822	267,759,921	93%
228					2,727,841	323,700	-	1,744,264	659,877	0.00763	293,640,818	94%
229					7,646,040	1,885,926	-	4,909,766	850,348	0.002261	307,790,568	94%
230					16,210,418	5,270,666	-	9,877,017	1,062,735	0.000791	329,742,447	94%
231					46,932,388	26,659,268	-	18,941,780	1,331,341	0.000231	350,116,554	94%
232					134,687	-	-	24,015	110,673	0.001909	356,130,897	94%
233					166,963	-	-	14,922	152,042	0.005927	380,018,127	95%
234					250,414	-	-	37,248	213,166	0.009822	486,445,455	96%
235					394,436	-	-	102,383	292,053	0.00763	506,106,199	97%
236					732,792	-	-	335,991	396,802	0.002261	525,352,390	97%
237					1,311,456	2,822	-	785,338	523,296	0.000791	620,240,191	97%
238					4,712,999	89,640	-	3,934,968	688,390	0.000231	723,919,443	97%
239					58,984	-	-	1,442	57,543	0	723,919,444	97%
240					93,410	-	-	7,737	85,673	0	723,919,445	98%
241					143,091	-	-	19,086	124,004	0	723,919,446	99%
242					245,863	-	-	72,264	173,599	0	723,919,447	100%
243					464,725	31,872	-	201,061	231,792	0	723,919,448	100%
244					844,458	114,208	-	427,328	302,922	0	723,919,449	100%
245					2,255,498	755,134	-	1,084,300	416,064	0	723,919,450	100%

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-52

Responding Witness: Paul W. Thompson

Q1-52. Please explain in detail how KU (acting alone or in conjunction with affiliates) treats interruptible/curtailable load in:

a. Developing its long-run load forecast?

b. Determining its long-run need for future supply-side resources?

c. Determining its need for operating reserve capacity?

d. Providing ancillary services?

e. Determining whether such load qualifies as spinning reserve?

A1-52. a. In the long-run load forecast, curtailable customers are viewed as a resource that can be called upon after all other resources have been exhausted. This is done to comply with the specific language of the most recently approved curtailable service riders, CSR 10 and CSR 30. The forecasted usage for curtailable customers is based on historical usage and specific customer information.

b. Despite the fact that existing CSR customers can terminate their CSR contracts with only six months' notice, the Companies assume that the CSR contracts will continue to exist in the future and consider the availability of CSR capacity in the determination of its long-run need for future supply-side resources.

c. Interruptible/curtailable load is assumed to be available on a limited basis for operating reserve capacity during 'system reliability' events. The *LG&E and KU 2011 Reserve Margin Study* submitted as part of the 2011 Integrated Resource Plan considered the need to carry operating reserve capacity. The availability of CSR capacity was considered in meeting this need.

d. LG&E does not consider interruptible/curtailable load in providing ancillary services.

e. With one exception, the Companies do not have real-time interruptible/curtailable load information. Therefore, it cannot be considered as spinning reserves.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-53

Responding Witness: Paul W. Thompson

Q1-53. Identify all reserve sharing and/or coordination arrangements that KU has with other utility systems or organizations, and provide a current copy or identify a Web link to a current copy of all agreements related to such arrangements.

A1-53. The Company provided the requested information in Case No. 2009-00548 in its response to KIUC DR 1-7, dated March 15, 2010, which the Company hereby incorporates by reference. The Company provided the requested information in Case No. 2009-00548 under a petition for confidential protection.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-54

Responding Witness: Robert M. Conroy

Q1-54. Please explain in detail how KU treats curtailment buy-though revenues in setting base rates. Please explain in detail how buy-through revenues are treated in KU's Fuel Adjustment Clause. Please state whether KU applies an Environmental Surcharge or Fuel Adjustment Charge to buy-through purchases.

A1-54. The Company reduces purchased power expense and kWh by the amount of buy-through power to ensure that retail customers' FAC reflects only those power purchases used to supply native load. Buy-through power charges are not included in revenue subject to the Environmental Surcharge. The Fuel Adjustment Charge is not applied to buy-through energy.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-55

Responding Witness: Robert M. Conroy

Q1-55. Please identify and explain in detail how KU treats test-year curtailment buy-though revenues in the electric cost-of-service study filed in this case.

A1-55. Curtailment buy-through revenues are included in Sales shown on page 23 and 24 of Conroy Exhibit C4.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-56

Responding Witness: Robert M. Conroy

Q1-56. Please identify and explain in detail how KU treats test-year curtailment credits paid to CSR10 and CSR30 customers in the electric cost-of-service study filed in this case.

A1-56. Curtailment credits are specifically assigned to the customers who received curtailment credits during the test year. See page 23-24 of Conroy Exhibit C4.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-57

Responding Witness: Lonnie E. Bellar

Q1-57. Please identify and explain in detail all situations other than a system reliability event in which KU would need or want to physically curtail load under the proposed CSR riders.

A1-57. See the response to PSC 2-72(c).

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-58

Responding Witness: Lonnie E. Bellar

Q1-58. Since Riders CSR10 and CSR30 were first approved by the Commission, please provide the following for each instance in which KU would have issued a physical curtailment request but was prevented from doing so by restrictions in each rider limiting the basis for a physical curtailment:

a. Date, time, and duration of occurrence.

b. Reason(s) (for example, operating, market, and/or reliability conditions) for desiring a physical curtailment.

c. MW of CSR load needed to alleviate conditions listed in item (b) above.

d. Action(s) taken by KU other than physical curtailment of CSR load to alleviate conditions listed in item (b) above.

A1-58. Circumstances surrounding potential curtailment events in which the Company was not able to curtail CSR customers are not tracked.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-59

Responding Witness: Lonnie E. Bellar

Q1-59. Please provide KU's current estimated cost in 2012 dollars of an installed combustion turbine. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this estimate.

A1-59. KU's current estimated cost of an installed CT in 2012 dollars is $882/kW, which is based on the Companies' 2011 Integrated Resource Plan cost of an installed combustion turbine escalated from 2010 dollars. For supporting documentation, please refer to Companies' 2011 Integrated Resource Plan (Case No. 2011-00140) in the Supply-Side Analysis contained in Volume III. See also the response to Question No. 63,

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-60

Responding Witness: Lonnie E. Bellar

Q1-60. Please provide a levelized fixed charge rate for a new combustion turbine using KU's cost of capital and tax rates. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A1-60. LG&E and KU use a single fixed charge rate to evaluate supply side alternatives based on the Companies' cost of capital and tax rates. The levelized fixed charge rate for a combustion turbine is 9.62% (see attached). For supporting documentation, please refer to the Companies' 2011 Integrated Resource Plan (Case No. 2011-00140) in the Supply-Side Analysis contained in Volume III and the attached document for more information. See also the response to Question No. 63.

```
IN-SERVICE COST    100.00                   COST OF REMOVAL     0.00
BOOK LIFE (YRS)        30                   TAX LIFE (YRS)        15
CONSTRUCTION YEARS (10 MAX)  0            CAPITAL ESC RATE (%)  2.50
ANNUAL EXPEND (%)      100    0    0    0    0    0    0    0    0    0
ELIGIBLE FOR CWIP       95.94       GENERATION PROJECT? (Y OR N)    Y

AFUDC DATA (%)                          RATIO      COST
     EQUITY                             53.48     10.50
     DEBT                               46.52      3.84

FINANCIAL DATA  (%)                     RATIO      COST
     PREFERRED STOCK                     0.00      0.00
     COMMON STOCK                       53.48     10.50
     DEBT                               46.52      3.84
WEIGHTED AVERAGE COST OF CAPITAL                   7.40

TAX RATES (%)
INCOME         38.90         GROSS RECEIPTS      00.00
AD-VALOREM      0.15         CAPITALIZED INT      3.84

INSURANCE RATE (%)       0.124

TAX DEPRECIATION METHOD  -3-       DEC BAL RATE -1.50-
           1 = STRAIGHT LINE
           2 = DECLINING BALANCE
           3 = DECLINING SWITCH TO STRAIGHT LINE
           4 = SUM OF YEARS DIGITS
           5 = SUM OF YEARS DIGITS SWITCH TO STRAIGHT LINE
           6 = ACCRELATED COST RECOVERY SYSTEM
           7 = SINKING FUND
```

IN-SERVICE PERIOD

YR	INVEST	UNRCVD INV BOOK	BOOK DEPR	TAX DEPR TYPE	UNRCVD INV TAX	TAX DEPR	TAX DEFR	ACUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	AD VAL TAX	INS COST	REV REQ	DISC RATE	PV OF REV REQ	ACCUM PV OF REV REQ	PROJ TO DATE FCR
1	100.00	100.00	1.67	2	100.00	5.00	1.30	1.30	5.45	1.73	2.17	0.08	0.06	12.46	1.000	12.46	12.46	12.46
2	0.00	98.33	3.33	2	95.00	9.50	2.40	3.70	5.13	1.63	0.87	0.15	0.12	13.63	0.931	12.69	25.14	13.02
3	0.00	95.00	3.33	2	85.50	8.55	2.03	5.72	4.83	1.54	1.04	0.14	0.12	13.03	0.867	11.30	36.44	13.02
4	0.00	91.67	3.33	2	76.95	7.70	1.70	7.42	4.54	1.45	1.20	0.14	0.12	12.48	0.807	10.07	46.51	12.90

5	0.00	88.33	3.33	2	69.25	6.93	1.40	8.82	4.28	1.36	1.33	0.13	0.12	11.95	0.752	8.98	55.50	12.74
6	0.00	85.00	3.33	2	62.33	6.23	1.13	9.95	4.03	1.28	1.44	0.13	0.12	11.46	0.700	8.02	63.51	12.56
7	0.00	81.67	3.33	1	56.10	5.90	1.00	10.95	3.78	1.20	1.41	0.12	0.12	10.98	0.652	7.15	70.66	12.38
8	0.00	78.33	3.33	1	50.19	5.90	1.00	11.95	3.54	1.13	1.25	0.12	0.12	10.50	0.607	6.37	77.03	12.20
9	0.00	75.00	3.33	1	44.29	5.90	1.00	12.95	3.30	1.05	1.10	0.11	0.12	10.02	0.565	5.66	82.69	12.02
10	0.00	71.67	3.33	1	38.38	5.90	1.00	13.95	3.05	0.97	0.94	0.11	0.12	9.53	0.526	5.01	87.70	11.84
11	0.00	68.33	3.33	1	32.48	5.90	1.00	14.95	2.81	0.89	0.79	0.10	0.12	9.05	0.490	4.43	92.14	11.67
12	0.00	65.00	3.33	1	26.57	5.90	1.00	15.95	2.57	0.82	0.63	0.10	0.12	8.57	0.456	3.91	96.04	11.50
13	0.00	61.67	3.33	1	20.67	5.90	1.00	16.95	2.32	0.74	0.48	0.09	0.12	8.09	0.424	3.44	99.48	11.34
14	0.00	58.33	3.33	1	14.76	5.90	1.00	17.95	2.08	0.66	0.32	0.09	0.12	7.61	0.395	3.01	102.49	11.18
15	0.00	55.00	3.33	1	8.86	5.90	1.00	18.95	1.84	0.58	0.17	0.08	0.12	7.13	0.368	2.62	105.11	11.02
16	0.00	51.67	3.33	1	2.95	2.95	-0.15	18.80	1.66	0.53	1.20	0.08	0.12	6.78	0.343	2.32	107.43	10.87
17	0.00	48.33	3.33	0	0.00	0.00	-1.30	17.51	1.54	0.49	2.28	0.07	0.12	6.55	0.319	2.09	109.52	10.74
18	0.00	45.00	3.33	0	0.00	0.00	-1.30	16.21	1.43	0.45	2.21	0.07	0.12	6.32	0.297	1.88	111.40	10.61
19	0.00	41.67	3.33	0	0.00	0.00	-1.30	14.91	1.32	0.42	2.13	0.06	0.12	6.09	0.277	1.68	113.08	10.50
20	0.00	38.33	3.33	0	0.00	0.00	-1.30	13.62	1.20	0.38	2.06	0.06	0.12	5.86	0.258	1.51	114.59	10.39
21	0.00	35.00	3.33	0	0.00	0.00	-1.30	12.32	1.09	0.35	1.99	0.05	0.12	5.63	0.240	1.35	115.94	10.29
22	0.00	31.67	3.33	0	0.00	0.00	-1.30	11.02	0.97	0.31	1.92	0.05	0.12	5.41	0.223	1.21	117.15	10.19
23	0.00	28.33	3.33	0	0.00	0.00	-1.30	9.73	0.86	0.27	1.84	0.04	0.12	5.18	0.208	1.08	118.23	10.10
24	0.00	25.00	3.33	0	0.00	0.00	-1.30	8.43	0.74	0.24	1.77	0.04	0.12	4.95	0.194	0.96	119.18	10.02
25	0.00	21.67	3.33	0	0.00	0.00	-1.30	7.13	0.63	0.20	1.70	0.03	0.12	4.72	0.180	0.85	120.04	9.94
26	0.00	18.33	3.33	0	0.00	0.00	-1.30	5.84	0.51	0.16	1.62	0.03	0.12	4.49	0.168	0.75	120.79	9.87
27	0.00	15.00	3.33	0	0.00	0.00	-1.30	4.54	0.40	0.13	1.55	0.02	0.12	4.26	0.156	0.67	121.45	9.79
28	0.00	11.67	3.33	0	0.00	0.00	-1.30	3.24	0.29	0.09	1.48	0.02	0.12	4.03	0.145	0.59	122.04	9.73
29	0.00	8.33	3.33	0	0.00	0.00	-1.30	1.95	0.17	0.05	1.41	0.01	0.12	3.81	0.135	0.52	122.56	9.66
30	0.00	5.00	3.33	0	0.00	0.00	-1.30	0.65	0.06	0.02	1.33	0.01	0.12	3.58	0.126	0.45	123.01	9.60
31	0.00	1.67	1.67	0	0.00	0.00	-0.65	0.00	-0.00	-0.00	0.65	0.00	0.06	1.73	0.117	0.20	123.21	9.53
																	30 Yr Fcr =	9.62

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-61

Responding Witness: Lonnie E. Bellar

Q1-61. Please provide the estimated fixed O&M for a new combustion turbine in 2012 dollars. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A1-61. The estimated fixed O&M for a new CT in 2012 dollars is $5.14/kW, which is based on the Companies' 2011 Integrated Resource Plan fixed O&M for a new CT escalated from 2010 dollars. For supporting documentation, please refer to Companies' 2011 Integrated Resource Plan (Case No. 2011-00140) in the Supply-Side Analysis contained in Volume III. See also the response to Question No. 63.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-62

Responding Witness: Lonnie E. Bellar

Q1-62. Please provide KU's required reserve margin for capacity planning. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A1-62. The Company's required reserve margin range for capacity planning is 15-17%. Please see the *LG&E and KU 2011 Reserve Margin Study* submitted as part of the 2011 Integrated Resource Plan, Case No. 2011-00140. See also the response to Question No. 63.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-63

Responding Witness: Lonnie E. Bellar

Q1-63. Please provide a copy of KU's most recent integrated resource plan.

A1-63. A public, redacted version of KU's most recent integrated resource plan is available online at:

http://www.psc.state.ky.us/Home/Library?type=Cases&folder=2011 cases/2011-00140

An unredacted version of KU's most recent integrated resource plan is being provided herewith pursuant to a petition for confidential protection and in accordance with the procedures for filing confidential information set out in the Commission's June 22, 2012 Order in this proceeding.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-64

Responding Witness: Lonnie E. Bellar

Q1-64. Referring to KU's CSR riders:

a. Please identify the maximum MW eligible for service under the proposed CRS riders.

b. Explain in detail the rationale for the total requirements limit in the Availability of Service section of CSR riders.

c. For each day of the test year in which KU called a curtailment with an economic buy-through, please identify the NGP for that day and provide a copy of the source data for the NGP.

d. Provide all workpapers, studies, analyses, and documents supporting and/or underlying KU's decision to price buy-though power using an automatic, formula-based mechanism.

e. Provide all workpapers, studies, analyses, and documents supporting and/or underlying the heat rate reflected in the proposed buy-through formula.

f. Provide all documents relating to any customer comments and/or feedback that KU received regarding the proposed reductions in rate credits under the CSR riders prior to KU's deciding to include the reduced credits in the CSR riders.

g. Describe in detail conditions that will trigger KU's decision to call a buy-through curtailment.

h. Describe in detail conditions that will trigger KU's decision to call a physical curtailment.

A1-64. a. The maximum MW eligible for service is 100 in excess of the amount currently served.

b. The total requirements limit is intended to limit the Company's risk exposure given the restrictions and termination rights that are components of the rider.

c. During the test year, KU called a curtailment on the following days:

6/7/2011
6/8/2011
6/9/2011
7/11/2011
7/12/2011
7/18/2011
7/20/2011
7/21/2011
7/22/2011
7/27/2011
7/28/2011
7/29/2011
8/1/2011
8/2/2011
8/8/2011
9/1/2011
9/2/2011

KU obtained the NGP for each of the days listed above from Platt's Gas Daily. Because the NGP and the corresponding source data are proprietary to Platt's, KU cannot provide this information without Platt's permission. KU has requested, but not yet received, the required permission. KU will supplement this response to provide the NGP and corresponding source data if and when permission is received.

d. There are no work papers. The business reasons for this approach were ease of implementation for the Companies and to provide price transparency for customers.

e. Though no studies were performed, the heat rate in the proposed buy through formula corresponds to the heat rate of several of the Companies' combustion turbines.

f. No such documents exist.

g. Buy-through curtailment requests under the CSR rider are issued at KU's sole discretion for economic reasons, typically at time of high load and high gas prices.

h. Currently, KU issues physical curtailment requests according to the criteria stated in its tariff, i.e., during "system reliability events." KU's proposal is to be able to issue physical curtailment requests at its discretion for reliability or economic reasons.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-65

Responding Witness: Lonnie E. Bellar

Q1-65. Please identify the terms and provisions that KU would insist on including in the proposed CSR riders in exchange for leaving the current CSR curtailable rate credits unchanged. Please explain the response in detail.

A1-65. KU has not performed the analysis necessary to respond to this request. It is possible that multiple hypothetical combinations of terms and provisions could support maintaining the current CSR credits, or that no such combination could support it. KU did not seek to find such a combination because supporting a particular level of CSR credits is not KU's objective; rather, KU's objective is to provide safe, reliable, and lowest-reasonable-cost service to all its customers. KU believes its overall CSR credit proposal furthers that objective.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-66

Responding Witness: Lonnie E. Bellar

Q1-66. Provide in native format all workpapers, studies, analyses, and documents supporting and/or underlying the $16 per kW Non-Compliance Charge in the proposed CSR riders.

A1-66. The $16 per kW Non-Compliance Charge was introduced in the proposed CSR rates filed in Case No. 2003-00433 and reflected approximately 4 months of the $4.05/kW primary voltage credit proposed in Case No. 2009-00548. See page 75 of Mr. William Steven Seelye's direct testimony in Case No. 2003-00434. The charge was introduced to ensure customer compliance when a curtailment is called and has remained the same since its implementation in 2003.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated July 31, 2012

Question No. 1-67

Responding Witness: Lonnie E. Bellar

Q1-67. Referring to witness Bellar's direct testimony regarding the CSR riders:

a. Explain in detail why prices in the most recent PJM demand response auction are relevant for evaluating the credits in KU's proposed CSR riders.

b. Explain KU's understanding of how many hours of physical interruption/curtailment a demand response resource in PJM would be subject to in order to receive the demand response price developed in PJM's most recent demand response auction.

c. Does witness Bellar agree that the revenue requirement for KU's installed combustion turbine capacity in this case should reflect and/or approximate the current market price for demand response resources in PJM or other wholesale markets? Please explain the response in detail.

d. Does witness Bellar agree that the revenue requirement for KU's combustion turbine capacity in this case should reflect and/or approximate the current market price for combustion turbine resources in PJM or other wholesale markets? Please explain the response in detail.

e. Does witness Bellar agree (see Bellar direct at 11) that the CSR credits should reflect value of service pricing principles instead of cost-of-service pricing principles? Please explain the response in detail.

f. Does witness Bellar agree that the revenue requirement in this case for KU's installed generating resources should reflect value-of-service pricing principles instead of cost-of-service pricing principles? Please explain the response in detail.

g. Did witness Bellar and/or KU examine the potential customer-specific and service-area economic impacts of reducing the existing CSR credits? If such examinations were conducted, provide all workpapers, studies, analyses, and documents supporting and/or underlying the response. If such examinations were not conducted, please explain why not.

A1-67. a. As explained in Mr. Bellar's testimony, the PJM demand response auction provides an indicator as to the value of demand response actions (or participation in KU's curtailable service riders). The auction results clearly demonstrate that current market conditions in PJM place a lower value on demand response options than is currently provided by KU's CSR rates.

b. See Attachment 1 provided in response to Question No. 1-47a.

c. No. The market price in wholesale demand markets will vary from month to month and from year to year. As explained on pages 10-11 of Mr. Bellar's direct testimony, the most recent PJM demand response auction generated a $3.83/kW-month result for 2014-2015, whereas the values in the auction were considerably less in 2012-2013 at $0.50/kW-month and $0.84/kW-month for 2013-2014.

d. See response to c.

e. CSR pricing should generally reflect cost of service principles. More specifically, CSR pricing should generally reflect the avoided cost associated with being able to curtail CSR load in a timely manner.

f. With respect to CSR service, value-of-service corresponds to the avoided cost of being able to curtail CSR load; therefore, value-of-service is equivalent to cost of service. See response to e.

g. KU has an obligation to serve all of its customers in the most cost-effective manner possible. For this reason, KU relies on its cost of service study to aid in designing rates, and does not attempt to design rates based on a customer-specific economic impact analysis of any proposed modifications. Furthermore, the Company does not have the local customer-specific financial data to perform such a study.

KENTUCKY UTILITIES COMPANY

CASE NO. 2012-00221

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated July 31, 2012

Question No. 1-68

Responding Witness: Lonnie E. Bellar

Q1-68. Referring to witness Bellar's direct testimony at 10-11:

a. Please explain in detail why a 10 percent carrying cost is appropriate when evaluating the annualized cost of combustion turbine capacity available to KU.

b. Identify each component of the 10-percent carrying cost that witness Bellar used in his evaluation of the annualized cost of combustion turbine capacity available to KU, provide the formula for calculating such carrying cost, and explain in detail how such carrying cost should be derived .

c. Please identify the carrying cost(s) used by KU in its most recent integrated resource plan to evaluate the cost of alternative resource options, specify the components of such carrying cost, provide the formula used to derive the carrying cost, and explain its derivation in detail.

d. Please identify the carrying cost(s) used by KU in its current analyses of generation resource options, specify the components of such carrying cost, provide the formula used to derive the carrying cost, and explain its derivation in detail.

A1-68. a. See the response to Question No. 60.

b. See the response to Question No. 60.

c. See the response to Question No. 60.

d. LG&E and KU use a single levelized fixed charge rate for each broad category of generation technologies. Levelized fixed charge rates were developed for the following four categories of generation technologies: coal, combined cycle combustion turbine, simple cycle combustion turbine, and other technologies. See attached.

Combined Cycle Combustion Turbine Carrying Cost

```
IN-SERVICE COST     100.00                    COST OF REMOVAL     0.00
BOOK LIFE (YRS)        40                     TAX LIFE (YRS)        20
CONSTRUCTION YEARS (10 MAX)  0              CAPITAL ESC RATE (%)  2.40
ANNUAL EXPEND (%)      100    0    0    0    0    0    0    0    0    0
ELIGIBLE FOR CWIP        96.29       GENERATION PROJECT? (Y OR N)    Y

AFUDC DATA (%)                         RATIO      COST
     EQUITY                            54.33     10.50
     DEBT                              45.67      3.75

FINANCIAL DATA  (%)                    RATIO      COST
     PREFERRED STOCK                    0.00      0.00
     COMMON STOCK                      54.33     10.50
     DEBT                              45.67      3.75
WEIGHTED AVERAGE COST OF CAPITAL                  7.42

TAX RATES (%)
INCOME         38.90          GROSS RECEIPTS      00.00
AD-VALOREM      0.15          CAPITALIZED INT      3.75

INSURANCE RATE (%)       0.106

TAX DEPRECIATION METHOD  -3-       DEC BAL RATE -1.50-
           1 = STRAIGHT LINE
           2 = DECLINING BALANCE
           3 = DECLINING SWITCH TO STRAIGHT LINE
           4 = SUM OF YEARS DIGITS
           5 = SUM OF YEARS DIGITS SWITCH TO STRAIGHT LINE
           6 = ACCRELATED COST RECOVERY SYSTEM
           7 = SINKING FUND
```

IN-SERVICE PERIOD

YR	INVEST	UNRCVD INV BOOK	BOOK DEPR	TAX DEPR TYPE	UNRCVD INV TAX	TAX DEPR	TAX DEFR	ACUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	AD VAL TAX	INS COST	REV REQ	DISC RATE	PV OF REV REQ	ACCUM PV OF REV REQ	PROJ TO DATE FCR
1	100.00	100.00	1.25	2	100.00	3.75	0.97	0.97	5.58	1.67	2.58	0.08	0.05	12.18	1.000	12.18	12.18	12.18
2	0.00	98.75	2.50	2	96.25	7.22	1.84	2.81	5.33	1.60	1.56	0.15	0.11	13.08	0.931	12.18	24.36	12.61
3	0.00	96.25	2.50	2	89.03	6.68	1.62	4.43	5.10	1.53	1.62	0.14	0.11	12.62	0.867	10.94	35.29	12.62
4	0.00	93.75	2.50	2	82.35	6.18	1.43	5.86	4.87	1.46	1.67	0.14	0.11	12.18	0.807	9.83	45.12	12.52

5	0.00	91.25	2.50	2	76.18	5.71	1.25	7.11	4.66	1.40	1.72	0.14	0.11	11.76	0.751	8.84	53.96	12.39
6	0.00	88.75	2.50	2	70.46	5.28	1.08	8.20	4.45	1.34	1.75	0.13	0.11	11.36	0.699	7.95	61.90	12.25
7	0.00	86.25	2.50	2	65.18	4.89	0.93	9.13	4.26	1.28	1.78	0.13	0.11	10.98	0.651	7.15	69.05	12.10
8	0.00	83.75	2.50	2	60.29	4.52	0.79	9.91	4.07	1.22	1.80	0.13	0.11	10.61	0.606	6.43	75.48	11.96
9	0.00	81.25	2.50	1	55.77	4.46	0.76	10.68	3.88	1.17	1.71	0.12	0.11	10.25	0.564	5.78	81.27	11.82
10	0.00	78.75	2.50	1	51.31	4.46	0.76	11.44	3.70	1.11	1.59	0.12	0.11	9.89	0.525	5.19	86.46	11.68
11	0.00	76.25	2.50	1	46.85	4.46	0.76	12.20	3.51	1.05	1.47	0.11	0.11	9.52	0.489	4.66	91.11	11.55
12	0.00	73.75	2.50	1	42.38	4.46	0.76	12.96	3.32	1.00	1.35	0.11	0.11	9.16	0.455	4.17	95.28	11.42
13	0.00	71.25	2.50	1	37.92	4.46	0.76	13.73	3.14	0.94	1.24	0.11	0.11	8.79	0.424	3.73	99.01	11.29
14	0.00	68.75	2.50	1	33.46	4.46	0.76	14.49	2.95	0.89	1.12	0.10	0.11	8.43	0.394	3.32	102.33	11.17
15	0.00	66.25	2.50	1	29.00	4.46	0.76	15.25	2.77	0.83	1.00	0.10	0.11	8.06	0.367	2.96	105.29	11.05
16	0.00	63.75	2.50	1	24.54	4.46	0.76	16.02	2.58	0.77	0.88	0.10	0.11	7.70	0.342	2.63	107.93	10.93
17	0.00	61.25	2.50	1	20.08	4.46	0.76	16.78	2.39	0.72	0.76	0.09	0.11	7.34	0.318	2.33	110.26	10.82
18	0.00	58.75	2.50	1	15.62	4.46	0.76	17.54	2.21	0.66	0.64	0.09	0.11	6.97	0.296	2.07	112.33	10.71
19	0.00	56.25	2.50	1	11.15	4.46	0.76	18.31	2.02	0.61	0.52	0.08	0.11	6.61	0.276	1.82	114.15	10.61
20	0.00	53.75	2.50	1	6.69	4.46	0.76	19.07	1.84	0.55	0.41	0.08	0.11	6.24	0.257	1.60	115.75	10.50
21	0.00	51.25	2.50	1	2.23	2.23	-0.10	18.96	1.70	0.51	1.19	0.08	0.11	5.97	0.239	1.43	117.18	10.41
22	0.00	48.75	2.50	0	0.00	0.00	-0.97	17.99	1.61	0.48	2.00	0.07	0.11	5.80	0.223	1.29	118.47	10.32
23	0.00	46.25	2.50	0	0.00	0.00	-0.97	17.02	1.52	0.46	1.94	0.07	0.11	5.63	0.207	1.17	119.64	10.24
24	0.00	43.75	2.50	0	0.00	0.00	-0.97	16.05	1.44	0.43	1.89	0.07	0.11	5.46	0.193	1.05	120.69	10.16
25	0.00	41.25	2.50	0	0.00	0.00	-0.97	15.07	1.35	0.41	1.83	0.06	0.11	5.28	0.180	0.95	121.64	10.09
26	0.00	38.75	2.50	0	0.00	0.00	-0.97	14.10	1.26	0.38	1.78	0.06	0.11	5.11	0.167	0.85	122.49	10.02
27	0.00	36.25	2.50	0	0.00	0.00	-0.97	13.13	1.18	0.35	1.72	0.05	0.11	4.94	0.156	0.77	123.26	9.95
28	0.00	33.75	2.50	0	0.00	0.00	-0.97	12.16	1.09	0.33	1.67	0.05	0.11	4.77	0.145	0.69	123.95	9.89
29	0.00	31.25	2.50	0	0.00	0.00	-0.97	11.18	1.00	0.30	1.61	0.05	0.11	4.59	0.135	0.62	124.57	9.84
30	0.00	28.75	2.50	0	0.00	0.00	-0.97	10.21	0.91	0.27	1.56	0.04	0.11	4.42	0.126	0.56	125.13	9.78
31	0.00	26.25	2.50	0	0.00	0.00	-0.97	9.24	0.83	0.25	1.50	0.04	0.11	4.25	0.117	0.50	125.62	9.73
32	0.00	23.75	2.50	0	0.00	0.00	-0.97	8.27	0.74	0.22	1.44	0.04	0.11	4.08	0.109	0.44	126.07	9.69
33	0.00	21.25	2.50	0	0.00	0.00	-0.97	7.29	0.65	0.20	1.39	0.03	0.11	3.90	0.101	0.40	126.46	9.64
34	0.00	18.75	2.50	0	0.00	0.00	-0.97	6.32	0.57	0.17	1.33	0.03	0.11	3.73	0.094	0.35	126.81	9.60
35	0.00	16.25	2.50	0	0.00	0.00	-0.97	5.35	0.48	0.14	1.28	0.02	0.11	3.56	0.088	0.31	127.13	9.56
36	0.00	13.75	2.50	0	0.00	0.00	-0.97	4.38	0.39	0.12	1.22	0.02	0.11	3.39	0.082	0.28	127.40	9.52
37	0.00	11.25	2.50	0	0.00	0.00	-0.97	3.40	0.30	0.09	1.17	0.02	0.11	3.21	0.076	0.24	127.65	9.49
38	0.00	8.75	2.50	0	0.00	0.00	-0.97	2.43	0.22	0.07	1.11	0.01	0.11	3.04	0.071	0.22	127.86	9.45
39	0.00	6.25	2.50	0	0.00	0.00	-0.97	1.46	0.13	0.04	1.06	0.01	0.11	2.87	0.066	0.19	128.05	9.42
40	0.00	3.75	2.50	0	0.00	0.00	-0.97	0.49	0.04	0.01	1.00	0.01	0.11	2.70	0.061	0.17	128.22	9.39
41	0.00	1.25	1.25	0	0.00	0.00	-0.49	0.00	0.00	0.00	0.49	0.00	0.05	1.30	0.057	0.07	128.29	9.36
																40 Yr Fcr =		9.40

Simple Cycle Combustion Turbine Carrying Cost

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IN-SERVICE COST    100.00                COST OF REMOVAL     0.00
BOOK LIFE (YRS)        30                TAX LIFE (YRS)        15
CONSTRUCTION YEARS (10 MAX)  0         CAPITAL ESC RATE (%)  2.40
ANNUAL EXPEND (%)     100    0    0    0    0    0    0    0    0    0
ELIGIBLE FOR CWIP       96.29       GENERATION PROJECT? (Y OR N)    Y

AFUDC DATA (%)                         RATIO      COST
     EQUITY                            54.33     10.50
     DEBT                              45.67      3.75

FINANCIAL DATA  (%)                    RATIO      COST
     PREFERRED STOCK                    0.00      0.00
     COMMON STOCK                      54.33     10.50
     DEBT                              45.67      3.75
WEIGHTED AVERAGE COST OF CAPITAL                  7.42

TAX RATES (%)
INCOME          38.90          GROSS RECEIPTS      00.00
AD-VALOREM       0.15          CAPITALIZED INT      3.75

INSURANCE RATE (%)       0.106

TAX DEPRECIATION METHOD  -3-       DEC BAL RATE -1.50-
           1 = STRAIGHT LINE
           2 = DECLINING BALANCE
           3 = DECLINING SWITCH TO STRAIGHT LINE
           4 = SUM OF YEARS DIGITS
           5 = SUM OF YEARS DIGITS SWITCH TO STRAIGHT LINE
           6 = ACCRELATED COST RECOVERY SYSTEM
           7 = SINKING FUND
```

IN-SERVICE PERIOD

YR	INVEST	UNRCVD INV BOOK	BOOK DEPR	TAX DEPR TYPE	UNRCVD INV TAX	TAX DEPR	TAX DEFR	ACUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	AD VAL TAX	INS COST	REV REQ	DISC RATE	PV OF REV REQ	ACCUM PV OF REV REQ	PROJ TO DATE FCR
1	100.00	100.00	1.67	2	100.00	5.00	1.30	1.30	5.54	1.66	2.23	0.08	0.05	12.52	1.000	12.52	12.52	12.52
2	0.00	98.33	3.33	2	95.00	9.50	2.40	3.70	5.21	1.56	0.92	0.15	0.11	13.68	0.931	12.73	25.25	13.08
3	0.00	95.00	3.33	2	85.50	8.55	2.03	5.72	4.90	1.47	1.09	0.14	0.11	13.08	0.867	11.33	36.58	13.08
4	0.00	91.67	3.33	2	76.95	7.70	1.70	7.42	4.62	1.39	1.24	0.14	0.11	12.52	0.807	10.10	46.68	12.95

5	0.00	88.33	3.33	2	69.25	6.93	1.40	8.82	4.35	1.30	1.37	0.13	0.11	11.99	0.751	9.01	55.69	12.78
6	0.00	85.00	3.33	2	62.33	6.23	1.13	9.95	4.09	1.23	1.48	0.13	0.11	11.49	0.699	8.04	63.72	12.61
7	0.00	81.67	3.33	1	56.10	5.90	1.00	10.95	3.84	1.15	1.45	0.12	0.11	11.01	0.651	7.17	70.89	12.42
8	0.00	78.33	3.33	1	50.19	5.90	1.00	11.95	3.60	1.08	1.29	0.12	0.11	10.52	0.606	6.38	77.26	12.24
9	0.00	75.00	3.33	1	44.29	5.90	1.00	12.95	3.35	1.01	1.13	0.11	0.11	10.04	0.564	5.66	82.93	12.06
10	0.00	71.67	3.33	1	38.38	5.90	1.00	13.95	3.10	0.93	0.97	0.11	0.11	9.56	0.525	5.02	87.95	11.88
11	0.00	68.33	3.33	1	32.48	5.90	1.00	14.95	2.86	0.86	0.82	0.10	0.11	9.07	0.489	4.44	92.38	11.71
12	0.00	65.00	3.33	1	26.57	5.90	1.00	15.95	2.61	0.78	0.66	0.10	0.11	8.59	0.455	3.91	96.29	11.54
13	0.00	61.67	3.33	1	20.67	5.90	1.00	16.95	2.36	0.71	0.50	0.09	0.11	8.10	0.424	3.43	99.73	11.37
14	0.00	58.33	3.33	1	14.76	5.90	1.00	17.95	2.11	0.63	0.35	0.09	0.11	7.62	0.394	3.01	102.73	11.21
15	0.00	55.00	3.33	1	8.86	5.90	1.00	18.95	1.87	0.56	0.19	0.08	0.11	7.14	0.367	2.62	105.35	11.05
16	0.00	51.67	3.33	1	2.95	2.95	-0.15	18.80	1.68	0.51	1.22	0.08	0.11	6.78	0.342	2.32	107.67	10.91
17	0.00	48.33	3.33	0	0.00	0.00	-1.30	17.51	1.57	0.47	2.30	0.07	0.11	6.55	0.318	2.08	109.76	10.77
18	0.00	45.00	3.33	0	0.00	0.00	-1.30	16.21	1.45	0.44	2.22	0.07	0.11	6.32	0.296	1.87	111.63	10.64
19	0.00	41.67	3.33	0	0.00	0.00	-1.30	14.91	1.34	0.40	2.15	0.06	0.11	6.09	0.276	1.68	113.31	10.53
20	0.00	38.33	3.33	0	0.00	0.00	-1.30	13.62	1.22	0.37	2.07	0.06	0.11	5.86	0.257	1.50	114.81	10.42
21	0.00	35.00	3.33	0	0.00	0.00	-1.30	12.32	1.10	0.33	2.00	0.05	0.11	5.63	0.239	1.35	116.16	10.32
22	0.00	31.67	3.33	0	0.00	0.00	-1.30	11.02	0.99	0.30	1.93	0.05	0.11	5.40	0.223	1.20	117.36	10.22
23	0.00	28.33	3.33	0	0.00	0.00	-1.30	9.73	0.87	0.26	1.85	0.04	0.11	5.17	0.207	1.07	118.43	10.13
24	0.00	25.00	3.33	0	0.00	0.00	-1.30	8.43	0.76	0.23	1.78	0.04	0.11	4.94	0.193	0.95	119.38	10.05
25	0.00	21.67	3.33	0	0.00	0.00	-1.30	7.13	0.64	0.19	1.70	0.03	0.11	4.71	0.180	0.85	120.23	9.97
26	0.00	18.33	3.33	0	0.00	0.00	-1.30	5.84	0.52	0.16	1.63	0.03	0.11	4.48	0.167	0.75	120.98	9.89
27	0.00	15.00	3.33	0	0.00	0.00	-1.30	4.54	0.41	0.12	1.56	0.02	0.11	4.25	0.156	0.66	121.64	9.82
28	0.00	11.67	3.33	0	0.00	0.00	-1.30	3.24	0.29	0.09	1.48	0.02	0.11	4.02	0.145	0.58	122.22	9.76
29	0.00	8.33	3.33	0	0.00	0.00	-1.30	1.95	0.17	0.05	1.41	0.01	0.11	3.79	0.135	0.51	122.73	9.69
30	0.00	5.00	3.33	0	0.00	0.00	-1.30	0.65	0.06	0.02	1.33	0.01	0.11	3.56	0.126	0.45	123.18	9.63
31	0.00	1.67	1.67	0	0.00	0.00	-0.65	0.00	-0.00	-0.00	0.65	0.00	0.05	1.72	0.117	0.20	123.38	9.56
																30 Yr Fcr =		9.65

Coal Unit Carrying Cost

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IN-SERVICE COST    100.00                     COST OF REMOVAL     0.00
BOOK LIFE (YRS)        40                     TAX LIFE (YRS)        20
CONSTRUCTION YEARS (10 MAX)  0              CAPITAL ESC RATE (%)  2.40
ANNUAL EXPEND (%)     100    0    0    0    0    0    0    0    0    0
ELIGIBLE FOR CWIP       96.29       GENERATION PROJECT? (Y OR N)    Y

AFUDC DATA (%)                          RATIO      COST
     EQUITY                             54.33     10.50
     DEBT                               45.67      3.75

FINANCIAL DATA  (%)                     RATIO      COST
     PREFERRED STOCK                     0.00      0.00
     COMMON STOCK                       54.33     10.50
     DEBT                               45.67      3.75
WEIGHTED AVERAGE COST OF CAPITAL                   7.42

TAX RATES (%)
INCOME         38.90         GROSS RECEIPTS       00.00
AD-VALOREM      0.15         CAPITALIZED INT       3.75

INSURANCE RATE (%)       0.106

TAX DEPRECIATION METHOD  -3-       DEC BAL RATE -1.50-
           1 = STRAIGHT LINE
           2 = DECLINING BALANCE
           3 = DECLINING SWITCH TO STRAIGHT LINE
           4 = SUM OF YEARS DIGITS
           5 = SUM OF YEARS DIGITS SWITCH TO STRAIGHT LINE
           6 = ACCRELATED COST RECOVERY SYSTEM
           7 = SINKING FUND
```

IN-SERVICE PERIOD

YR	INVEST	UNRCVD INV BOOK	BOOK DEPR	TAX DEPR TYPE	UNRCVD INV TAX	TAX DEPR	TAX DEFR	ACUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	AD VAL TAX	INS COST	REV REQ	DISC RATE	PV OF REV REQ	ACCUM PV OF REV REQ	PROJ TO DATE FCR
1	100.00	100.00	1.25	2	100.00	3.75	0.97	0.97	5.58	1.67	2.58	0.08	0.05	12.18	1.000	12.18	12.18	12.18
2	0.00	98.75	2.50	2	96.25	7.22	1.84	2.81	5.33	1.60	1.56	0.15	0.11	13.08	0.931	12.18	24.36	12.61
3	0.00	96.25	2.50	2	89.03	6.68	1.62	4.43	5.10	1.53	1.62	0.14	0.11	12.62	0.867	10.94	35.29	12.62
4	0.00	93.75	2.50	2	82.35	6.18	1.43	5.86	4.87	1.46	1.67	0.14	0.11	12.18	0.807	9.83	45.12	12.52

5	0.00	91.25	2.50	2	76.18	5.71	1.25	7.11	4.66	1.40	1.72	0.14	0.11	11.76	0.751	8.84	53.96	12.39
6	0.00	88.75	2.50	2	70.46	5.28	1.08	8.20	4.45	1.34	1.75	0.13	0.11	11.36	0.699	7.95	61.90	12.25
7	0.00	86.25	2.50	2	65.18	4.89	0.93	9.13	4.26	1.28	1.78	0.13	0.11	10.98	0.651	7.15	69.05	12.10
8	0.00	83.75	2.50	2	60.29	4.52	0.79	9.91	4.07	1.22	1.80	0.13	0.11	10.61	0.606	6.43	75.48	11.96
9	0.00	81.25	2.50	1	55.77	4.46	0.76	10.68	3.88	1.17	1.71	0.12	0.11	10.25	0.564	5.78	81.27	11.82
10	0.00	78.75	2.50	1	51.31	4.46	0.76	11.44	3.70	1.11	1.59	0.12	0.11	9.89	0.525	5.19	86.46	11.68
11	0.00	76.25	2.50	1	46.85	4.46	0.76	12.20	3.51	1.05	1.47	0.11	0.11	9.52	0.489	4.66	91.11	11.55
12	0.00	73.75	2.50	1	42.38	4.46	0.76	12.96	3.32	1.00	1.35	0.11	0.11	9.16	0.455	4.17	95.28	11.42
13	0.00	71.25	2.50	1	37.92	4.46	0.76	13.73	3.14	0.94	1.24	0.11	0.11	8.79	0.424	3.73	99.01	11.29
14	0.00	68.75	2.50	1	33.46	4.46	0.76	14.49	2.95	0.89	1.12	0.10	0.11	8.43	0.394	3.32	102.33	11.17
15	0.00	66.25	2.50	1	29.00	4.46	0.76	15.25	2.77	0.83	1.00	0.10	0.11	8.06	0.367	2.96	105.29	11.05
16	0.00	63.75	2.50	1	24.54	4.46	0.76	16.02	2.58	0.77	0.88	0.10	0.11	7.70	0.342	2.63	107.93	10.93
17	0.00	61.25	2.50	1	20.08	4.46	0.76	16.78	2.39	0.72	0.76	0.09	0.11	7.34	0.318	2.33	110.26	10.82
18	0.00	58.75	2.50	1	15.62	4.46	0.76	17.54	2.21	0.66	0.64	0.09	0.11	6.97	0.296	2.07	112.33	10.71
19	0.00	56.25	2.50	1	11.15	4.46	0.76	18.31	2.02	0.61	0.52	0.08	0.11	6.61	0.276	1.82	114.15	10.61
20	0.00	53.75	2.50	1	6.69	4.46	0.76	19.07	1.84	0.55	0.41	0.08	0.11	6.24	0.257	1.60	115.75	10.50
21	0.00	51.25	2.50	1	2.23	2.23	-0.10	18.96	1.70	0.51	1.19	0.08	0.11	5.97	0.239	1.43	117.18	10.41
22	0.00	48.75	2.50	0	0.00	0.00	-0.97	17.99	1.61	0.48	2.00	0.07	0.11	5.80	0.223	1.29	118.47	10.32
23	0.00	46.25	2.50	0	0.00	0.00	-0.97	17.02	1.52	0.46	1.94	0.07	0.11	5.63	0.207	1.17	119.64	10.24
24	0.00	43.75	2.50	0	0.00	0.00	-0.97	16.05	1.44	0.43	1.89	0.07	0.11	5.46	0.193	1.05	120.69	10.16
25	0.00	41.25	2.50	0	0.00	0.00	-0.97	15.07	1.35	0.41	1.83	0.06	0.11	5.28	0.180	0.95	121.64	10.09
26	0.00	38.75	2.50	0	0.00	0.00	-0.97	14.10	1.26	0.38	1.78	0.06	0.11	5.11	0.167	0.85	122.49	10.02
27	0.00	36.25	2.50	0	0.00	0.00	-0.97	13.13	1.18	0.35	1.72	0.05	0.11	4.94	0.156	0.77	123.26	9.95
28	0.00	33.75	2.50	0	0.00	0.00	-0.97	12.16	1.09	0.33	1.67	0.05	0.11	4.77	0.145	0.69	123.95	9.89
29	0.00	31.25	2.50	0	0.00	0.00	-0.97	11.18	1.00	0.30	1.61	0.05	0.11	4.59	0.135	0.62	124.57	9.84
30	0.00	28.75	2.50	0	0.00	0.00	-0.97	10.21	0.91	0.27	1.56	0.04	0.11	4.42	0.126	0.56	125.13	9.78
31	0.00	26.25	2.50	0	0.00	0.00	-0.97	9.24	0.83	0.25	1.50	0.04	0.11	4.25	0.117	0.50	125.62	9.73
32	0.00	23.75	2.50	0	0.00	0.00	-0.97	8.27	0.74	0.22	1.44	0.04	0.11	4.08	0.109	0.44	126.07	9.69
33	0.00	21.25	2.50	0	0.00	0.00	-0.97	7.29	0.65	0.20	1.39	0.03	0.11	3.90	0.101	0.40	126.46	9.64
34	0.00	18.75	2.50	0	0.00	0.00	-0.97	6.32	0.57	0.17	1.33	0.03	0.11	3.73	0.094	0.35	126.81	9.60
35	0.00	16.25	2.50	0	0.00	0.00	-0.97	5.35	0.48	0.14	1.28	0.02	0.11	3.56	0.088	0.31	127.13	9.56
36	0.00	13.75	2.50	0	0.00	0.00	-0.97	4.38	0.39	0.12	1.22	0.02	0.11	3.39	0.082	0.28	127.40	9.52
37	0.00	11.25	2.50	0	0.00	0.00	-0.97	3.40	0.30	0.09	1.17	0.02	0.11	3.21	0.076	0.24	127.65	9.49
38	0.00	8.75	2.50	0	0.00	0.00	-0.97	2.43	0.22	0.07	1.11	0.01	0.11	3.04	0.071	0.22	127.86	9.45
39	0.00	6.25	2.50	0	0.00	0.00	-0.97	1.46	0.13	0.04	1.06	0.01	0.11	2.87	0.066	0.19	128.05	9.42
40	0.00	3.75	2.50	0	0.00	0.00	-0.97	0.49	0.04	0.01	1.00	0.01	0.11	2.70	0.061	0.17	128.22	9.39
41	0.00	1.25	1.25	0	0.00	0.00	-0.49	0.00	0.00	0.00	0.49	0.00	0.05	1.30	0.057	0.07	128.29	9.36
																40 Yr	Fcr =	9.40

'Other' Technology Carrying Cost

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IN-SERVICE COST    100.00                    COST OF REMOVAL     0.00
BOOK LIFE (YRS)       30                     TAX LIFE (YRS)        15
CONSTRUCTION YEARS (10 MAX)  0             CAPITAL ESC RATE (%)  2.40
ANNUAL EXPEND (%)     100    0    0    0    0    0    0    0    0    0
ELIGIBLE FOR CWIP        96.29       GENERATION PROJECT? (Y OR N)    Y

AFUDC DATA (%)                        RATIO      COST
     EQUITY                           54.33     10.50
     DEBT                             45.67      3.75

FINANCIAL DATA  (%)                   RATIO      COST
     PREFERRED STOCK                   0.00      0.00
     COMMON STOCK                     54.33     10.50
     DEBT                             45.67      3.75
WEIGHTED AVERAGE COST OF CAPITAL                 7.42

TAX RATES (%)
INCOME         38.90         GROSS RECEIPTS     00.00
AD-VALOREM      0.15         CAPITALIZED INT     3.75

INSURANCE RATE (%)       0.0247

TAX DEPRECIATION METHOD  -3-       DEC BAL RATE -1.50-
           1 = STRAIGHT LINE
           2 = DECLINING BALANCE
           3 = DECLINING SWITCH TO STRAIGHT LINE
           4 = SUM OF YEARS DIGITS
           5 = SUM OF YEARS DIGITS SWITCH TO STRAIGHT LINE
           6 = ACCRELATED COST RECOVERY SYSTEM
           7 = SINKING FUND
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IN-SERVICE PERIOD

YR	INVEST	UNRCVD INV BOOK	BOOK DEPR	TAX DEPR TYPE	UNRCVD INV TAX	TAX DEPR	TAX DEFR	ACUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	AD VAL TAX	INS COST	REV REQ	DISC RATE	PV OF REV REQ	ACCUM PV OF REV REQ	PROJ TO DATE FCR
1	100.00	100.00	1.67	2	100.00	5.00	1.30	1.30	5.54	1.66	2.23	0.08	0.01	12.48	1.000	12.48	12.48	12.48
2	0.00	98.33	3.33	2	95.00	9.50	2.40	3.70	5.21	1.56	0.92	0.15	0.02	13.59	0.931	12.66	25.13	13.01
3	0.00	95.00	3.33	2	85.50	8.55	2.03	5.72	4.90	1.47	1.09	0.14	0.02	13.00	0.867	11.26	36.39	13.01
4	0.00	91.67	3.33	2	76.95	7.70	1.70	7.42	4.62	1.39	1.24	0.14	0.02	12.44	0.807	10.03	46.43	12.88

5	0.00	88.33	3.33	2	69.25	6.93	1.40	8.82	4.35	1.30	1.37	0.13	0.02	11.91	0.751	8.94	55.37	12.71
6	0.00	85.00	3.33	2	62.33	6.23	1.13	9.95	4.09	1.23	1.48	0.13	0.02	11.41	0.699	7.98	63.35	12.53
7	0.00	81.67	3.33	1	56.10	5.90	1.00	10.95	3.84	1.15	1.45	0.12	0.02	10.93	0.651	7.11	70.46	12.35
8	0.00	78.33	3.33	1	50.19	5.90	1.00	11.95	3.60	1.08	1.29	0.12	0.02	10.44	0.606	6.33	76.79	12.17
9	0.00	75.00	3.33	1	44.29	5.90	1.00	12.95	3.35	1.01	1.13	0.11	0.02	9.96	0.564	5.62	82.41	11.99
10	0.00	71.67	3.33	1	38.38	5.90	1.00	13.95	3.10	0.93	0.97	0.11	0.02	9.47	0.525	4.98	87.39	11.81
11	0.00	68.33	3.33	1	32.48	5.90	1.00	14.95	2.86	0.86	0.82	0.10	0.02	8.99	0.489	4.40	91.78	11.63
12	0.00	65.00	3.33	1	26.57	5.90	1.00	15.95	2.61	0.78	0.66	0.10	0.02	8.51	0.455	3.87	95.65	11.46
13	0.00	61.67	3.33	1	20.67	5.90	1.00	16.95	2.36	0.71	0.50	0.09	0.02	8.02	0.424	3.40	99.05	11.30
14	0.00	58.33	3.33	1	14.76	5.90	1.00	17.95	2.11	0.63	0.35	0.09	0.02	7.54	0.394	2.97	102.03	11.13
15	0.00	55.00	3.33	1	8.86	5.90	1.00	18.95	1.87	0.56	0.19	0.08	0.02	7.06	0.367	2.59	104.62	10.98
16	0.00	51.67	3.33	1	2.95	2.95	-0.15	18.80	1.68	0.51	1.22	0.08	0.02	6.70	0.342	2.29	106.91	10.83
17	0.00	48.33	3.33	0	0.00	0.00	-1.30	17.51	1.57	0.47	2.30	0.07	0.02	6.47	0.318	2.06	108.97	10.69
18	0.00	45.00	3.33	0	0.00	0.00	-1.30	16.21	1.45	0.44	2.22	0.07	0.02	6.24	0.296	1.85	110.82	10.57
19	0.00	41.67	3.33	0	0.00	0.00	-1.30	14.91	1.34	0.40	2.15	0.06	0.02	6.01	0.276	1.66	112.47	10.45
20	0.00	38.33	3.33	0	0.00	0.00	-1.30	13.62	1.22	0.37	2.07	0.06	0.02	5.78	0.257	1.48	113.96	10.34
21	0.00	35.00	3.33	0	0.00	0.00	-1.30	12.32	1.10	0.33	2.00	0.05	0.02	5.55	0.239	1.33	115.28	10.24
22	0.00	31.67	3.33	0	0.00	0.00	-1.30	11.02	0.99	0.30	1.93	0.05	0.02	5.32	0.223	1.18	116.47	10.14
23	0.00	28.33	3.33	0	0.00	0.00	-1.30	9.73	0.87	0.26	1.85	0.04	0.02	5.09	0.207	1.05	117.52	10.05
24	0.00	25.00	3.33	0	0.00	0.00	-1.30	8.43	0.76	0.23	1.78	0.04	0.02	4.86	0.193	0.94	118.46	9.97
25	0.00	21.67	3.33	0	0.00	0.00	-1.30	7.13	0.64	0.19	1.70	0.03	0.02	4.63	0.180	0.83	119.29	9.89
26	0.00	18.33	3.33	0	0.00	0.00	-1.30	5.84	0.52	0.16	1.63	0.03	0.02	4.40	0.167	0.74	120.03	9.82
27	0.00	15.00	3.33	0	0.00	0.00	-1.30	4.54	0.41	0.12	1.56	0.02	0.02	4.17	0.156	0.65	120.67	9.74
28	0.00	11.67	3.33	0	0.00	0.00	-1.30	3.24	0.29	0.09	1.48	0.02	0.02	3.94	0.145	0.57	121.24	9.68
29	0.00	8.33	3.33	0	0.00	0.00	-1.30	1.95	0.17	0.05	1.41	0.01	0.02	3.71	0.135	0.50	121.74	9.61
30	0.00	5.00	3.33	0	0.00	0.00	-1.30	0.65	0.06	0.02	1.33	0.01	0.02	3.48	0.126	0.44	122.18	9.55
31	0.00	1.67	1.67	0	0.00	0.00	-0.65	0.00	-0.00	-0.00	0.65	0.00	0.01	1.68	0.117	0.20	122.38	9.48
																30 Yr Fcr =		9.57