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MAR 1 2013

PUBLIC SERVICE COMMISSION

Kentucky Utilities Company State Regulation and Rates 220 West Main Street PO Box 32010 Louisville, Kentucky 40232 www.lge-ku.com

Robert M. Conroy Director - Rates T 502-627-3324 F 502-627-3213 robert.conroy@lge-ku.com

a PPL company

Mr. Jeff DeRouen Executive Director Kentucky Public Service Commission 211 Sower Boulevard Frankfort, KY 40602

March 1, 2013

RE: AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF KENTUCKY UTILITIES COMPANY FROM NOVEMBER 1, 2010 THROUGH OCTOBER 31, 2012 - CASE NO. 2012-00552

Dear Mr. DeRouen:

Please find enclosed and accept for filing the original and eight (8) copies of the Direct Testimony of Charles R. Schram and Mike Dotson and the Response of Kentucky Utilities Company to the First Request for Information in Appendix B of the Commission's Order dated February 13, 2013, in the above-referenced matter.

Also enclosed are an original and ten (10) copies of a Petition for Confidential Protection regarding certain information provided in response to Question Nos. 6, 9, 22 and 25.

Should you have any questions concerning the enclosed, please contact me at your convenience.

Sincerely,

Robert M. Conroy

Enclosures

MAR 1 2013
PUBLIC SERVICE

COMMISSION

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION OF THE)
APPLICATION OF THE FUEL)
ADJUSTMENT CLAUSE OF KENTUCKY) CASE NO.
UTILITIES COMPANY FROM) 2012-00552
NOVEMBER 1, 2010 THROUGH OCTOBER)
31, 2012)

PETITION OF KENTUCKY UTILITIES COMPANY FOR CONFIDENTIAL PROTECTION

Kentucky Utilities Company ("KU") respectfully petitions the Commission, pursuant to 807 KAR 5:001, Section 13, to classify as confidential and protect from public disclosure certain information provided by KU in response to Question Nos. 6, 9, 22, and 25 of the Commission's data requests, as contained in Appendix B of the Commission's Order dated February 13, 2013. The information for which KU requests confidential treatment ("Confidential Information") pertains to forecasted sales revenues (No. 6), planned maintenance schedules (No. 9), a copy of three settlement agreements with three of KU's coal suppliers (for Question No. 22(a)), and bid analysis information (No. 25). In support of this Motion, KU notes that the Commission has treated this information as confidential in KU's recent six-month and two-year fuel adjustment clause review proceedings.

In further support of this Motion, KU states as follows:

1. Under the Kentucky Open Records Act, the Commission is entitled to withhold from public disclosure information confidentially disclosed to it to the extent that open disclosure would permit an unfair commercial advantage to competitors of the entity disclosing

the information to the Commission. *See* KRS 61.878(1)(c). Public disclosure of the information identified herein would, in fact, prompt such a result for the reasons set forth below.

- 2. Public disclosure of projected sales revenues, which are driven by and based on projected power prices, would afford KU's competitors a distinct competitive advantage in bidding for and securing new bulk power loads, as competitors could use KU's projected prices to outbid KU for these loads. Thus, public disclosure of the information requested in Question No. 6 would afford an undue preference to KU's wholesale power purchasers and sellers, as the latter would enjoy an obvious advantage in any contractual negotiation to the extent they knew the Company's forward price projections. As noted above, the Commission has treated such information as confidential in the past.
- 3. Similarly, public disclosure of information regarding KU's plant maintenance schedules would lay bare critical "down time" information, an essential factor in determining KU's generating costs and need for power and energy during those periods. Thus, disclosing the information requested in Question No. 9 would necessarily impair KU's ability to negotiate with prospective contractors and vendors -- now equipped to manipulate the price of power bid to KU to maximize revenues -- and would likewise arm KU's competitors with information with which they could erode KU's competitive position in the wholesale power market. As noted above, the Commission has treated such information as confidential in the past.
- 4. Disclosure of the Settlement Agreements could damage KU's competitive position and business interests. The Settlement Agreements consider and analyze the costs KU's coal suppliers incur to comply with the MINER Act, which in turn affects the coal price increases KU is willing to pay its coal suppliers for their claimed compliance costs. If the

Commission grants public access to the information requested in Question No. 22(a), KU's current and potential coal suppliers could manipulate their bids to the detriment of KU and its ratepayers by tailoring bids to correspond to and comport with KU's MINER compliance cost evaluation criteria and process.

- 5. Disclosure of the factors underlying KU's bid analysis/selection process would likewise damage KU's competitive position and business interests. This information reveals the business model the Company uses -- the procedure it follows and the factors/inputs it considers in evaluating bids for coal supply. If the Commission grants public access to the information requested in Question No. 25, potential bidders could manipulate the bid solicitation process to the detriment of KU and its ratepayers by tailoring bids to correspond to and comport with KU's bidding criteria and process. As noted above, the Commission has treated such information as confidential in the past.
- 6. The information for which KU is seeking confidential treatment is not known outside of KU, is not disseminated within KU except to those employees with a legitimate business need to know and act upon the information, and is generally recognized as confidential and proprietary information in the energy industry.
- 7. KU does not object to limited disclosure of the confidential information described herein, pursuant to an acceptable protective agreement, to intervenors with legitimate interests in reviewing the same for the purpose of participating in this case.
- 8. In accordance with the provisions of 807 KAR 5:001, Section 13, KU is filing with the Commission one copy of the Confidential Information highlighted and ten (10) copies without the Confidential Information.

WHEREFORE, Kentucky Utilities Company respectfully requests that the Commission grant confidential protection to the information designated as confidential for a period of five years from the date of filing the same.

Dated: March 1, 2013

Respectfully submitted,

Allyson K. Sturgeon

Senior Corporate Attorney

LG&E and KU Services Company

220 West Main Street

Louisville, Kentucky 40202 Telephone: (502) 627-2088

Counsel for Kentucky Utilities Company

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION OF THE APPLICATION OF)	
THE FUEL ADJUSTMENT CLAUSE OF)	
KENTUCKY UTILITIES COMPANY FROM)	CASE NO.
NOVEMBER 1, 2010 THROUGH OCTOBER 31,)	2012-00552
2012)	

DIRECT TESTIMONY OF CHARLES R. SCHRAM DIRECTOR – ENERGY PLANNING, ANALYSIS & FORECASTING LG&E AND KU SERVICES COMPANY

Filed: March 1, 2013

- Q. Please state your name and business address.
- 2 A. My name is Charles R. Schram. My position is Director Energy Planning,
- Analysis, and Forecasting for LG&E and KU Services Company, which provides
- services to Louisville Gas and Electric Company ("LG&E") and Kentucky
- 5 Utilities Company ("KU" or "the Company") (collectively "the Companies").
- 6 My business address is 220 West Main Street, Louisville, Kentucky 40202. A
- 7 complete statement of my education and work experience is attached to this
- 8 testimony as Appendix A.

1

- 9 Q. What is the purpose of your testimony?
- 10 A. I am submitting this testimony in accordance with the Order entered in this
- proceeding by the Commission on February 13, 2013 ("Order"), directing KU to
- file written direct testimony to address changes in the wholesale electric power
- market that significantly affected, or will significantly affect, KU's electric power
- procurement practices.
- 15 Q. What changes have occurred in the wholesale electric power market during
- the period November 1, 2010 through October 31, 2012 that have
- significantly affected KU's electric power procurement practices?
- 18 A. KU's electric power procurement practices were not significantly affected by any
- changes in the wholesale electric power market during this period.
- 20 Q. How have prices developed in the wholesale power market during the period
- November 1, 2010 through October 31, 2012 and how did that affect KU's
- 22 purchases of economy power?

The average electric power price during the period November 1, 2010 through October 31, 2012 was \$39.72/MWh, compared to \$42.52/MWh during the previous tow-year period (November 1, 2008 through October 31, 2010). These lower prices were driven largely by lower natural gas prices, which averaged \$3.42/MMBtu during the period November 1, 2010 through October 31, 2012, compared to \$4.32/MMBtu during the previous two-year period. Lower market prices for electricity would potentially result in a greater volume of hourly economy electricity purchases. However, the Companies benefited from the addition of low cost generation from Trimble County Unit 2 beginning in January 2011. As a result, despite somewhat lower market prices for electricity, hourly economy purchase volumes were reduced by approximately 30% during the period November 1, 2010 through October 31, 2012, compared to the previous two-year period.

Low natural gas prices and a low economic growth rate continue to result in relatively weak wholesale power prices. KU continues to look for opportunities to purchase hourly power from the wholesale market when the cost is lower than its own resources and when import of this power is supported by adequate transmission availability and other operational parameters.

Q. What changes does KU expect to occur in the wholesale power market within the next two years that may significantly affect KU's electric power procurement practices?

1.5

A.

¹ Based on average monthly around-the-clock prices for PJM West Hub.

² Based on average monthly prices for Henry Hub.

KU does not expect changes in the wholesale power market in the next two years which would significantly affect KU's power procurement practices. Natural gas continues to set marginal electricity prices in the region. On-shore shale gas supplies are expected to continue to be a growing part of the U.S. gas supply. Consistent with my testimony in the prior 2-year FAC review, most forecasters continue to believe that gas prices will avoid sustained periods of volatility given the demonstrated responsiveness of new shale gas supplies.

Regardless of the development of wholesale markets, electric transmission constraints and congestion may at times limit the Company's ability to import power from the wholesale market to serve native load, highlighting the continuing importance of the Company's ability to serve its customers with its own supply side resources to ensure security of supply.

The Company is currently evaluating the results of its recent Request for Proposals ("RFP") for capacity and energy. This process enables the Company to thoroughly evaluate the availability and cost of shorter and longer-term market resources to meet customers' energy needs. The RFP enables the Company to thoroughly review market opportunities as part of ensuring effective strategies for producing and securing energy for native load customers.

Q. Does this conclude your testimony?

20 A. Yes.

A.

COMMONWEALTH OF KENTUCKY)	88
)	SS
COUNTY OF JEFFERSON)	

The undersigned, **Charles R. Schram**, being duly sworn, deposes and says that he is Director – Energy Planning, Analysis and Forecasting for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

Charles R. Schram

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of 4th May 2013.

Stan (SEAL

Chonla RAchen

My Commission Expires:

Appendix A

Charles R. Schram

Director – Energy Planning, Analysis & Forecasting LG&E and KU Services Company 220 West Main Street Louisville, Kentucky 40202 (502) 627-3250

Professional Experience

LG&E and KU

Director, Energy Planning, Analysis & Forecasting	May 2008 – Present
Manager, Transmission Protection & Substations	2006 - 2008
Manager, Business Development	2005 - 2006
Manager, Strategic Planning	2001 - 2005
Manager, Distribution System Planning & Eng.	2000 - 2001
Manager, Electric Metering	1997 – 2000
Information Technology Analyst	1995 – 1997

U.S. Department of Defense - Naval Ordnance Station

Manager, Software Integration	1993 - 1995
Electronics Engineer	1984 – 1993

Education

Master of Business Administration
University of Louisville, 1995
Bachelor of Science – Electrical Engineering
University of Louisville, 1984

E.ON Academy General Management Program: 2002-2003

Center for Creative Leadership, Leadership Development Program: 1998

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION OF THE APPLICATION)	
OF THE FUEL ADJUSTMENT CLAUSE OF)	
KENTUCKY UTILITIES COMPANY FROM)	CASE NO. 2012-00552
NOVEMBER 1, 2010 THROUGH OCTOBER)	
31, 2012)	

DIRECT TESTIMONY OF
MIKE DOTSON
MANAGER – LG&E / KU FUELS
LG&E AND KU SERVICES COMPANY

Filed: March 1, 2013

- Q. Please state your name, position and business address.
- 2 A. My name is Mike Dotson. I am the Manager of LG&E/KU Fuels for LG&E and KU
- 3 Services Company, which provides services to LG&E and KU Energy, LLC. My
- business address is 220 West Main Street, Louisville, Kentucky 40202. A statement
- of my education and work experience is attached to this testimony as Appendix A.
- 6 Q. What is the purpose of your testimony?

1

- 7 A. I am submitting this testimony in response to the Order entered in this proceeding by
- 8 the Commission on February 13, 2013 ("Order"), directing KU to file written direct
- 9 testimony on a number of issues relating to fuel procurement during the two-year
- period ended October 31, 2012 ("Review Period").
- 11 Q. Please comment generally on the reasonableness of KU's fuel procurement
- 12 practices during the Review Period.
- 13 A. KU's coal procurement practices are sufficiently flexible to allow the Company to
- respond effectively to changes in market conditions. Although KU typically issues
- formal, sealed-bid solicitations to meet its coal consumption and inventory needs,
- under its written fuel procurement policy, it may solicit offers through more informal
- means, or may respond to unsolicited offers to the extent prices and terms and
- 18 conditions of such offers are competitive with existing market conditions. These
- 19 practices, by which KU is able to make optimal use of the market, are memorialized
- in KU's written fuel procurement policies and procedures. As noted in response to
- 21 the Commission's Order, Item No. 31, the fuel procurement policies and procedures
- were last changed effective January 1, 2011 and were provided to the Commission in
- response to Question No. 15 in Case No. 2011-00247.

1		During the 2-Year Review Period, KU conducted five (5) written coal supply
2		solicitations and two (2) oral coal supply solicitations in the competitive marketplace.
3		A description of each solicitation and associated bid tabulation sheet for the six-
4		month period ended October 31, 2012, is contained in the response to the
5		Commission's Order, Item No. 25(a) and (b) and Commission's Order, Item No. 26
6		(a) and (b). In addition, each vendor from whom KU purchased coal during the six-
7		month period ended October 31, 2012, and the quantities and nature of each purchase
8		(including whether such purchase was a spot or contract purchase), are identified in
9		response to the commission's Order, Item No. 27.
10	Q.	Did KU comply with these fuel procurement policies during the Review Period?
11	A.	Yes.

Please describe the coal suppliers' adherence to contract delivery schedules 12 Q. during the Review Period. 13

- 14 A. With the slowdown in the U. S and global economy it has been a difficult year for the 15 coal market: weak demand, highly competitive natural gas prices and record 16 consumer stockpiles resulting from mild weather have forced many producers to cut 17 supply. With the slowdown in the market and export demand, coal suppliers have 18 been pushing for delivery under their current contracts.
- Do you wish to comment on any other changes that occurred during the Review 19 Q. 20 Period?
- 21 Yes. As noted in prior two (2) year review, since the enactment by Congress of new A. 22 mining and safety legislation and the resulting U. S. Department of Labor, Mine Safety and Health Administration ("MSHA") amendment of existing underground 23

mine safety and health regulations ("MINER Act"), there has been a continuing shift in the regulatory and enforcement environment affecting mine output. There have been a number of new mine safety rules and regulations and an increase in enforcement activity and policies. These have resulted in additional costs to mine and supply coal, loss in mine output, delays in obtaining approvals of mining plans and delays in permitting. As noted in our response to the Commission's Order, Item No. 22, a number of KU Contract suppliers are seeking to recover their cost increases under the New Impositions Section in KU's contracts.

In addition, the mining industry is having difficulty with and experiencing delays in obtaining the necessary environmental permits for their mining operations. This is resulting in mines having to cut production or stop mining in areas altogether while they wait on permits.

- Q. What were KU's efforts to ensure the coal suppliers' adherence to contract delivery schedules during the Review Period?
- 15 A. A list of all of KU's long-term fuel contracts is contained in the response to the

 16 Commission's Order, Item No. 15 (a) (k).

KU regularly communicates with its vendors to identify any potential problems in meeting agreed-upon delivery schedules. KU works with its suppliers on an ongoing basis to accommodate genuine production/delivery problems and reach mutually agreeable resolutions. This includes mine visits by KU representatives, working with suppliers on allowing deliveries from alternate sources or moving from rail to barge loading to truck to barge loading.

KU continues to work with its suppliers on deliveries and make-up of force majeure events. This has proven to be an effective strategy over time that results in reasonably priced coal being delivered to our generation stations. In one case, however, KU is in litigation with Smoky Mountain Coal/Resources Sales as related to non-deliveries of coal during 2008 and 2009, as noted in the response to the Commission Order, Item No. 24.

A.

Q. Please describe KU's efforts to maintain the adequacy of its coal supplies in light of any coal supplier's inability or unwillingness to make contract coal deliveries.

KU works with its suppliers on an ongoing basis to ensure deliveries of contracted amounts of coal. KU worked with its suppliers on allowing deliveries from alternate sources, and switching modes of transportation when available. KU works to diversify its source of supply obtaining high sulfur coal from Western Kentucky, Indiana, Illinois, Ohio and West Virginia.

As previously noted with the slowdown in the U. S. and global economy we have seen a number of producers cutting back production and closing mines. The Central Appalachian Region experienced the majority of the mine closures. The region is experiencing thinning coal seams and costly permitting delays which result in rising production cost. As a result, the Central Appalachian region is losing more production and market share as buyers switch to lower cost Illinois Basin coal, especially with less reliance on lower-sulfur coal over time.

The Illinois Basin coal demand will continue to grow over the next several years. Its relatively inexpensive and abundant reserves, favorable location and the

continued construction of scrubbers in the East will increase the demand for this kind of coal.

Q.

A.

The majority of the coal KU uses is supplied from the Illinois Basin. KU has seen an increase in supply from the region, new mines opening in the region.

These efforts, coupled with ongoing procurement pursuant to the Company's policies, produced adequate coal supplies through the end of the Review Period.

Were there any changes in coal market conditions that occurred during the Review Period, or that KU expects to occur within the next 2 years that have significantly affected or will significantly affect the Company's coal procurement practices?

No. Although the coal market continually changes, there were no material changes in market conditions that significantly affected, or that KU believes could significantly affect in the future, the Company's fuel procurement practices.

As previously stated with the slowdown in the U. S. and global economy, we saw inventory stockpiles increase and many producers cut supply. The following quotes in the U.S. Energy Information Administration's ("EIA") *Short –Term Energy Outlook*, released January 8, 2013 confirm this observation:

<u>U. S. Coal Consumption</u> "EIA estimates coal consumption in the electric power sector totaled 829 million short tons in 2012, the lowest amount since 1992. Lower natural gas prices paid by electric generators led to a significant increase in the share of natural gas-fired generation. Higher natural gas prices, coupled with slightly higher electricity demand, will lead to an increase in coal-fired generation over the forecast period."

U. S. Coal supply "EIA estimates coal production declined by 6.3% in 2012 along with a drop in domestic consumption. Coal production is expected to decline by a further 3.6% in 2013 as primary and secondary inventory draws combined with a small increase in coal imports meet a small consumption increase in 2013. Although EIA forecasts that coal consumption will remain flat and that inventories will stabilize in 2014, production is forecast to grow by 3% as coal exports rise."

A.

<u>U. S. Coal Trade</u> "EIA estimates coal exports totaled a record 124 million short tons in 2012. Continuing economic weakness in Europe and lower international coal prices are expected to contribute to lower coal exports in 2013."

<u>U. S. Coal Prices</u> "Delivered coal prices to the electric power industry increased steadily over the 10 year period ending 2011, when the delivered coal price averaged \$2.39 per MMBtu (a 6% increase from 2010). EIA expects that changing market conditions, including weaker domestic demand for coal and higher coal inventories, will slow increases in coal prices and contribute to the shut-in of higher cost production.

Although these changes can affect KU's bargaining power with suppliers, they did not alter, nor are they expected to alter, the Company's coal procurement practices. KU's fuel procurement practices allow the Company to respond effectively to changes in market conditions.

Q. Were KU's costs of fuel for the Review Period reasonable?

Yes. KU's costs for comparable coals have remained at, about the average and comparable to other similarly situated utilities as identified in response to the Commission's Order, Item No. 18. KU continues to follow the same sound coal

- 1 procurement practices previously reviewed by the Commission. Given the
- 2 information available, in my opinion, the Company's fuel costs during the Review
- 3 Period were reasonable.
- 4 Q. Were KU's fuel purchases and practices during the Review Period reasonable?
- 5 A. Yes. In my opinion, KU's fuel purchases and practices were reasonable during the
- 6 Review Period.
- 7 Q. Does this conclude your testimony?
- 8 A. Yes.

COMMONWEALTH OF KENTUCKY)	
)	SS
COUNTY OF JEFFERSON)	

The undersigned, **Mike Dotson**, being duly sworn, deposes and says that he is Manager – LG&E and KU Fuels for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

Mike Dotson

Notary Public SEAL

My Commission Expires:

Appendix A

Mike Dotson

Manager, LG&E/KU Fuels LG&E and KU Services Company 220 West Main Street Louisville, Kentucky 40202 (502) 627-2322

Education

Master of Business Administration 1984
Xavier University, Cincinnati, Ohio

Bachelor of Business Administration 1973
University of Kentucky, Lexington, Kentucky

Experience

LG&E and KU Services Company	Manager, LG	&E/KU Fuels
July 1998 - Present		
Big Rivers Electric Company Vice President of Fuels & Enviro Vice President of Fuels Manager of Fuels	onmental Affairs	Jan 1996 – July 1998 Jan 1994 – Dec 1995 May 1993 – Dec 1993
Kentucky Utilities Company Manager of Fuel Procurement Fuel Contract Administrator		Sep 1991 – May 1993 July 1986 – Sept. 1991
Diamond Shamrock Coal Company Island Creek Coal Company Kentucky American Water Company GTE Sylvania K-Mart Corp.		Feb. 1984 – July 1986 March 1980 – Feb.1984 Sept. 1978–March 1980 Sept. 1976 – Sept. 1978 Jan. 1975 – Sept. 1976

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION OF THE APPLICATION OF))
THE FUEL ADJUSTMENT CLAUSE OF	,	CASE NO.
KENTUCKY UTILITIES COMPANY FROM	,	2012-00552
NOVEMBER 1, 2010 THROUGH OCTOBER 31, 2012	`)

RESPONSE OF KENTUCKY UTILITIES COMPANY TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION IN APPENDIX B OF COMMISSION'S ORDER DATED FEBRUARY 13, 2013

FILED: March 1, 2013

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

Janu. Juney (SEAL

My Commission Expires:

COMMONWEALTH OF KENTUCKY)	
)	SS:
COUNTY OF JEFFERSON)	

The undersigned, Charles R. Schram, being duly sworn, deposes and says that he is Director – Energy Planning, Analysis and Forecasting 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.

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28 M day of Llaway

Notary Public (SEAL)

My Commission Expires:

COMMONWEALTH OF KENTUCKY)	
)	SS
COUNTY OF JEFFERSON)	

The undersigned, **Mike Dotson**, being duly sworn, deposes and says that he is Manager – LG&E and KU Fuels 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.

Mike Dotson

Notary Public

My Commission Expires:

The undersigned, **David L. Tummonds**, being duly sworn, deposes and says that he is General Manager - Cane Run and Combustion Turbines for Louisville Gas and Electric 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.

David L. Tummonds

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 27th day of February, 2013.

Mancy J. Bryant (SEAL) Notary Public

My Commission Expires:

May 27, 2014

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 1

Witness: Robert M. Conroy

- Q-1. If a change in the base fuel cost is proposed, state the month to be used as the base period (b). If the base period results in a fuel cost other than one representative of current costs as prescribed by 807 KAR 5:056, Section 1(2), explain why this base period was selected. If no change is proposed, include an explanation of the reason(s) KU believes the current base period fuel cost should remain unchanged.
- A-1. After reviewing actual FAC costs for the period November 2010 through October 2012, KU recommends that the per unit fuel cost for May 2011 be used as the base period. The attached table shows that the per unit fuel cost for May 2011 was \$0.02892/kWh. KU estimates that the average per unit fuel cost for the period November 2012 through October 2013 will be \$0.02845/kWh and the average per unit fuel cost for the period November 2013 through October 2014 will be \$0.02942/kWh. The per unit fuel cost for May 2011 of \$0.02892/kWh approximates the average of the projects fuel estimates for the two-year period of \$0.02888/kWh. Since no actual per unit fuel cost during the two-year period under review equals the projected per unit fuel cost, KU recommends the use of the actual per unit fuel cost for May 2011 because this is the actual cost from the two-year period ending October 2012 closest to the average projected cost for the next two-year period. This methodology is consistent with what has been used and accepted in previous two year cases, and therefore KU believes May 2011 is the appropriate month to use as the base period for the next two-year period.

KU determined the projected F(m) / S(m) results using projected coal, oil and natural gas expenses, projected purchased power expenses, off-system sales revenues and all associated generated, purchased and sold kilowatt-hours for the period.

Kentucky Utilities Company

Retail Fuel Adjustment Clause Fuel Cost per kWh For the Expense Months Ending October 31, 2012

(1)	(2)	(3)	(4)	(5)
Expense Month	Expense Month	FAC Base \$/kWh	Billing Month	Billing Month
Month	\$/kWh	φ/Κ ٧٧ 11	Month	FAC Factor
	Φ/ K VV II			Col. 2 - 3
Nov-10	\$ 0.02535	\$ 0.0275	4 Jan-11	\$ (0.00219)
Dec-10	\$ 0.02901	\$ 0.0275		\$ 0.00147
Jan-11	\$ 0.02739	\$ 0.0275		\$ (0.00015)
Feb-11	\$ 0.02724	\$ 0.0275	······································	\$ (0.00030)
Mar-11	\$ 0.02695	\$ 0.0275		\$ (0.00059)
Apr-11	\$ 0.02783	\$ 0.0275		\$ 0.00029
May-11	\$ 0.02892	\$ 0.0275	4 Jul-11	\$ 0.00138
Jun-11	\$ 0.02862	\$ 0.0275	4 Aug-11	\$ 0.00108
Jul-11	\$ 0.02980	\$ 0.0266	8 Sep-11	\$ 0.00312
Aug-11	\$ 0.02904	\$ 0.0266	8 Oct-11	\$ 0.00236
Sep-11	\$ 0.02831	\$ 0.0266	8 Nov-11	\$ 0.00163
Oct-11	\$ 0.02458	\$ 0.0266	8 Dec-11	\$ (0.00210)
Nov-11	\$ 0.02612	\$ 0.0266	8 Jan-12	\$ (0.00056)
Dec-11	\$ 0.02633	\$ 0.0266	8 Feb-12	\$ (0.00035)
Jan-12	\$ 0.02658	\$ 0.0266	8 Mar-12	\$ (0.00010)
Feb-12	\$ 0.02722	\$ 0.0266	8 Apr-12	\$ 0.00054
Mar-12	\$ 0.02719	\$ 0.0266	8 May-12	\$ 0.00051
Apr-12	\$ 0.02713	\$ 0.0266	8 Jun-12	\$ 0.00045
May-12	\$ 0.03010	\$ 0.0266	8 Jul-12	\$ 0.00342
Jun-12	\$ 0.02783	\$ 0.0266	8 Aug-12	\$ 0.00115
Jul-12	\$ 0.02816	\$ 0.0266		\$ 0.00148
Aug-12	\$ 0.02764	\$ 0.0266		\$ 0.00096
Sep-12	\$ 0.02818	\$ 0.0266		\$ 0.00150
Oct-12	\$ 0.02491	\$ 0.0266	8 Dec-12	\$ (0.00177)

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 2

Witness: Robert M. Conroy

- Q-2. Provide a calculation of the fossil fuel costs F(b) that KU proposes to use to calculate the base period fuel cost. This calculation shall show each component of F(b) as defined by 807 KAR 5:056. Explain why the fuel cost in the selected base period is representative of the level of fuel cost currently being experienced by KU.
- A-2. Attached is a copy of the Fuel Cost Schedule (Form A, Page 2) for May 2011, which shows the component of the proposed F(b) as defined by 807 KAR 5:056.

As explained in the response to Question No. 1, KU reviewed the per-unit fuel cost for each month during the November 2010 through October 2012 period and compared those values to the projected average per unit fuel cost for the next two-year period. As a result, F(b) and S(b) were considered together in determining the appropriate month to use as a new base fuel component.

Form A Page 2 of 6

KENTUCKY UTILITIES COMPANY FUEL COST SCHEDULE

Expense Month: May 2011

(A) _	Company Generation Coal Burned Oil Burned Gas Burned Fuel (assigned cost during Forced Outage) Fuel (substitute cost for Forced Outage) SUB-TOTAL	(+) (+) (+) (+)	\$ \$38,317,949 1,110,930 3,021,112 1,682,233 1,620,023 42,512,201	(1) (1)
(B)	Purchases			
(6)_	Net energy cost - economy purchases Identifiable fuel cost - other purchases Identifiable fuel cost (substitute for Forced Outage) Less Purchases above Highest Cost Units Internal Economy Internal Replacement SUB-TOTAL	(+) (+) (-) (+) (+)	\$ 1,690,050 - 448,257 - 4,953,044 27,814 6,222,651	
(C)_	Inter-System Sales Including Interchange-out Internal Economy Internal Replacement Dollars Assigned to Inter-System Sales Losses SUB-TOTAL	(+) (+) (+) (+)	\$ 426,533 230,565 2,448,554 4,265 3,109,917	
(D)_	Over or (Under) Recovery From Page 5, Line 13		\$ 112,915	
	TOTAL FUEL RECOVERY (A+B-C-D) =		\$ 45,512,020	

Note: (1) Reflects exclusion of IMEA/IMPA portion of Trimble County Unit 2 fuel cost with recognition of 1% transmission losses per Commission's Order in Case No. 96-524A, B, and C.

Coal burned = \$12,555 Oil burned = \$1,007

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 3

Witness: Robert M. Conroy

- Q-3. Provide a schedule showing each component of sales as defined by 807 KAR 5:056 in the selected base period (b). Explain why KU believes that the sales in the selected base period (b) are representative of the level of kWh sales that KU will derive from the level of fuel cost incurred during the selected base period (b).
- A-3. Attached is a copy of the Sales Schedule (Form A, Page 3) for May 2011, which shows the component of the proposed S(b) as defined by 807 KAR 5:056.

As explained in the response to Question No. 1, KU reviewed the per-unit fuel cost for each month during the November 2010 through October 2012 period and compared those values to the projected average per unit fuel cost for the next two-year period. As a result, F(b) and S(b) were considered together in determining the appropriate month to use as a new base fuel component.

Form A Page 3 of 6

KENTUCKY UTILITIES COMPANY

SALES SCHEDULE (KWH)

Expense Month: May 2011

(A) Generation (Net) Purchases includi Internal Economy Internal Replacem		(+) (+) (+) (+)	1,502,522,000 54,861,924 211,197,000 882,000
SUB-TOT <u>A</u> L			1,769,462,924
(B) Inter-system Sales Internal Economy Internal Replacem (*) System Loss SUB-TOTAL	(+) (+) (+) (+)	13,001,000 8,230,000 86,379,000 88,338,295 195,948,295	
	TOTAL SALES (A-B)		1,573,514,629

^(*) Note: See Page 4 of 6, "Adjustment of rolling 12-MTD average overall system losses to reflect losses

	•		

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 4

Witness: Robert M. Conroy

Q-4. Provide a schedule showing the calculation of KU's proposed increase or decrease in its base fuel cost per kWh to be incorporated into its base rate.

A-4.

Current Base

\$0.02668/kWh

Proposed Base

\$0.02892/kWh

Increase in Base Rates

\$0.00224/kWh

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 5

Witness: Mike Dotson

- Q-5. Provide KU's most recent projected fuel requirements for the years 2013 and 2014 in tons and dollars.
- A-5. Coal Purchases

	Tons	Dollars
2013	9,141,186	\$482,226,708
2014	9,256,499	\$501,848,586

CONFIDENTIAL INFORMATION REDACTED

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 6

Witness: Robert M. Conroy

Q-6. Provide KU's most recent sales projections for the years 2013 and 2014 in kWh and dollars.

A-6.

Year	Forecasted kWh	Forecasted \$
2013	21,491,388,000	S S Gazi
2014	21,591,077,400	

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 7

Witness: Robert M. Conroy

- Q-7. Provide separately the amounts of power purchases used in the calculation of sales provided in response to Item 3.
- A-7. Below is the data from the Purchased Power Transaction Schedule for May 2011, which is used in the calculation of Sales as defined by 807 KAR 5:056 and shown in the response to Question No. 3.

COMPANY	kWh
PJM Interconnection Association	6,856,000
American Electric Power Service Corp.	400,000
Ameren Energy Marketing Company	2,217,000
Big Rivers Electric Corp.	0
Cargill- Alliant, Llc	941,000
Edf Trading	2,179,000
East Kentucky Power Cooperative	2,093,000
Illinois Municipal Electric Agency	15,000
Indiana Municipal Power Agency	48,000
Energy Imbalance	447,000
The Energy Authority	45,000
Tenaska Power Services Co.	84,000
Ameren Energy, Inc.	6,000
Louisville Gas & Electric	212,079,000
Ohio Valley Electric Corporation	30,750,000
TOTAL PURCHASES	258,160,000

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 8

Witness: Robert M. Conroy

- Q-8. Provide separately the amounts of intersystem power sales used in the calculation of sales provided in response to Item 3.
- A-8. Below is the data from the Sales Power Transaction Schedule for April 2012, which is used in the calculation of Sales as defined by 807 KAR 5:056 and shown in the response to Question No. 3.

COMPANY	kWh
Midwest Independent Transmission System Operator, Inc.	568,000
PJM Interconnection Association	7,067,000
American Electric Power Service Corp.	462,000
Ameren Energy Marketing Company	85,000
Cargill- Alliant, Llc	275,000
Citigroup Energy, Inc.	19,000
East Kentucky Power Cooperative	167,000
Endure Energy	107,000
Illinois Municipal Electric Agency	34,000
Indiana Municipal Power Agency	188,000
Energy Imbalance	56,000
Merrill Lynch Commodities Inc.	9,000
The Energy Authority	168,000
Tenaska Power Services Co.	5,000
Tennessee Valley Authority	3,709,000
Westar Energy, Inc.	82,000
Louisville Gas & Electric	94,609,000
TOTAL SALES	107,610,000

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 9

Witness: Charles R. Schram

- Q-9. Provide the planned maintenance schedule for each of KU's generating units for the years 2013 and 2014.
- A-9. The information requested is being provided pursuant to a Petition for Confidential Treatment. A redacted version of the requested information is attached to this response.

2013 KU Weekly Maintenance Detail

								*	*	*					*	*	*	*	*	*	*			**	*
MAINT	Gh1	Gh2	Gh3	Gh4	Br1	Br2	Br3	Br5	Br6	Br7	Br8	Br9	Br10	Br11		TC5	TC6	TC7	TC8	TC9	TC10	GR3	GR4	TY3	TC2
WEEK	468	466	482	481	102	169	420	143	168	168	140	140	140	140	175	180	180	180	180	180	180	71	102	73	571
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2013 KU Weekly Maintenance Detail

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MAINT	Gh1	Gh2	Gh3	Gh4	Br1	Br2	Br3	Br5	Br6	Br7	Br8	Br9	Br10	Br11	PR13	TC5	TC6	TC7	TC8	TC9	TC10	GR3	GR4	TY3	TC2
WEEK	468	466	482	481	102	169	420	143	168	168	140	140	140	140	175	180	180	180	180	180	180	71	102	73	571
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Notes:

^{*} Jointly owned units between LG&E/KU

^{**} TY3 Retired

2014 KU Weekly Maintenance Detail

MAINT Gh1 Gh2 Gh2 Gh3 Gh4 Br1 Br2 Br3 Br6 Br6 Br6 Br7 Br8 Br9 Br10 Br11 PR13 TC5 TC6 TC7 TC8 TC9 TC10 GR3 GR4 TX3 TC2 WEEK 488 486 482 481 102 189 420 143 168 168 169 140 140 140 175 180 180 180 180 180 71 102 73 571 1/13 1/13 1/13 1/20 1/27 2/30 2/10 2/17 2/24 3/30 3/1									*	*	*					*	*	*	*	*	*	*			**	*
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2014 KU Weekly Maintenance Detail

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MAINT	Gh1	Gh2	Gh3	Gh4	Br1	Br2	Br3	Br5	Br6	Br7	Br8	Br9	Br10	Br11	PR13	TC5	TC6	TC7	TC8	TC9	TC10	GR3	GR4	TY3	TC2
WEEK	468	466	482	481	102	169	420	143	168	168	140	140	140	140	175	180	180	180	180	180	180	71	102	73	571
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Notes:

Schram

^{*} Jointly owned units between LG&E/KU

^{**} TY3 Retired

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 10

Witness: Charles R. Schram

- Q-10. For the years ending October 31,2011 and October 31,2012, provide:
 - a. Maximum annual system demand; and
 - b. Average annual demand.
- A-10. a. Maximum annual net system demand:

Year Ending	Peak Demand (MW)
October 31, 2011	4,517
October 31, 2012	4,138

b. Average annual system demand:

Year Ending	Peak Demand (MW)
October 31, 2011	2,604
October 31, 2012	2,517

^{*}Average demand is calculated as the year ending energy divided by the hours per year.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 11

Witness: Charles R. Schram

Q-11. List all firm power commitments for KU for the years 2013 and 2014 for (a) purchases and (b) sales. This list shall identify the other party (buyer or seller), the amount of commitment in MW, and the purpose of the commitment (e.g., peaking, emergency).

A-11. a. Firm Purchases

The firm purchases from Ohio Valley Electric Corporation (OVEC) for the review period are shown in the table below. KU purchased its participation ratio (2.5%) of the OVEC released capacity for the months in question.

b. Firm Sales

None.

Response to Question No. 11
Page 2 of 2
Schram

	Companies'	KU Portion	
Utility	Amt (MW)	(MW)	Purpose
OVEC (Jan 2013)	~ 150	~ 46	Baseload
OVEC (Feb 2013)	~ 136	~ 42	Baseload
OVEC (Mar 2013)	~ 122	~ 37	Baseload
OVEC (Apr 2013)	~ 116	~ 36	Baseload
OVEC (May 2013)	~ 121	~ 37	Baseload
OVEC (Jun 2013)	~ 157	~ 48	Baseload
OVEC (Jul 2013)	~ 155	~ 48	Baseload
OVEC (Aug 2013)	~ 155	~ 48	Baseload
OVEC (Sep 2013)	~ 135	~ 42	Baseload
OVEC (Oct 2013)	~ 144	~ 44	Baseload
OVEC (Nov 2013)	~ 137	~ 42	Baseload
OVEC (Dec 2013)	~ 159	~ 49	Baseload
OVEC (Jan 2014)	~ 158	~ 49	Baseload
OVEC (Feb 2014)	~ 151	~ 46	Baseload
OVEC (Mar 2014)	~ 140	~ 43	Baseload
OVEC (Apr 2014)	~ 105	~ 32	Baseload
OVEC (May 2014)	~ 134	~ 41	Baseload
OVEC (Jun 2014)	~ 154	~ 47	Baseload
OVEC (Jul 2014)	~ 152	~ 47	Baseload
OVEC (Aug 2014)	~ 152	~ 47	Baseload
OVEC (Sep 2014)	~ 132	~ 41	Baseload
OVEC (Oct 2014)	~ 119	~ 36	Baseload
OVEC (Nov 2014)	~ 146	~ 45	Baseload
OVEC (Dec 2014)	~ 158	~ 49	Baseload

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 12

Witness: Robert M. Conroy

Q-12. Provide a monthly billing summary for all sales to all electric utilities for the period May 1, 2012 through October 31,2012.

A-12. See attached.



Power Transaction Schedule

					Billing Componen	ts		
		Type of			Fuel		Other	Total
COMPANY		Transaction	KWH	Demand(\$)	 Charges(\$)		Charges(\$)	 Charges(\$)
SALES								
AMERICAN ELECTRIC POWER SERVICE CORP.	AEP	Economy	1,000		\$ 105.03	\$	8.75	\$ 113.78
CARGILL- ALLIANT, LLC	CARG	Economy	2,000		\$ 215.74	\$	17.97	\$ 233.71
ETC ENDURE	ETC	Economy	8,000		\$ 861.82	\$	71.78	\$ 933.60
ENERGY IMBALANCE	IMBL	Economy	4,000		\$ 522.53	\$	43.52	\$ 566.05
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.	MISO	Economy	2,000		\$ 200.46	\$	16.70	\$ 217.16
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	40,000		\$ 4,552.05	\$	277.07	\$ 4,829.12
TENASKA POWER SERVICES CO.	TPS	Economy	14,000		\$ 1,517.35	\$	92.36	\$ 1,609.71
TENNESSEE VALLEY AUTHORITY	TVA	Economy	4,000		\$ 435.27	\$	36.25	\$ 471.52
LOUISVILLE GAS & ELECTRIC	LGE	Economy	12,437,000		\$ 423,684.94	\$	12,893.05	\$ 436,577.99
SUBTOTAL			12,512,000	\$ -	\$ 432,095.19	\$	13,457.45	\$ 445,552.64
TOTAL SALES			12,512,000	\$ -	\$ 432,095.19	\$	13,457.45	\$ 445,552.64



Power Transaction Schedule

Month Ended June-00-2012					Billing Componen	ts		
		Type of			Fuel		Other	Total
COMPANY		Transaction	KWH	Demand(\$)	 Charges(\$)		Charges(\$)	 Charges(\$)
SALES								
ASSOCIATED ELECT COOPERATIVE	AECI	Economy	33,000		\$ 857.65	\$	399.58	\$ 1,257.23
AMERICAN ELECTRIC POWER SERVICE CORP.	AEP	Economy	228,000		\$ 7,268.42	\$	3,271.99	\$ 10,540.41
AMEREN ENERGY MARKETING COMPANY	AMEM	Economy	8,000		\$ 242.92	\$	113.17	\$ 356.09
CARGILL- ALLIANT, LLC	CARG	Economy	152,000		\$ 8,158.73	\$	3,672.77	\$ 11,831.50
CONSTELLATION ENERGY COMDS, GRP, INC.	CONS	Economy	573,000		\$ 27,361.53	\$	12,317.18	\$ 39,678.71
EAST KENTUCKY POWER COOPERATIVE	EKPC	Economy	4,000		\$ 303.57	\$	141.44	\$ 445.01
ETC ENDURE	ETC	Economy	711,000		\$ 22,788.50	\$	10,258.58	\$ 33,047.08
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	57,000		\$ 3,425.29	\$	1,595.84	\$ 5,021.13
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	127,000		\$ 6,131.17	\$	2,760.05	\$ 8,891.22
ENERGY IMBALANCE	IMBL	Economy	112,000		\$ 3,132.46	\$	1,410.13	\$ 4,542.59
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.	MISO	Economy	122,000		\$ 3,529.88	\$	1,589.02	\$ 5,118.90
PJM INTERCONNECTION ASSOCIATION	РЈМ	Economy	1,495,000		\$ 37,853.04	\$	17,040.10	\$ 54,893.14
TENASKA POWER SERVICES CO.	TPS	Economy	215,000		\$ 5,273.87	\$	2,374.12	\$ 7,647.99
TENNESSEE VALLEY AUTHORITY	TVA	Economy	57,000		\$ 1,479.76	\$	689.42	\$ 2,169.18
WESTAR ENERGY, INC.	WSTR	Economy	44,000		\$ 1,442.34	\$	671.99	\$ 2,114.33
LOUISVILLE GAS & ELECTRIC	LGE	Economy	37,670,000		\$ 1,173,010.95	\$	12,874.78	\$ 1,185,885.73
SUBTOTAL			41,608,000	\$ -	\$ 1,302,260.08	\$	71,180.16	\$ 1,373,440.24
TOTAL SALES			41,608,000	\$ -	\$ 1,302,260.08	\$	71,180.16	\$ 1,373,440.24



Power Transaction Schedule

Month Ended July -31-2012					Billing Componen	ts		
		Type of			Fuel		Other	Total
COMPANY		Transaction	KWH	Demand(\$)	 Charges(\$)		Charges(\$)	 Charges(\$)
SALES								
AMERICAN ELECTRIC POWER SERVICE CORP.	AEP	Economy	712,000		\$ 26,470.10	\$	16,836.75	\$ 43,306.85
AMEREN ENERGY MARKETING COMPANY	AMEM	Economy	38,000		\$ 960.05	\$	610.66	\$ 1,570.71
CARGILL- ALLIANT, LLC	CARG	Economy	1,072,000		\$ 33,798.75	\$	21,498.24	\$ 55,296.99
CONSTELLATION ENERGY COMDS, GRP, INC.	CONS	Economy	492,000		\$ 20,119.32	\$	12,797.23	\$ 32,916.55
EAST KENTUCKY POWER COOPERATIVE	EKPC	Economy	303,000		\$ 10,249.93	\$	6,519.64	\$ 16,769.57
ETC ENDURE	ETC	Economy	1,632,000		\$ 51,667.59	\$	32,864.03	\$ 84,531.62
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	180,000		\$ 8,204.10	\$	8,248.44	\$ 16,452.54
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	442,000		\$ 17,786.66	\$	13,508.47	\$ 31,295.13
ENERGY IMBALANCE	IMBL	Economy	538,000		\$ 15,660.67	\$	9,961.23	\$ 25,621.90
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.	MISO	Economy	786,000		\$ 22,044.26	\$	14,021.62	\$ 36,065.88
PJM INTERCONNECTION ASSOCIATION	РЈМ	Economy	5,328,000		\$ 210,660.00	\$	133,993.77	\$ 344,653.77
TENASKA POWER SERVICES CO.	TPS	Economy	714,000		\$ 28,039.83	\$	17,835.18	\$ 45,875.01
TENNESSEE VALLEY AUTHORITY	TVA	Economy	76,000		\$ 2,058.97	\$	1,309.65	\$ 3,368.62
WESTAR ENERGY, INC.	WSTR	Economy	276,000		\$ 14,484.69	\$	9,213.22	\$ 23,697.91
LOUISVILLE GAS & ELECTRIC	LGE	Economy	29,762,000		\$ 943,476.23	\$	12,135.62	\$ 955,611.85
SUBTOTAL			42,351,000	\$ -	\$ 1,405,681.15	\$	311,353.75	\$ 1,717,034.90
TOTAL SALES			42,351,000	\$ -	\$ 1,405,681.15	\$	311,353.75	\$ 1,717,034.90



Power Transaction Schedule

Worth Ended. August-31-2012						Billing Compon	ents		
		Type of				Fuel		Other	 Total
COMPANY		Transaction	KWH	Demand(\$)		Charges(\$)		Charges(\$)	 Charges(\$)
		· · · · · · · · · · · · · · · · · · ·							
SALES		_			_				0.045.65
AMERICAN ELECTRIC POWER SERVICE CORP.	AEP	Economy	74,000		\$	2,135.50	\$	1,182.15	\$ 3,317.65
CARGILL- ALLIANT, LLC	CARG	Economy	119,000		\$	3,617.62	\$	2,002.63	\$ 5,620.25
ETC ENDURE	ETC	Economy	165,000		\$	6,662.69	\$	3,688.31	\$ 10,351.00
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	133,000		\$	5,089.76	\$	8.114.35	\$ 13,204.11
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	159,000		\$	6,293.62	\$	9,229.89	\$ 15,523.51
ENERGY IMBALANCE	IMBL	Economy	588,000		\$	18,063.54	\$	6,538.70	\$ 24,602.24
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.	MISO	Economy	133,000		\$	3,876.99	\$	2,146.21	\$ 6,023.20
PJM INTERCONNECTION ASSOCIATION	РЈМ	Economy	1,377,000		\$	45,077.67	\$	24,953.97	\$ 70,031.64
TENASKA POWER SERVICES CO.	TPS	Economy	267,000		\$	7,249.60	\$	4,013.23	\$ 11,262.83
WESTAR ENERGY, INC.	WSTR	Economy	221,000		\$	8,786.93	\$	4,864.25	\$ 13,651.18
LOUISVILLE GAS & ELECTRIC	LGE	Economy	27,909,000		\$	843,035.27	\$	7,539.39	\$ 850,574.66
SUBTOTAL			31,145,000	\$ -	\$	949,889.19	\$	74,273.08	\$ 1,024,162.27
TOTAL SALES			31,145,000	<u>\$</u>	\$	949,889.19	\$	74,273.08	\$ 1,024,162.27



Power Transaction Schedule

2011				Billing Components						
		Type of			Fue	el		Other		Total
COMPANY		Transaction	KWH	Demand(\$)	Charge	es(\$)		Charges(\$)		Charges(\$)
SALES										
AMEREN ENERGY MARKETING COMPANY	AMEM	Economy	66,000		\$ 1	1,769.10	\$	608.89	\$	2,377.99
CARGILL- ALLIANT, LLC	CARG	Economy	105,000		\$ 2	2,943.88	\$	1,013.24	\$	3,957.12
EAST KENTUCKY POWER COOPERATIVE	EKPC	Economy	96,000		\$ 2	2,573.23	\$	885.66	\$	3,458.89
ETC ENDURE	ETC	Economy	98,000		\$ 2	2,799.92	\$	963.69	\$	3,763.61
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	85,000		\$ 3	3,667.74	\$	4,694.38	\$	8,362.12
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	78,000		\$ 3	3,716.20	\$	3,025.90	\$	6,742.10
ENERGY IMBALANCE	IMBL	Economy	43,000		\$ 1	,404.67	\$	318.07	\$	1,722.74
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.	MISO	Economy	26,000		\$	957.38	\$	362.26	\$	1,319.64
OWENSBORO MUNICIPAL UTILITIES	OMU	Economy	16,000		\$	496.96	\$	188.05	\$	685.01
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	743,000		\$ 25	5,355.01	\$	8,827.50	\$	34,182.51
TENASKA POWER SERVICES CO.	TPS	Economy	112,000		\$ 3	3,519.08	\$	1,211.21	\$	4,730.29
TENNESSEE VALLEY AUTHORITY	TVA	Economy	207,000		\$ 5	5,876.67	\$	2,022.66	\$	7,899.33
WESTAR ENERGY, INC.	WSTR	Economy	116,000		\$ 4	1,217.34	\$	1,451.51	\$	5,668.85
LOUISVILLE GAS & ELECTRIC	LGE	Economy	30,266,000		\$ 894	1,202.90	\$	23,042.65	_\$	917,245.55
SUBTOTAL			32,057,000	<u>\$ -</u>	\$ 953	3,500.08	_\$_	48,615.67	\$	1,002,115.75
TOTAL SALES			32,057,000	\$ -	\$ 953	3,500.08	\$	48,615.67		1,002,115.75



Power Transaction Schedule

Wolffi Elided: October-51-2012					Billing Componen	ts		
		Type of			 Fuel		Other	Total
COMPANY		Transaction	KWH	Demand(\$)	 Charges(\$)		Charges(\$)	 Charges(\$)
SALES								
AMEREN ENERGY MARKETING COMPANY	AMEM	Economy	5,000		\$ 112.33	\$	52.62	\$ 164.95
CARGILL- ALLIANT, LLC	CARG	Economy	99,000		\$ 2,413.08	\$	1,094.93	\$ 3,508.01
EAST KENTUCKY POWER COOPERATIVE	EKPC	Economy	67,000		\$ 1,593.51	\$	746.42	\$ 2,339.93
ETC ENDURE	ETC	Economy	111,000		\$ 2,704.77	\$	1,227.29	\$ 3,932.06
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	19,000		\$ 835.68	\$	1,067.56	\$ 1,903.24
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	24,000		\$ 1,015.87	\$	1,307.63	\$ 2,323.50
JP Morgan Ventures Energy Corporation	JPMORG	Economy	9,000		\$ 208.76	\$	97.79	\$ 306.55
ENERGY IMBALANCE	IMBL	Economy	3,000		\$ 76.08	\$	35.63	\$ 111.71
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.	MISO	Economy	88,000		\$ 2,040.98	\$	926.09	\$ 2,967.07
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	1,206,000		\$ 32,194.87	\$	14,608.30	\$ 46,803.17
TENASKA POWER SERVICES CO.	TPS	Economy	19,000		\$ 505.11	\$	236.60	\$ 741.71
TENNESSEE VALLEY AUTHORITY	TVA	Economy	19,000		\$ 450.39	\$	210.97	\$ 661.36
WESTAR ENERGY, INC.	WSTR	Economy	11,000		\$ 262.53	\$	122.98	\$ 385.51
LOUISVILLE GAS & ELECTRIC	LGE	Economy	30,405,000		\$ 808,840.89	\$	46,791.06	\$ 855,631.95
SUBTOTAL			32,085,000	\$ -	 853,254.85	\$	68,525.87	\$ 921,780.72
TOTAL SALES			32,085,000	\$ -	\$ 853,254.85		68,525.87	\$ 921,780.72

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 13

Witness: Robert M. Conroy

- Q-13. a. Provide a schedule of the calculation of the 12-month average line loss by month for November 2010 through October 2012.
 - b. Describe the actions that KU has taken to reduce line loss during this period.

A-13. a. See attached.

b. KU's transmission and distribution system is constantly being expanded and upgraded to provide reliable electric service. All enhancements contribute to a system that will operate with fewer line losses. New line construction and transformer additions provide parallel facilities and reduce the current in existing facilities. Replacing existing conductors with larger conductors or replacing existing transformers with larger transformers reduces the resistance. Adding capacitors near the load reduces system reactive power (VAR) requirements and line and transformer currents. Any reduction in current and/or resistance results in reduced losses. The Company's planning and design objective is to provide a reliable transmission and distribution system at a reasonable cost. For Transmission and Distribution, the cost for losses are evaluated as outlined below.

Transmission:

The cost of transmission line losses is included in the economic analysis when evaluating the cost of alternative projects. The costs of core and copper losses are incorporated into the selection of all transmission transformers.

Distribution:

Losses are evaluated in the selection of standard line materials (cables, wires, distribution transformers, etc.) and distribution substation transformers. Total ownership cost, which includes the cost of no-load, load and auxiliary losses, is incorporated into the selection of distribution and substation transformers

Kentucky Utilities Company 12 month Average Line Loss November 2010 - October 2012

(1)	(2)	(3)	(4)	(5)	(6)
	Total kWh	Total kWh	12 Months	Total kWh	Current Month
	Sources 12	System Losses	End %	Sources	Calculates
Month	Months Ended	12 Months Ended	Losses	Current Month	System
	Current Month	Current Month			Losses (kWh)
			(3) / (2)		(4) x (5)
Nov-2010	23,611,150,000	1,423,252,361	6.027882%	1,709,184,000	103,027,595
Dec-2010	23,838,910,250	1,356,770,557	5.691412%	2,345,190,250	133,474,439
Jan-2011	23,845,221,315	1,177,852,312	4.939574%	2,397,984,065	118,450,197
Feb-2011	23,595,190,296	1,318,478,832	5.587914%	1,971,120,981	110,144,545
Mar-2011	23,651,682,582	1,230,140,265	5.201069%	1,909,459,286	99,312,295
Apr-2011	23,675,027,033	1,229,975,029	5.195242%	1,606,573,451	83,465,379
May-2011	23,640,633,957	1,180,230,082	4.992379%	1,769,462,924	88,338,295
Jun-2011	23,625,327,757	1,211,282,345	5.127050%	2,002,082,800	102,647,786
Jul-2011	23,729,886,969	1,210,201,637	5.099905%	2,237,759,212	114,123,594
Aug-2011	23,548,179,282	1,016,027,714	4.314676%	2,127,327,313	91,787,281
Sep-2011	23,424,340,094	957,827,701	4.089027%	1,729,108,812	70,703,726
Oct-2011	23,646,057,094	888,934,419	3.759335%	1,840,804,000	69,201,989
Nov-2011	23,700,249,094	799,989,203	3.375446%	1,763,376,000	59,521,805
Dec-2011	23,397,548,844	925,676,935	3.956299%	2,042,490,000	80,807,011
Jan-2012	23,179,699,779	942,068,025	4.064194%	2,180,135,000	88,604,916
Feb-2012	23,093,492,172	955,659,770	4.138221%	1,884,913,374	78,001,881
Mar-2012	22,899,544,886	967,585,024	4.225346%	1,715,512,000	72,486,318
Apr-2012	22,910,607,435	993,042,094	4.334421%	1,617,636,000	70,115,154
May-2012	22,998,763,511	1,028,956,662	4.473965%	1,857,619,000	83,109,224
Jun-2012	22,968,514,711	1,046,576,957	4.556572%	1,971,834,000	89,848,036
Jul-2012	22,987,234,499	1,144,996,042	4.981008%	2,256,479,000	112,395,400
Aug-2012	22,961,113,186	1,210,975,067	5.274026%	2,101,206,000	110,818,151
Sep-2012	22,984,536,374	1,231,714,954	5.358885%	1,752,632,000	93,921,533
Oct-2012	22,860,424,374	1,261,603,213	5.518722%	1,716,692,000	94,739,459

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Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 14

Witness: David L. Tummonds

Q-14. List KU's scheduled, actual, and forced outages between May 1, 2012 and October 31, 2012.

A-14. See attached.

Schedule vs. Actual

Kentucky Utilities Company E. W. Brown Unit 1 - Coal - 106 MW In-service May 1957 May 2012 through October 2012

	MAINTENANCE							
	Scheduled	Actual					REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR	
MONTH	FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No Outages > or = 6 Hours							
June	No Outages > or = 6 Hours							
July	No Outages > or = 6 Hours							
August	No Outages > or = 6 Hours							
September	No Outages > or = 6 Hours							
October S	10/13/2012 0:00		10/16/2012 6:02		456:00		377:58	Minor boiler overhaul.

Kentucky Utilities Company E. W. Brown Unit 2 - Coal - 166 MW In-service June 1963 May 2012 through October 2012

	Cobadulad		MAINTENANCE						
		Scheduled		Actual			S OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH		FROM	ТО	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	s	5/11/2012 4:45	5/11/2012 17:30	5/11/2012 4:45	5/11/2012 17:30	12:45		12:45	Internal inspection of burner tilts operation.
	s	5/12/2012 5:53	5/12/2012 20:40	5/12/2012 5:53	5/12/2012 20:40	14:47		14:47	Burner nozzle replacement.
June	S	6/22/2012 20:22	6/25/2012 2:47	6/22/2012 20:22	6/25/2012 2:47	54:25		54:25	Condenser tube leak.
	F			6/26/2012 8:43	6/27/2012 6:25		21:42		Condenser tube leak.
July	No C	Outages > or = 6 Hours							
August	S	8/10/2012 19:10	8/11/2012 17:01	8/10/2012 19:10	8/11/2012 17:01	21:51		21:51	Bottom ash hopper.
Septembe	r S	9/29/2012 0:00		9/27/2012 21:35		48:00		74:25	Minor boiler overhaul.
October	s		10/14/2012 15:00		10/16/2012 1:15	327:00		361:15	o n s

Kentucky Utilities Company E. W. Brown Unit 3 - Coal - 412 MW In-service July 1971 May 2012 through October 2012

	MAINTENANCE Actual								
}		cheduled		Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	L	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	S	5/10/2012 6:30	5/10/2012 16:45	5/10/2012 6:30	5/10/2012 16:45	10:15		10:15	Burner line and nozzle.
June	S	6/1/2012 22:00	6/4/2012 6:43	6/1/2012 22:00	6/4/2012 6:43	56:43		56:43	Air heater wash.
	F			6/29/2012 6:46	6/29/2012 12:56		6:10		Exciter cooling water piping leak.
July	No Outages	> or = 6 Hours							
August	No Outages	> or = 6 Hours							
September	r S	9/22/2012 0:00		9/19/2012 13:53		216:00		274:07	Major turbine overhaul.
October	S		~~~~~	──		744:00		744:00	

Kentucky Utilities Company Ghent Unit 1 - Coal - 479 MW In-service February 1974 May 2012 through October 2012

			MAINTENANCE						THE STATE OF THE S
	Sc	heduled		Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM		то	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	F			5/1/2012 0:32	5/1/2012 15:39		15:07		Boiler drain valve.
	S	5/11/2012 23:28	5/13/2012 2:58	5/11/2012 23:28	5/13/2012 2:58	27:30		27:30	Induced draft fan vibrations.
June	No Outages	or = 6 Hours							
July	F			7/5/2012 13:31	7/5/2012 20:50		7:19		Induced draft fan.
August	S	8/4/2012 17:59	8/7/2012 16:07	8/4/2012 17:59	41128.67153	70:08		70:08	Air heater.
	F			8/27/2012 5:47	8/29/2012 19:51		62:04		Waterwall tube leak.
September	No Outages	or = 6 Hours							
October	F			10/1/2012 15:23	10/2/2012 23:12		31:49		Burner windbox fire.
	F			10/17/2012 7:07	10/17/2012 15:55		8:48		Steam turbine control system upgrade.

Kentucky Utilities Company Ghent Unit 2 - Coal - 495 MW In-service April 1977 May 2012 through October 2012

			MAINTENANCE						
Ì		Scheduled		Actual			S OF DUR		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	F	ROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	S		5/27/2012 15:00		5/25/2012 12:33	639:00		588:33	Major turbine overhaul.
	F			5/25/2012 15:25	5/26/2012 5:48		14:23		Generator vibration.
	F			5/29/2012 22:08	6/1/2012 18:19		68:11		Turbine pressure.
June	Νο Οι	stages > or = 6 Hours							
July	F			7/27/2012 9:26	7/28/2012 3:44		18:18		Boiler tube leak.
August	S	8/3/2012 13:54	8/4/2012 6:42	8/3/2012 13:54	8/4/2012 6:42	16:48		16:48	Waterwall tube leak.
	S	8/31/2012 23:16		8/31/2012 23:16		0:44		0:44	Turbine reheat stop valves.
September	S		9/2/2012 16:29		9/2/2012 16:29	40:29		40:29	
October	No Ou	utages > or = 6 Hours							

Kentucky Utilities Company Ghent Unit 3 - Coal - 489 MW In-service May 1981 May 2012 through October 2012

			MAINTENANCE						
		heduled		Actual			S OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM		TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	F			5/8/2012 13:50	5/9/2012 18:38		28:48		Desuperheater line leak.
	F			5/24/2012 8:39	5/25/2012 20:39		36:00		First superheater leak.
	F			5/26/2012 12:24	5/26/2012 20:53		8:29		Inverter.
June	No Outages >	or = 6 Hours							
July	s	7/28/2012 8:50	7/29/2012 20:49	7/28/2012 8:50	7/29/2012 20:49	35:59		35:59	Electrostatic precipitator.
August	No Outages >	or = 6 Hours							
September	S	9/14/2012 19:43	9/17/2012 16:33	9/14/2012 19:43	9/17/2012 16:33	68:50		68:50	Air heater.
October	No Outages >	or = 6 Hours							

Kentucky Utilities Company Ghent Unit 4 - Coal - 469 MW In-service August 1984 May 2012 through October 2012

					LIQUED OF BURNETON				
	Scl	heduled		Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM		ТО	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
Мау	No Outages >	or = 6 Hours							
June	S	6/5/2012 12:59	6/7/2012 14:01	6/5/2012 12:59	6/7/2012 14:01	49:02		49:02	Induced draft fan.
July	No Outages >	or = 6 Hours							
August	S	8/25/2012 0:47	8/26/2012 4:00	8/25/2012 0:47	8/26/2012 4:00	27:13		27:13	Forced draft fan vibration.
September	S	9/8/2012 1:41	9/9/2012 21:16	9/8/2012 1:41	9/9/2012 21:16	43:35		43:35	Induced draft fan vibration.
	F			9/24/2012 12:37	9/25/2012 15:12		26:35		Condenser tube leak.
October	S	10/13/2012 0:00		10/12/2012 13:55		456:00		466:05	Air heater.

Kentucky Utilities Company Green River Unit 3 - Coal - 68 MW In-service April 1954 May 2012 through October 2012

	MAINTENANCE								
		Scheduled		Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH		FROM	TO	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	s	5/15/2012 22:54	5/19/2012 21:31	5/15/2012 22:54	5/19/2012 21:31	94:37		94:37	Generator seal oil system piping leak.
June	S	6/1/2012 23:51	6/3/2012 0:19	6/1/2012 23:51	6/3/2012 0:19	24:28		24:28	Boiler drain line leak.
	F			6/23/2012 22:31	6/25/2012 23:48		49:17		River stream low condition.
July	F			7/26/2012 14:14	7/27/2012 20:39		30:25		Induced draft fan bearing.
August	s	8/10/2012 23:33	8/11/2012 14:25	8/10/2012 23:33	8/11/2012 14:25	14:52		14:52	Hydrogen coolers clean.
	F			8/28/2012 9:30	8/29/2012 18:29		32:59		Waterwall tube leak.
September	No	Outages > or = 6 Hours							
October	F			10/2/2012 13:35	10/3/2012 20:31		30:56		Condenser tube leak.
	s	10/27/2012 0:00		10/25/2012 7:00		120:00		161:00	Minor boiler overhaul.

Kentucky Utilities Company Green River Unit 4 - Coal - 95 MW In-service July 1959 May 2012 through October 2012

	T			MAINTENANCE						
		Sch	eduled		Actual			S OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	Γ	FROM		TO	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
Мау	s		5/5/2012 0:00	5/13/2012 15:00	5/4/2012 21:40	5/13/2012 6:19	207:00		200:39	Minor boiler overhaul.
June	F				6/2/2012 14:51	6/4/2012 7:27		40:36		Second superheater leak.
July	s		7/21/2012 8:26	7/22/2012 15:58	7/21/2012 8:26	7/22/2012 15:58	31:32		31:32	Second superheater leak.
August	F				8/3/2012 22:28	8/5/2012 2:50		28:22		Turbine lube oil coolers.
	F				8/12/2012 16:45	8/14/2012 12:58		44:13		Second superheater leak.
Septembe	rF				9/6/2012 6:58	9/7/2012 9:03		26:05		Second superheater leak.
October	F				10/1/2012 13:19	10/3/2012 8:47		43:28		Second superheater leak.

Kentucky Utilities Company
Trimble County Unit #2 - Coal - 549 MW (75% ownership share of 732 MW jointly owned with LG&E)
In-service January 2011
May 2012 through October 2012

			MAINTENANCE						
		cheduled		Actual			S OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	<u> </u>	TO	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	S					744:00		744:00	Boiler outage.
June	S		6/3/2012 15:00		6/1/2012 5:46	63:00		5:46	n n
June	F			6/1/2012 6:43	6/1/2012 14:31		7:48		Feedwater flow.
	F			6/3/2012 7:27	6/8/2012 19:48		132:21		Boiler tube leak.
July	No outages >	or = 6 hours							
August	No outages >	or = 6 hours							
September	S	9/8/2012 2:47	9/16/2012 22:38	9/8/2012 2:47	9/16/2012 22:38	211:51		211:51	Burner inspections.
	F			9/17/2012 1:23	9/17/2012 7:30		6:07		Feedwater by-pass valve.
	F			9/19/2012 22:03	9/20/2012 8:53		10:50		Solenoid.
	F			9/28/2012 3:15			68:45		Economizer leak.
October	F				10/1/2012 3:43		3:43		a n
	F			10/16/2012 13:47	10/18/2012 16:29		50:42		Boiler tube leak.
	S	10/27/2012 0:00		10/27/2012 2:29		120:00		117:31	Warranty inspection.

Kentucky Utilities Company Tyrone Unit 3 - Coal - 71 MW In-service July 1953 May 2012 through October 2012 Schedule vs. Actual

		MAINTENANCE						
	Scheduled		Actual		HOURS	OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	ТО	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE

May No Outages > or = 6 Hours

No Outages > or = 6 Hours

July No Outages > or = 6 Hours

June

October

August No Outages > or = 6 Hours

September No Outages > or = 6 Hours

*TY3 on Inactive Reserve

No Outages > or = 6 Hours

Kentucky Utilities Company
E. W. Brown 5 - Gas CT - 112 MW (jointly owned with LG&E)
In-service June 2001
May 2012 through October 2012

		MAINTENANCE						
	Scheduled		Actual		HOURS	S OF DURA	ATION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No Outages > or = 6 Hours							
June	F		6/14/2012 12:55	6/15/2012 17:03		28:08		GSU transformer.
July	No Outages > or = 6 Hours							
August	No Outages > or = 6 Hours							
September	S 9/17/2012 8:40	9/19/2012 9:20	9/17/2012 8:40	9/19/2012 9:20	48:40		48:40	Disturbance monitering equipment installation.
	F		9/19/2012 9:20	9/22/2012 11:35		74:15		SFC controls.
October	F		10/17/2012 8:45	10/19/2012 13:06		52:21		GSU transformer.
	F		10/19/2012 13:08	10/26/2012 11:21		166:13		GSU transformer.

Kentucky Utilities Company
E. W. Brown 6 - Gas CT - 146 MW (jointly owned with LG&E)
In-service August 1999
May 2012 through October 2012

				MAINTENANCE						
		Scheduled			Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH		FROM		TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	F				5/31/2012 21:21			2:39		Turbine exhaust bearing vibration.
June	F					6/2/2012 18:15		42:15		n n n n n
July		No Outages > or = 6 He	lours							
August	S	8/21/2	2012 5:35	8/21/2012 13:10	8/21/2012 5:35	8/21/2012 13:10	7:35		7:35	Oil vapor extractor filter replacement.
September	r S	9/24/2	2012 6:09	9/27/2012 13:06	9/24/2012 6:09	9/27/2012 13:06	78:57		78:57	Disturbance monitoring equipment installation.
October	S	10/1/2	2012 5:35	10/1/2012 19:08	10/1/2012 5:35	10/1/2012 19:08	13:33		13:33	Compressor wash.
	S	10/5/2	2012 5:30	10/5/2012 12:52	10/5/2012 5:30	10/5/2012 12:52	7:22		7:22	Gas flow meter calibration and vibration transducer replacement.

Kentucky Utilities Company
E. W. Brown 7 - Gas CT - 146 MW (jointly owned with LG&E)
In-service August 1999
May 2012 through October 2012

		MAINTENANCE								
		Scheduled		Actual			S OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR	
MONTH	F	ROM	TO	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE	
May	Νο Οι	stages > or = 6 Hours								
June	No O	stages > or = 6 Hours								
July	No O	stages > or = 6 Hours								
August	S	8/20/2012 8:15	8/20/2012 15:00	8/20/2012 8:15	8/20/2012 15:00	6:45		6:45	Oil vapor extractor filter replacement.	
September	F			9/2/2012 13:40	9/3/2012 11:57		22:17		Turbine pulsation sensors.	
October	S	10/2/2012 5:50	10/2/2012 14:00	10/2/2012 5:50	10/2/2012 14:00	8:10		8:10	Compressor wash.	
	s	10/13/2012 0:00	10/21/2012 15:00	10/12/2012 4:45	10/19/2012 8:55	207:00		172:10	Boroscope inspection and disturbance monitoring equipment installation.	

Kentucky Utilities Company E. W. Brown 8 - Gas CT - 102 MW In-service February 1995 May 2012 through October 2012

			MAINTENANCE						
		neduled		Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM		TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	F			5/4/2012 22:29	5/5/2012 16:48		18:19		Fire detection and extinguishing system.
June	S	6/5/2012 5:00	6/7/2012 16:58	6/5/2012 5:00	6/7/2012 16:58	59:58		59:58	Boroscope inspection.
July	No Outages >	or = 6 Hours							
August	No Outages >	or = 6 Hours							
September	S	9/24/2012 7:42	9/24/2012 15:11	9/24/2012 7:42	9/24/2012 15:11	7:29		7:29	Compressor wash.
October	No Outages >	or = 6 Hours							

Kentucky Utilities Company E. W. Brown 9 - Gas CT - 102 MW In-service January 1995 May 2012 through October 2012

		MAINTENANCE							
	Sch	eduled		Actual		HOURS	OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM		TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No Outages >	or = 6 Hours							
June	S	6/14/2012 5:52	6/14/2012 13:44	6/14/2012 5:52	6/14/2012 13:44	7:52		7:52	Lube oil pump motor replacement.
July	No Outages >	or = 6 Hours							
August	No Outages >	or = 6 Hours							
September	S	9/25/2012 5:59	9/25/2012 13:53	9/25/2012 5:59	9/25/2012 13:53	7:54		7:54	Compressor wash.
October	No Outages >	or = 6 Hours							

Kentucky Utilities Company E. W. Brown 10 - Gas CT - 102 MW In-service December 1995 May 2012 through October 2012 Schedule vs. Actual

			MAINTENANCE						
	I	Scheduled Actual				HOURS	OF DURA	NOITA	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MC	HTMC	FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE

May No Outages > or = 6 Hours

June No Outages > or = 6 Hours

July

September

October

No Outages > or = 6 Hours

August No Outages > or = 6 Hours

No Outages > or = 6 Hours

No Outages > or = 6 Hours

Kentucky Utilities Company E. W. Brown 11 - Gas CT - 102 MW In-service May 1996 May 2012 through October 2012

Schedule vs. Actual

	_	MAINTENAN	VCE					
	Scheduled		Actual		HOUR	S OF DURA	ATION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM TO FRO			TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No Outages > or = 6 Hours		****					
June	No Outages > or = 6 Hours							

July

No Outages > or = 6 Hours

August

No Outages > or = 6 Hours

September S

9/27/2012 5:02 9/27/

9/27/2012 14:00

9/27/2012 5:02 9/27/2012 14:00

8-58

8:58 Compressor wash.

October No Outages > or = 6 Hours

Kentucky Utilities Company Haefling 1 - Gas CT - 12 MW In-service October 1970 May 2012 through October 2012

			MAINTENANCE						
		Scheduled		Actual		HOUR	S OF DURA	ATION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
٨	HTMON	FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
Ma	у	No Outages > or = 6 Hours							
Jui	ne	No Outages > or = 6 Hours							
Jul	y	No Outages > or = 6 Hours							
Au	gust	No Outages > or = 6 Hours							
Se	ptember F			9/28/2012 12:07	-		59:53		Lube oil pressure switch.
Oc	tober F				10/2/2012 10:30)	34:30		0 0 0

Kentucky Utilities Company Haefling 2 - Gas CT - 12 MW In-service October 1970 May 2012 through October 2012

	T			MAINTENANCE						
			eduled		Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH		FROM		то	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	F				5/24/2012 12:49	5/25/2012 17:31		28:42		Lube oil temperature.
June	s		5/30/2012 8:15	-	5/30/2012 8:15		39:45		39:45	Lube oil coolers.
July	s			6/2/2012 14:10		6/2/2012 14:10	38:10		38:10	
August	ı	No Outages > o	or = 6 Hours							
September	١	No Outages > c	or = 6 Hours							
October	ı	No Outages > c	or = 6 Hours							

Kentucky Utilities Company Haefling 3 - Gas CT - 12 MW In-service October 1970 May 2012 through October 2012

	MAINTENANCE							
	Scheduled		Actual		HOURS	OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No Outages > or = 6 Hours							
June	No Outages > or = 6 Hours							
July	F		7/23/2012 12:18	7/24/2012 14:00)	25:42		Generator synchronization.
August	F		8/7/2012 10:15	8/28/2012 12:30)	506:15		Lube oil pump motor.
September	No Outages > or = 6 Hours							
October	No Outages > or = 6 Hours							

Kentucky Utilities Company Paddys Run Unit # 13 - Gas CT - 147 MW (jointly owned with LG&E) In-service June 2001 May 2012 through October 2012

				MAINTENANCE						
			duled		Actual			OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH		FROM		ТО	FROM	ТО	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	s		5/14/2012 6:30	5/19/2012 8:35	5/14/2012 6:30	5/19/2012 8:35	122:05		122:05	Pipeline maintenance.
June	S		6/11/2012 6:28	6/16/2012 7:53	6/11/2012 6:28	6/16/2012 7:53	121:25		121:25	Gas line maintenance.
	F				6/28/2012 12:20			59:40		Static frequency converter.
July	F					7/4/2012 10:09		82:09		в в
	S		7/21/2012 6:28	7/21/2012 19:00	7/21/2012 6:28	7/21/2012 19:00	12:32		12:32	Gas line maintenance.
	F				7/23/2012 20:46	7/24/2012 14:30		17:44		Gas compressor relays.
August	S		8/11/2012 5:45	8/11/2012 16:23	8/11/2012 5:45	8/11/2012 16:23	10:38		10:38	Gas line maintenance.
	S		8/18/2012 6:23	8/18/2012 20:22	8/18/2012 6:23	8/18/2012 20:22	13:59		13:59	Gas line maintenance.
	s		8/18/2012 21:59	8/19/2012 13:50	8/18/2012 21:59	8/19/2012 13:50	15:51		15:51	Gas line maintenance.
September	r N	lo outages > or	r = 6 hours							
October	s		10/13/2012 0:00	10/21/2012 15:00	10/15/2012 6:30	10/21/2012 13:45	207:00		151:15	Generator inspection.

Kentucky Utilities Company Trimble County Unit #5 - Gas CT - 157 MW (jointly owned with LG&E) In-service May 2002 May 2012 through October 2012

No outages > or = 6 hours

October

		MAINTENANCE						
	Scheduled		Actual			S OF DURA		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No outages > or = 6 hours							
June	No outages > or = 6 hours							
July	No outages > or = 6 hours							
August F	=		8/7/2012 8:52	8/8/2012 0:00		15:08		Switchyard transformer.
F	=		8/8/2012 0:00	8/8/2012 12:03		12:03		Switchyard transformer.
F	-		8/17/2012 4:44	8/17/2012 18:20		13:36		Switchyard switchgear.
September S	9/29/2012 3:00	9/30/2012 19:38	9/29/2012 3:00	9/30/2012 19:38	40:38		40:38	Cooling water system.

Kentucky Utilities Company Trimble County Unit #6 - Gas CT - 157 MW (jointly owned with LG&E) In-service May 2002 May 2012 through October 2012

			MAINTENANCE						
		eduled		Actual		HOURS	OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	<u> </u>	TO	FROM	то	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	F			5/24/2012 12:08	5/24/2012 22:53		10:45		Inlet guide vane control oil leak.
June	No outages > o	r = 6 hours							
July	No outages > o	r = 6 hours							
August	F			8/7/2012 8:52	8/8/2012 0:00		15:08		Switchyard transformer.
	F			8/8/2012 0:00	8/8/2012 16:12		16:12		Switchyard transformer.
	F			8/17/2012 4:44	8/18/2012 6:51		26:07		Switchyard switchgear.
September	S	9/28/2012 6:15	9/30/2012 19:24	9/28/2012 6:15	9/30/2012 19:24	61:09		61:09	Cooling water system.
October	S	10/8/2012 7:00	10/10/2012 13:47	10/8/2012 7:00	10/10/2012 13:47	54:47		54:47	Disturbance monitoring equipment installation.

Kentucky Utilities Company Trimble County Unit #7 - Gas CT - 157 MW (jointly owned with LG&E) In-service June 2004 May 2012 through October 2012

			MAINTENANCE						
		Scheduled		Actual		HOUR	S OF DURA	TION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH		FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	S		5/27/2012 15:00		5/26/2012 7:07	639:00		607:07	Hot gas path inspection.
June	s	6/17/2012 4:30	6/17/2012 13:43	6/17/2012 4:30	6/17/2012 13:43	9:13		9:13	Generator vibration.
July	s	7/24/2012 20:40	7/25/2012 4:04	7/24/2012 20:40	7/25/2012 4:04	7:24		7:24	Exhaust frame blower.
August	F			8/7/2012 8:52	8/8/2012 0:00		15:08		Switchyard transformer.
	F			8/8/2012 0:00	8/9/2012 18:40		42:40		Switchyard transformer.
	F			8/17/2012 4:44	8/18/2012 17:33		36:49		Switchyard switchgear.

September No outages > or = 6 hours

October

Kentucky Utilities Company Trimble County Unit #8 - Gas CT - 157 MW (jointly owned with LG&E) In-service June 2004 May 2012 through October 2012

Į.		MAINTENANCE							
	Sch	Scheduled		Actual		HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM		TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No outages > 0	or = 6 hours							
June	No outages >	or = 6 hours							
July	No outages >	or = 6 hours							
August	F			8/7/2012 8:52	8/7/2012 22:23		13:31		Switchyard transformer.
	F			8/17/2012 4:44	8/17/2012 14:40		9:56		Switchyard switchgear.
September No outages > or = 6 hours									
October	S	10/23/2012 4:00	10/25/2012 12:09	10/23/2012 4:00	10/25/2012 12:09	56:09		56:09	Disturbance monitoring equipment installation.
	S	10/26/2012 3:30	10/26/2012 11:17	10/26/2012 3:30	10/26/2012 11:17	7:47		7:47	Switchyard power circuit breaker maintenance.

Kentucky Utilities Company Trimble County Unit #9 - Gas CT - 157 MW (jointly owned with LG&E) In-service July 2004 May 2012 through October 2012

1	Scheduled		Actual		HOURS OF DURATION			REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM	TO	FROM	TO	Scheduled	Forced	Actual	FORCED OUTAGE AS APPROPRIATE
May	No outages > or = 6 hours							
June	No outages > or = 6 hours							
July	No outages > or = 6 hours							
August	F		8/7/2012 8:52	8/7/2012 22:23		13:31		Switchyard transformer.
	F		8/17/2012 4:44	8/19/2012 12:28		55:44		Switchyard switchgear.
September	F		9/7/2012 9:28	9/7/2012 16:18		6:50		Motor control center.
	S 9/8/2012 0:00		9/7/2012 21:20		552:00		554:40	Hot gas path inspection.
October	s ——				744:00		744:00	N N N

Kentucky Utilities Company Trimble County Unit #10 - Gas CT - 157 MW (jointly owned with LG&E) In-service July 2004 May 2012 through October 2012

	MAINTENANCE								
		reduled	ed		Actual		OF DURATION	ON	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE OR REASON FOR
MONTH	FROM		TO	FROM	TO	Scheduled	Forced /	Actual	FORCED OUTAGE AS APPROPRIATE
May	No outages >	or = 6 hours							
June	No outages >	or = 6 hours							
July	F			7/18/2012 10:11	7/18/2012 21:22		11:11		Starting system switch.
August	F			8/7/2012 8:52	8/7/2012 21:19		12:27		Switchyard transformer.
	F			8/17/2012 4:44	8/17/2012 13:52		9:08		Switchyard switchgear.
September No outages > or = 6 hours									
October	S	10/11/2012 3:00	10/13/2012 12:45	10/11/2012 3:00	10/13/2012 12:45	57:45	!	57:45	Disturbance monitoring equipment installation.
	S	10/23/2012 4:00	10/23/2012 12:35	10/23/2012 4:00	10/23/2012 12:35	8:35		8:35	Switchyard power circuit breaker.
	S	10/26/2012 3:30	10/26/2012 11:17	10/26/2012 3:30	10/26/2012 11:17	7:47		7:47	Switchyard power circuit breaker.



KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 15

Witness: Mike Dotson

- Q-15. For each existing fuel contract categorized as long-term (i.e., one year or more in length), provide:
 - a. Supplier's name and address;
 - b. Name and location of production facility;
 - c. Date when contract was executed;
 - d. Duration of contract;
 - e. Date(s) of each contract revision, modification, or amendment;
 - f. Annual tonnage requirements;
 - g. Actual annual tonnage received since the contract's inception;
 - h. Percent of annual requirements received during the contract's term;
 - i. Base price in dollars per ton;
 - j. Total amount of price escalations to date in dollars per ton; and
 - k. Current price paid for coal under the contract in dollars per ton (i.+j).
- A-15. See attached.

A. NAME/ADDRESS: Alliance Coal, LLC / J09002

1717 South Boulder Av., Suite 400 Tulsa, Oklahoma 74119-4886

B. PRODUCTION FACILITY:

OPERATOR River View Coal, LLC MINE River View Mine

LOCATION Union County, Kentucky

C. CONTRACT EXECUTED DATE: November 10, 2008

D. CONTRACT DURATION: November 3, 2008 – December 31, 2015

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2010 969,072 tons

REQUIREMENTS: (includes FM of 30,928 tons)

2011 2,000,000 tons 2012 2,000,000 tons 2013 2,000,000 tons 2014 2,000,000 tons 2015 2,000,000 tons

G. ACTUAL TONNAGE LG&E KU

RECEIVED: 2010 525,414 tons 443,658 tons 771,648 tons

2011 1,177,540 tons 771,648 tons 2012 1,540,697 tons 160,105 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2010 100%

REQUIREMENTS: 2011 97%

2012 85% (through 10/31/12)

I. BASE PRICE (FOB Barge): October 1, 2012 \$41.00 per ton

J. ESCALATIONS TO DATE: \$9.72 per ton

K. CURRENT CONTRACT PRICE: \$50.72 per ton

A. NAME/ADDRESS: Alliance Coal, LLC / J12007

1717 South Boulder Av., Suite 400 Tulsa, Oklahoma 74119-4886

B. PRODUCTION FACILITY:

OPERATOR Hopkins County Coal, Warrior Coal and Webster

County Coal

MINE Seller's Mines

LOCATION Western Kentucky

C. CONTRACT EXECUTED DATE: December 9, 2011

D. CONTRACT DURATION: January 1, 2012 – December 31, 2016

E. CONTRACT AMENDMENTS: Amendment No. 1, effective January 1, 2013

Amending pricing.

F. ANNUAL TONNAGE 2012 3,000,000 tons REQUIREMENTS: 2013 3,000,000 tons

2014 3,000,000 tons 2015 3,000,000 tons 2015 3,000,000 tons 2016 3,000,000 tons

G. ACTUAL TONNAGE LG&E KU

RECEIVED: 2012 2,471,838 tons 14,326 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2012 83% (through 10/31/12)

REQUIREMENTS:

I. BASE PRICE (FOB Railcar): 2012 - \$47.00 per ton FOB Railcar

2013 - \$48.00 per ton FOB Railcar 2014 - Pricing for 1.5 Million tons \$49.00 per ton FOB Railcar

Pricing for remaining 1.5 Million tons

to be negotiated

J. ESCALATIONS TO DATE: None

K. CURRENT CONTRACT PRICE: \$47.00 per ton

A. NAME/ADDRESS: Armstrong Coal Company, Inc / J07032

407 Brown Road

Madisonville, Kentucky 42431

B. PRODUCTION FACILITY:

OPERATOR Armstrong Coal Company, Inc

MINES Various

LOCATION Muhlenberg County and Ohio County,

Kentucky

C. CONTRACT EXECUTED DATE: December 20, 2007

D. CONTRACT DURATION: January 1, 2008 - December 31, 2016

E. CONTRACT AMENDMENTS: Amendment No. 1, effective July 1, 2008

amending base quantity and modifying diesel fuel adjustment to include explosives. Amendment No. 2, effective December 22, 2009

amending term, base quantity, price and

environmental force majeure.

F. ANNUAL TONNAGE 2008 600,000 tons REQUIREMENTS: 2009 2,200,000 tons

2010 1,800,000 tons

2011 through 2015 - 2,100,000 tons per year

2016 900,000 tons

G. ACTUAL TONNAGE: <u>LG&E</u> <u>KU</u>

RECEIVED: 2008 511,414 tons 82,623 tons

 2009
 1,530,482 tons
 632,077 tons

 2010
 1,180,206 tons
 657,930 tons

 2011
 993,296 tons
 877,219 tons

 2012
 791,954 tons
 919,064 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2008 99%

REQUIREMENTS: 2009 98%

2010 102% 2011 89%

2012 81% (through 10/31/12)

I. BASE PRICE (FOB Barge) 2008 Quality 1 - \$27.31 per ton

Quality 2 - \$28.30 per ton

2009 Quality 1 - \$27.60 per ton

Attachment to Response to Question No. 15 Page 4 of 19 Dotson

2010	Quality 2 - \$28.76 per ton Quality 1 - \$28.18 per ton Quality 2 - N/A
2011	Quality 1 - \$28.19 per ton Quality 2 - \$29.61 per ton

J. ESCALATIONS TO DATE:

\$0.82 per ton

I. CURRENT CONTRACT PRICE:

Quality 1 - \$29.17 per ton

A. NAME/ADDRESS: Armstrong Coal Company, Inc / J10009

407 Brown Road

Madisonville, Kentucky 42431

B. PRODUCTION FACILITY:

OPERATOR Armstrong Coal Company, Inc

MINES Various

LOCATION Muhlenberg County and Ohio County,

Kentucky

C. CONTRACT EXECUTED DATE: December 22, 2009

D. CONTRACT DURATION: January 1, 2011 - December 31, 2016

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2011 1,250,000 tons REQUIREMENTS: 2012 1,250,000 tons 2013 1,250,000 tons

2013 1,250,000 tons 2014 750,000 tons 2015 750,000 tons 2016 750,000 tons

G. ACTUAL TONNAGE: <u>LG&E</u> <u>KU</u>

RECEIVED: 2011 565,386 tons 585,065 tons

2012 513,656 tons 530,222 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2011 92%

REQUIREMENTS: 2012 84% (through 10/31/12)

I. BASE PRICE (FOB Barge) 2011 \$42.00 per ton

2012 \$43.50 per ton 2013 \$45.00 per ton

J. ESCALATIONS TO DATE: \$2.88 per ton

I. CURRENT CONTRACT PRICE: \$46.38 per ton

A. NAME/ADDRESS: Armstrong Coal Company, Inc / K11002

407 Brown Road

Madisonville, Kentucky 42431

B. PRODUCTION FACILITY:

OPERATOR Armstrong Coal Company, Inc

MINES Various

LOCATION Muhlenberg County and Ohio County,

Kentucky

C. CONTRACT EXECUTED DATE: July 27, 2010

D. CONTRACT DURATION: January 1, 2011 - December 31, 2013

E. CONTRACT AMENDMENTS: Amendment No. 1, effective January 1, 2012

amending base quantity.

Amendment No. 2, effective January 1, 2012

amending base quantity.

F. ANNUAL TONNAGE 2011 150,000 tons REQUIREMENTS: 2012 360,000 tons

2013 200,000 tons

G. ACTUAL TONNAGE: <u>KU</u>

RECEIVED: 2011 150,473 tons

2012 304,367 (through 10/31/12)

H. PERCENT OF ANNUAL 2011 100%

REQUIREMENTS: 2012 85% (through 10/31/12)

I. BASE PRICE (FOB Plant) 2011 \$56.00 per ton

2012 \$57.00 per ton2013 \$59.25 per ton

J. ESCALATIONS TO DATE: \$0.65 per ton

I. CURRENT CONTRACT PRICE: \$57.65 per ton

A. NAME/ADDRESS: Armstrong Coal Company, Inc / J12004

407 Brown Road

Madisonville, Kentucky 42431

B. PRODUCTION FACILITY:

OPERATOR Armstrong Coal Company, Inc

MINES Various

LOCATION Muhlenberg County and Ohio County,

Kentucky

C. CONTRACT EXECUTED DATE: September 19, 2011

D. CONTRACT DURATION: January 1, 2012 - December 31, 2015

E. CONTRACT AMENDMENTS: Amendment No. 1, effective January 1, 2012

amending base quantity.

Amendment No. 2, effective January 1, 2012

amending base quantity.

F. ANNUAL TONNAGE 2012 340,000 tons REQUIREMENTS: 2013 500,000 tons 2014 1,000,000 tons

2014 1,000,000 tons 2015 1,000,000 tons

G. ACTUAL TONNAGE: <u>LG&E</u> <u>KU</u>

RECEIVED: 2012 290,907 tons 0 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2012 86% (through 10/31/12)

REQUIREMENTS:

I. BASE PRICE (FOB Railcar/Barge) 2012 \$45.00 per ton

2013 \$46.00 per ton2014 \$48.00 per ton2015 \$49.00 per ton

J. ESCALATIONS TO DATE: \$2.29 per ton

I. CURRENT CONTRACT PRICE: \$47.29 per ton

Attachment to Response to Question No. 15 Page 8 of 19 Dotson

A. NAME/ADDRESS: Foresight Coal Sales, LLC / J12005

211 North Broadway, Suite 2600

St. Louis, Missouri 63102

B. PRODUCTION FACILITY:

OPERATOR: Macoupin Energy, LLC

Sugar Camp Energy, LLC

MINES: Shay Mine No. 1

Deer Run Mine

Sugarcamp Mine

LOCATION: Macoupin, Montgomery and Franklin Counties,

Illinois

C. CONTRACT EXECUTED DATE: March 14, 2012

D. CONTRACT DURATION: April 1, 2012 - December 31, 2013

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2012 500,000 tons REQUIREMENTS 2013 1,000,000 tons

2014 Reopener

G. ACTUAL TONNAGE: KU LGE

RECEIVED: 2012 233,895 tons 141,182 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2012 75% (through 10/31/12)

REQUIREMENTS:

imponentis.

J. ESCALATIONS TO DATE:

I. BASE PRICE: (FOB Barge) 2012 \$46.00 per ton

2013 \$48.50 per ton

2014 Reopener 2015 Reopener

None

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K. CURRENT CONTRACT PRICE: \$46.00 per ton

A. NAME/ADDRESS: Oxford Mining Company – Kentucky, LLC

(contract acquired on 9/30/09 from Charolais Coal

Sales, LLC) / J07003 544 Chestnut Street Coshocton, Ohio 43812

B. PRODUCTION FACILITY:

RECEIVED:

OPERATOR Charolais Coal No.1, LLC & Charolais Coal

Resources, LLC

MINE Vogue West & Rock Crusher Mines LOCATION Muhlenberg County, Kentucky

C. CONTRACT EXECUTED DATE: December 21, 2006

D. CONTRACT DURATION: January 1, 2007 – December 31, 2011

E. CONTRACT AMENDMENTS: Contract assigned from Phoenix Coal Corp. &

Charolais Coal Sales, LLC effective October 1, 2009. Amendment No. 1, dated effective October 1, 2009; term extended to December 31, 2011. Yearly base quantity amended. Amendment No. 1, dated April 15, 2011. Term extended to December

31, 2012. Yearly base quantity amended.

F. ANNUAL TONNAGE	2007	591,172 tons
REQUIREMENTS:	2008	464,372 tons

2008 404,372 tons 2009 791,336 tons 2010 642,576 tons

2011 673,197 tons 2012 250,000 tons

G. ACTUAL TONNAGE <u>KU</u> <u>LGE</u>

361,950 tons 229,223 tons 2007 384,389 tons 79,983 tons 2008 598,474 tons 192,863 tons 2009 2010 367,542 tons 275,035 tons 300,984 tons 249,041 tons 2011 298,627 tons 13,801 tons 2012

(through 10/31/12)

H. PERCENT OF ANNUAL 2007 100%

REQUIREMENTS: 2008 100%

2009 100% 2010 100% 2011 82%

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2012 125% (through 10/31/12)

I. BASE PRICE (FOB Barge): 2007 \$32.20 per ton

2008 \$32.75 per ton 2009 \$34.10 per ton 2010 \$36.10 per ton

J. ESCALATIONS TO DATE: None

K. CURRENT CONTRACT PRICE: \$36.10 per ton

Attachment to Response to Question No. 15 Page 11 of 19 Dotson

A. NAME/ADDRESS: Oxford Mining Company – Kentucky, LLC /

J12003

544 Chestnut Street Coshocton, Ohio 43812

B. PRODUCTION FACILITY:

OPERATOR Oxford Mining Company – Kentucky, LLC MINE Briar Hill, Rose France and KO Mines

LOCATION Muhlenberg County, Kentucky

C. CONTRACT EXECUTED DATE: September 12, 2011

D. CONTRACT DURATION: January 1, 2012 – December 31, 2013

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2012 400,000 tons REQUIREMENTS: 2013 600,000 tons

G. ACTUAL TONNAGE <u>KU</u> <u>LGE</u>

RECEIVED: 2012 210,562 tons 120,112 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2012 83% through (10/31/12)

REQUIREMENTS:

I. BASE PRICE (FOB Barge): 2012 \$46.50 per ton

2013 \$47.50 per ton

J. ESCALATIONS TO DATE: \$2.07 per ton

K. CURRENT CONTRACT PRICE: \$48.57 per ton

A. NAME/ADDRESS:

Patriot Coal Sales, LLC / K11001 12312 Olive Boulevard, Suite 400 St. Louis, Missouri 63141

B. PRODUCTION FACILITY:

OPERATOR

MINE

LOCATION

Dodge Hill Mining Company, LLC

Dodge Hill

Union County, Kentucky

C. CONTRACT EXECUTED DATE:

September 17, 2010

D. CONTRACT DURATION:

January 1, 2011 - December 31, 2013

E. CONTRACT AMENDMENTS:

Amendment No. 1, effective January 1, 2013. Add

for 2013 – 120,000 tons at Delivered Price of

\$59.60 per ton.

F. ANNUAL TONNAGE REQUIREMENTS:

2011 220,000 tons 120,000 tons 2012 2013 120,000 tons

G. ACTUAL TONNAGE

RECEIVED:

<u>KU</u>

LG&E

2011 196,176 tons

2012 104,383 tons

13,898 tons

(through 10/31/12)

H. PERCENT OF ANNUAL

REQUIREMENTS:

2011 89%

2012 99% (through 10/31/12)

I. BASE PRICE (FOB Plant):

\$63.32 per ton 2011 \$63.32 per ton 2012 \$59.60 per ton 2013

J. ESCALATIONS TO DATE:

\$0.65 per ton

K. CURRENT CONTRACT PRICE:

\$63.97 per ton

A. NAME/ADDRESS: Patriot Coal Sales, LLC / J12001

12312 Olive Boulevard, Suite 400

St. Louis, Missouri 63141

B. PRODUCTION FACILITY:

OPERATOR Patriot Coal, Ohio County Coal and Highland

Mining Company, LLC

MINE Patriot, Freedom and Highland Mines LOCATION Henderson and Union Counties, Kentucky

C. CONTRACT EXECUTED DATE: April 29, 2011

D. CONTRACT DURATION: January 1, 2012 - December 31, 2013

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2012 1,250,000 tons REQUIREMENTS: 2013 1,250,000 tons

G. ACTUAL TONNAGE <u>LG&E</u> <u>KU</u>

RECEIVED: 2012 165,672 tons 879,851 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2012 84% (through 10/31/12)

REQUIREMENTS:

I. BASE PRICE (FOB Barge): 2012 \$46.25 per ton – Quality 1

2012 \$49.50 per ton - Quality 2
2013 \$46.25 per ton - Quality 1
2013 \$49.50 per ton - Quality 2

J. ESCALATIONS TO DATE: None

K. CURRENT CONTRACT PRICE: \$46.25 per ton – Quality 1

\$49.50 per ton – Quality 2

A. NAME/ADDRESS:

Peabody COALSALES, LLC / J12011

701 Market Street

St. Louis, Missouri 63101

B. PRODUCTION FACILITY:

OPERATOR

Peabody Midwest Mining, LLC Peabody Wild Boar Mining, LLC

Somerville Mine Complex

Wild Boar

LOCATION

MINE

Warrick & Gibson Counties, Indiana

C. CONTRACT EXECUTED DATE:

December 29, 2011

D. CONTRACT DURATION:

January 1, 2012 – December 31, 2014

E. CONTRACT AMENDMENTS:

None

F. ANNUAL TONNAGE

REQUIREMENTS:

2012 1,500,000 tons 2013 1,500,000 tons

2014 1,500,000 tons

G. ACTUAL TONNAGE

RECEIVED:

KU

LGE

2012 801,725 tons

478,168 tons

(through 10/31/12)

H. PERCENT OF ANNUAL

REQUIREMENTS:

2012

85% (through 10/31/12)

I. BASE PRICE: 2012 \$49.90 per ton – FOB Barge Evansville

\$49.11 per ton – FOB Barge Warrick Co.

\$44.50 per ton – FOB Railcar

\$52.15 per ton – FOB Barge Evansville 2013

\$51.36 per ton – FOB Barge Warrick Co.

\$46.75 per ton – FOB Railcar

2014 \$54.15 per ton – FOB Barge Evansville

\$53.36 per ton – FOB Barge Warrick Co.

\$48.75 per ton – FOB Railcar

J. ESCALATIONS TO DATE:

\$2.13 per ton – FOB Barge Evansville

\$2.40 per ton – FOB Warrick Co.

\$2.01 per ton – FOB Railcar

Attachment to Response to Question No. 15 Page 15 of 19 Dotson

K. CURRENT CONTRACT PRICE:

\$52.03 per ton – FOB Barge Evansville \$51.51 per ton – FOB Barge Warrick Co. \$46.51 per ton – FOB Railcar

A. NAME/ADDRESS: Rhino Energy, LLC / J08028

3120 Wall Street, Suite 310 Lexington, Kentucky 40513

B. PRODUCTION FACILITY:

OPERATOR Sands Hill Coal Company

MINE Sands Hill Mine

LOCATION Jackson and Vinton Counties, Ohio

C. CONTRACT EXECUTED DATE: July 13, 2008

D. CONTRACT DURATION: July 1, 2008 – December 31, 2012

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2008 90,000 tons REQUIREMENTS: 2009 360,000 tons 2010 360,000 tons

2011 360,000 tons 2012 360,000 tons

G. ACTUAL TONNAGE <u>LG&E</u> <u>KU</u>

RECEIVED: 2008 31,033 tons 53,552 tons 2009 148,063 tons 218,005 tons 2010 118,375 tons 225,346 tons 2011 3,308 tons 363,798 tons

2012 116,288 tons 192,111 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2008 94% REQUIREMENTS: 2009 102%

2010 95% 2011 102%

2012 86% (through 10/31/12)

I. BASE PRICE (FOB Barge): 2008 \$49.25 per ton

2009 \$49.25 per ton
2010 \$50.25 per ton
2011 \$51.85 per ton
2012 \$53.40 per ton

J. ESCALATIONS TO DATE: -\$1.32 per ton

K. CURRENT CONTRACT PRICE: \$52.08 per ton

A. NAME/ADDRESS: Solar Sources, Inc. / J12010

6755 South Gray Road

Indianapolis, Indiana 46237

B. PRODUCTION FACILITY:

OPERATOR Solar Sources, Inc.

MINE Shamrock, Cannelburg, Charger & Antioch LOCATION Dubois, Pike and Daviess Counties, Indiana

C. CONTRACT EXECUTED DATE: December 19, 2011

D. CONTRACT DURATION: January 1, 2012 – December 31, 2013

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2012 300,000 tons REQUIREMENTS: 2013 400,000 tons

G. ACTUAL TONNAGE <u>KU</u> <u>LGE</u> RECEIVED: 2012 263,845 tons 0 tons

(through 10/31/12)

H. PERCENT OF ANNUAL 2012 88% (through 10/31/12)

REQUIREMENTS:

I. BASE PRICE (FOB Barge): 2012 \$49.00 per ton

2013 \$50.11 per ton

J. ESCALATIONS TO DATE: \$1.34 per ton

K. CURRENT CONTRACT PRICE: \$50.34 per ton

A. NAME/ADDRESS: Triad Mining, Inc. / J12009

1524 Frederica Street

Owensboro, Kentucky 42301

B. PRODUCTION FACILITY:

OPERATOR: Triad Mining, Inc.

MINES: Log Creek

LOCATION: Pike County, Indiana

C. CONTRACT EXECUTED DATE: December 19, 2011

D. CONTRACT DURATION: January 1, 2012 - December 31, 2014

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2012 700,000 tons REQUIREMENTS: 2013 700,000 tons

2014 700,000 tons

G. ACTUAL TONNAGE: <u>KU</u> <u>LGE</u>

RECEIVED: 2012 589,551 tons 0 tons

(through 10/31/12)

H. PERCENT OF ANNUAL

REQUIREMENTS: 2012 84% (through 10/31/12)

I. BASE PRICE: (FOB Railcar) 2012 \$45.50 per ton

2013 \$47.50 per ton2014 \$49.00 per ton

J. ESCALATIONS TO DATE: -\$0.48 per ton

K. CURRENT CONTRACT PRICE: \$45.02 per ton

A. NAME/ADDRESS: Western Kentucky Minerals, Inc. / J10001

P.O. Box 155

Philpot, Kentucky 42366

B. PRODUCTION FACILITY:

OPERATOR: Western Kentucky Minerals, Inc. MINES: Joe's Run and Sun Energy Mines

LOCATION: Daviess County, Kentucky and Pike County,

Indiana

C. CONTRACT EXECUTED DATE: December 8, 2009

D. CONTRACT DURATION: April 1, 2010 - December 31, 2012

E. CONTRACT AMENDMENTS: None

F. ANNUAL TONNAGE 2010 253,300 tons REQUIREMENTS: 2011 403,300 tons

2012 403,300 tons

G. ACTUAL TONNAGE: <u>KU</u> <u>LGE</u>

RECEIVED: 2010 141,289 tons 98,507 tons 2011 282,894 tons 116,528 tons

2012 176,256 tons 177,628 tons

(through 10/31/12)

H. PERCENT OF ANNUAL

REQUIREMENTS: 2010 95%

2011 99%

2012 88% (through 10/31/12)

I. BASE PRICE: (FOB Barge) 2010 \$48.35 per ton

2011 \$48.35 per ton

2012 \$48.35 per ton

J. ESCALATIONS TO DATE: \$21.201 per ton

K. CURRENT CONTRACT PRICE: \$69.551 per ton

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 16

Witness: Robert M. Conroy

Q-16. Provide a schedule of the present and proposed rates that KU seeks to change pursuant to 807 KAR 5:056, shown in comparative form.

A-16. See attached.

Kentucky Utilities Revised Tariffs

Tariff Sheet No. 5	Rate Schedule RS	Existing Base Rate Energy, Fuel and ECR \$ 0.0723:	Component of Base Rates	Existing Base Rate Excluding Fuel Base \$ 0.04567	Revised Fuel Component of Base Rates \$ 0.02892	Revised Base Rates including Fuel and ECR \$ 0.07459
7	VFD	0.0723	0.02668	0.04567	0.02892	0.07459
10	GS	0.0857	0.02668	0.05907	0.02892	0.08799
12	AES	0.0692	0.02668	0.04260	0.02892	0.07152
15	PS Secondary Primary	0.03340 0.03331		0.00672 0.00670	0.02892 0.02892	0.03564 0.03562
20	TODS	0.0354	0.02668	0.00881	0.02892	0.03773
22	TODP	0.0354	0.02668	0.00873	0.02892	0.03765
25	RTS	0.03410	0.02668	0.00742	0.02892	0.03634
30	FLS Primary Transmission	0.03419 0.0303		0.00751 0.00369	0.02892 0.02892	0.03643 0.03261
37	LE	0.0587	0.02668	0.03203	0.02892	0.06095
38	TE	0.07469	0.02668	0.04801	0.02892	0.07693
79	LEV Off Peak Hours Intermediate Hours Peak Hours	0.05078 0.0725/ 0.13788	0.02668	0.02410 0.04586 0.11120	0.02892 0.02892 0.02892	0.05302 0.07478 0.14012

LIGHTING SCHEDULES; ALL RATES PER UNIT PER MONTH

Page	Sc	hedule			Kwh per year	Fuel Factor Increase \$/kWh 0.00224	Annual Increase per year	Monthly Increase	Exis		riff Re	vised
35	LS	Light	ing Service									
		Overhead	Service									
		Rate	Type of Fixture	Approximate	kW Per Light							
			sure Sodium	Lumens	kw Per Light							
			Cobra Head Cobra Head	5,800 5,800	0.083 0.083	332 kWh/year 332 kWh/year	0.74 0.74	0.06 0.06	\$	8.21 11.15	\$	8.27 11.21
		463	Cobra Head	9,500	0.117	468 kWh/year	1.05	0.09		8.74		8.83
			Cobra Head Cobra Head	9,500 22,000	0.117 0.242	468 kWh/year 968 kWh/year	1.05 2.17	0.09 0.18		11.90 13.55		11.99 13.73
		474	Cobra Head	22,000	0.242	968 kWh/year	2.17	0.18		16.71		16.89
			Cobra Head Cobra Head	50,000 50,000	0.471 0.471	1,884 kWh/year 1,884 kWh/year	4.22 4.22	0.35 0.35		21.78 23.40		22.13 23.75
		487	Directional	9,500	0.117	468 kWh/year	1.05	0.09		8.60		8.69
		488 489	Directional Directional	22,000 50,000	0.242 0.471	968 kWh/year 1,884 kWh/year	2.17 4.22	0.18 0.35		12.94 18.40		13.12 18.75
		428	Open Bottom	9,500	0.117	468 kWh/year	1.05	0.09		7.44		7.53
			•	7,500	0.117	400 K 11 15 Year	1.03	0.02		,,		7.55
		Metal Hal 450	iae Directional	12,000	0.150	600 kWh/year	1.34	0.11		13.55		13.66
			Directional	32,000	0.350	1,400 kWh/year	3.14	0.26		19.18		19.44
25.1			Directional	107,800	1.080	4,320 kWh/year	9.68	0.81		40.00		40.81
35.1	LS		ing Service									
		Rate	ınd Service	Approximate								
			Type of Fixture sure Sodium	Lumens	kW Per Light							
		467	Colonial Colonial	5,800 9,500	0.083 0.117	332 kWh/year 468 kWh/year	0.74 1.05	0.06 0.09	\$	10.32 10.76	\$	10.38 10.85
		401	Acorn	5,800	0.083	332 kWh/year	0.74	0.06		14.41		14.47
			Acorn Acorn	5,800 9,500	0.083 0.117	332 kWh/year 468 kWh/year	0.74 1.05	0.06 0.09		20.93 14.96		20.99 15.05
			Acorn	9,500	0.117	468 kWh/year	1.05	0.09		21.60		21.69
			Victorian Victorian	5,800 9,500	0.083 0.117	332 kWh/year 468 kWh/year	0.74 1.05	0.06 0.09		30.39 30.82		30.45 30.91
			Contemporary	5,800	0.083	332 kWh/year	0.74	0.06		14.92		14.98
			Contemporary Contemporary	5,800 9,500	0.083 0.117	332 kWh/year 468 kWh/year	0.74 1.05	0.06 0.09		16.34 14.95		16.40 15.04
		477	Contemporary	9,500	0.117	468 kWh/year	1.05	0.09		20.57		20.66
		498 478	Contemporary Contemporary	22,000 22,000	0.242 0.242	968 kWh/year 968 kWh/year	2.17 2.17	0.18 0.18		17.02 26.16		17.20 26.34
		499	Contemporary	50,000	0.471	1,884 kWh/year	4.22	0.35		20.43		20.78
		479	Contemporary	50,000	0.471	1,884 kWh/year	4.22	0.35		32.06		32.41
			Dark Sky Dark Sky	4,000 9,500	0.060 0.117	240 kWh/year 468 kWh/year	0.54 1.05	0.04 0.09	\$	22.15 23.10	\$	22.19 23.19
35.2	LS	Lighti	ng Service									
			and Service									
		Rate Code	Type of Fixture	Approximate Lumens	kW Per Light							
		High Press	sure Sodium									
		360	Granville	1,600	0.181	724 kWh/year	1.62	0.14		53.01		53.15
			Granville Acces Twin Crossarm		udes 1 fixture)		_	_		20.57		20.57
			24 Inch Banner	Arm	- 440 1 111114119)		-	-		3.21		3.21
			24 Inch Clamp I 18 Inch Banner				-	-		4.43 2.95		4.43 2.95
			18 Inch Clamp l	Banner Arm			-	-		3.66		3.66
			Flagpole Holder Post-Mounted F				-	-		1.36 19.19		1.36 19.19
			Additional Post-		eptacle (Limit	1 per Pole)	-	-		2.62		2.62
			Planter Clamp-On Plant	ler			-	-		4.45 4.94		4.45 4.94
		Metal Hal	ide									
			Contemporary	12,000	0.150	600 kWh/year	1.34	0.11		14.77		14.88
			Contemporary Contemporary	12,000 32,000	0.150 0.350	600 kWh/year 1,400 kWh/year	1.34 3.14	0.11 0.26		27.67 20.91		27.78 21.17
		495 493	Contemporary Contemporary	32,000 107,800	0.350 1.080	1,400 kWh/year 4,320 kWh/year	3.14 9.68	0.26 0.81		33.81 43.35		34.07 44.16
			Contemporary	107,800	1.080	4,320 kWh/year	9.68	18.0		56.24		57.05

Attachment to Response to Question No. 16 Page 3 of 3 Conroy

LIGHTING SCHEDULES; ALL RATES PER UNIT PER MONTH

Page	Schedu	le		Kwh per year	Fuel Factor Increase \$/kWh 0.00224	Annual Increase per year	Monthly Increase	Exi	Ta sting	riff Re	evised
36	RLS	Restricted Lighting Service									
	Ove	rhead Service									
		Rate	Approximate								
		Code Type of Fixture	Lumens	kW Per Ligh	nt						
	Hig	h Pressure Sodium		J							
	·	461 Cobra Head	4,000	0.060	240 kWh/year	0.54	0.04		7.20		7.24
		471 Cobra Head	4,000	0.060	240 kWh/year	0.54	0.04		10.15		10.19
		409 Cobra Head	50,000	0.471	1,884 kWh/year	4.22	0.35		10.65		11.00
		426 Open Bottom	5,800	0.083	332 kWh/year	0.74	0.06		6.99		7.05
	Met	al Halide									
		454 Directional	12,000	0.150	600 kWh/year	1.34	0.11	\$	17.95	\$	18.06
		455 Directional	32,000	0.350	1,400 kWh/year	3.14	0.26		23.57		23.83
		459 Directional	107,800	1.080	4,320 kWh/year	9.68	0.81		44.39		45.20
	Mei	cury Vapor									
		446 Directional	7,000	0.207	828 kWh/year	1.85	0.15	\$	9.06	\$	9.21
		456 Directional	7,000	0.207	828 kWh/year	1.85	0.15		11.37		11.52
		447 Directional	10,000	0.294	1,176 kWh/year	2.63	0.22		10.70		10.92
		457 Directional	10,000	0.294	1,176 kWh/year	2.63	0.22		12.74		12.96
		448 Directional	20,000	0.453	1,812 kWh/year	4.06	0.34		12.01		12.35
		458 Directional	20,000	0.453	1,812 kWh/year	4.06	0.34		14.28		14.62
		404 Open Bottom	7,000	0.207	828 kWh/year	1.85	0.15		10.07		10.22
36.1	RLS	Restricted Lighting Service									
	Ove	rhead Service (continued)									
		Rate	Approximate								
		Code Type of Fixture	Lumens	kW Per Ligh	ıt.						
	Inca	ndescent									
		421 Tear Drop	1,000	0.102	408 kWh/year	0.91	0.08		3.20		3.28
		422 Tear Drop	2,500	0.201	804 kWh/year	1.80	0.15		4.25		4.40
		424 Tear Drop	4,000	0.327	1,308 kWh/year	2.93	0.24		6.32		6.56
		434 Tear Drop	4,000	0.327	1,308 kWh/year	2.93	0.24		7.28		7.52
		425 Tear Drop	6,000	0.447	1,788 kWh/year	4.01	0.33		8.43		8.76
	Und	lerground Service									
		Rate	Approximate								
	Met	Code Type of Fixture al Halide	Lumens	kW Per Ligh	ıt						
	1.101	460 Directional	12,000	0.150	600 kWh/year	1.34	0.11		26.45		26.56
		469 Directional	32,000	0.350	1,400 kWh/year	3.14	0.26		32.08		32.34
		470 Directional	107,800	1.080	4,320 kWh/year	9.68	0.81		52.90		53.71
	Hig	h Pressure Sodium									
	6	440 Acorn	4,000	0.060	240 kWh/year	0.54	0.04		13.27		13.31
		410 Acorn	4,000	0.060	240 kWh/year	0.54	0.04		19.92		19.96
		466 Colonial	4,000	0.060	240 kWh/year	054	0.04		9.28		9.32
		412 Coach	5,800	0.083	332 kWh/year	0.74	0.06		30.39		30.45
		413 Coach	9,500	0.117	468 kWh/year	1.05	0.09		30.82		30.91
			-,-00								

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 17

Witness: Robert M. Conroy

Q-17. Provide a statement showing by cross-outs and italicized inserts all proposed changes in rates. A copy of the current tariff may be used.

A-17. See attached.

P.S.C. No. 16, Original Sheet No. 5

Standard Rate

RS RESIDENTIAL SERVICE

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Available for single phase delivery to single family residential service subject to the terms and conditions on Sheet No. 100 of this Tariff. Three phase service under this rate schedule is restricted to those customers being billed on this rate schedule as of July 1, 2004.

RATE

Basic Service Charge:

\$10.75 per month

Plus an Energy Charge of:

\$ <u>0.07459</u>, per kWh

Deleted: 0.07235

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause	Sheet No. 85
Demand Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91
Home Energy Assistance Program	Sheet No. 92

MINIMUM CHARGE

The Basic Service Charge shall be the minimum charge.

DUE DATE OF BILL

Customer's payment will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill.

LATE PAYMENT CHARGE

If full payment is not received by the due date of the bill, a 3% late payment charge will be assessed on the current month's charges. Beginning October 1, 2010, residential customers who receive a pledge for or notice of low income energy assistance from an authorized agency will not be assessed or required to pay a late payment charge for the bill for which the pledge or notice is received, nor will they be assessed or required to pay a late payment charge in any of the eleven (11) months following receipt of such pledge or notice.

TERMS AND CONDITIONS

Service will be furnished under Company's Terms and Conditions applicable hereto.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/

Edwin R. Staton, Vice President

State Regulation and Rates

Lexington, Kentucky

Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 7

Standard Rate

VFD

VOLUNTEER FIRE DEPARTMENT SERVICE

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Available for single-phase delivery, in accordance with the provisions of KRS 278.172, to any volunteer fire department qualifying for aid under KRS 95A.262. Service under this rate schedule is at the option of the customer with the customer determining whether service will be provided under this schedule or any other schedule applicable to this load.

DEFINITION

To be eligible for this rate a volunteer fire department is defined as:

- 1) having at least 12 members and a chief,
- 2) having at least one firefighting apparatus, and
- 3) half the members must be volunteers

RATE

Basic Service Charge:

\$10.75 per month

Plus an Energy Charge of:

\$ <u>0.07459</u> per kWh

Deleted: 0 07235

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with:

Fuel Adjustment Clause
Demand-Side Management Cost Recovery Mechanism
Environmental Cost Recovery Surcharge
Franchise Fee Rider
School Tax
Sheet No. 85
Sheet No. 87
Sheet No. 90
School Tax
Sheet No. 90

MINIMUM CHARGE

The Basic Service Charge shall be the minimum charge.

DUE DATE OF BILL

Customer's payment will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill.

LATE PAYMENT CHARGE

If full payment is not received by the due date of the bill, a 3% late payment charge will be assessed on the current month's charges.

TERMS AND CONDITIONS

Service will be furnished under Company's Terms and Conditions applicable hereto.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 10

Standard Rate

GS GENERAL SERVICE RATE

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

To general lighting and small power loads for secondary service.

Service under this schedule will be limited to customers whose 12-month-average monthly maximum loads do not exceed 50 kW. Existing customers with 12-month-average maximum monthly loads exceeding 50 kW who are receiving service under P.S.C. 13, Fourth Revision of Original Sheet No. 10 as of February 6, 2009, will continue to be served under this rate at their option. If Customer is taking service under this rate schedule and subsequently elects to take service under another rate schedule, Customer may not again take service under this rate schedule unless and until Customer meets the Availability requirements that would apply to a new customer.

RATE

Basic Service Charge:

\$20.00 per month for single-phase service \$35.00 per month for three-phase service

Plus an Energy Charge of:

\$ <u>0.08799</u> per kWh

Deleted: 0.08575

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause	Sheet No. 85
Demand-Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

DETERMINATION OF MAXIMUM LOAD

If Company determines based on Customer's usage history that Customer may be exceeding the maximum load permitted under Rate GS, Company may, at its discretion, equip Customer with a meter capable of measuring demand to determine Customer's continuing eligibility for Rate GS. If Customer is equipped with a demand-measuring meter, Customer's load will be measured and will be the average kW demand delivered to the customer during the 15-minute period of maximum use during the month.

MINIMUM CHARGE

The Basic Service Charge shall be the minimum charge.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 12

Standard Rate

AES ALL ELECTRIC SCHOOL

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Service under this rate is available for secondary and primary service to:

- (1) a complex of school buildings on a central campus,
- (2) an individual school building, or
- (3) an addition to an existing school building.

School buildings, as referred to herein, shall be defined as buildings used as classrooms, laboratories, gymnasiums, libraries, cafeterias, school related offices or for other bona fide school purposes by duly constituted school authorities of Kentucky. Served electrically by Kentucky Utilities Company, such energy requirements include, but are not limited to, lighting, heating, cooling, and water heating. School buildings not receiving every energy requirement electrically shall be separately metered from the above defined service and served under the applicable rate. Other fuels may be used as incidental to and for instructional laboratory and other miscellaneous purposes without affecting the availability of this rate.

At those locations where the school owns its distribution system and makes the service connections to the various buildings and/or load centers, Company shall be given the option of providing service by use of the existing Customer-owned distribution system, or of constructing its own facilities in accordance with the Company's Overhead Construction Standards. In any event, Company's investment in the facilities it provides may be limited to an amount not exceeding twice the estimated annual revenue from Customer's service. Should Company's investment in the facilities required to provide service to Customer exceed twice the revenue anticipated from the service to Customer and at Customer's option, Customer may make a contribution for the difference in the investment required in facilities necessary to provide service and twice the anticipated revenue, so as to receive service under this schedule.

This Rate Schedule is not available to privately operated kindergartens or daycare centers and is restricted to those customers who were qualified for and being served on Rate AES as of July 1, 2011. Because this rate schedule is closed to new customers, if Customer is taking service under this rate schedule and subsequently elects to take service under another rate schedule, Customer may not again take service under this rate schedule.

RATE

Basic Service Charge: \$20.00 per meter per month for single-phase service

\$35.00 per meter per month for three-phase service

Plus an Energy Charge of: \$\,\textit{D.07152}\text{ per kWh}\text{ Deleted: 0.06928}

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

SSUED BY: /s/ Edwin R. Staton, Vice President Deleted: Lonnie E. Bellar

State Regulation and Rates Lexington, Kentucky

P.S.C. No. 16, First Revision of Original Sheet No. 15 Canceling P.S.C. No. 16, Original Sheet No. 15

Standard Rate

PS POWER SERVICE

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

This rate schedule is available for secondary or primary service.

Service under this schedule will be limited to customers whose 12-month-average monthly minimum secondary loads exceed 50 kW and whose 12-month-average monthly maximum loads do not exceed 250 kW. Secondary or primary customers receiving service under PSC 13, Fourth Revision of Original Sheet No. 20, Large Power Service, or Fourth Revision of Original Sheet No. 30, Mine Power Service, as of February 6, 2009, with loads not meeting these criteria will continue to be served under this rate at their option. If Customer is taking service under this rate schedule and subsequently elects to take service under another rate schedule, Customer may not again take service under this rate schedule unless and until Customer meets the Availability requirements that would apply to a new customer.

RATE

Basic Service Charge per month:	\$90.00	\$170.00
Plus an Energy Charge per kWh of:	\$.0.03564	\$ <u>0.03562</u> Deleted: 0 03340
Plus a Demand Charge per kW of:		Deleted: 0.03338
(Five Billing Periods of May through September) Winter Rate:	\$14.33	\$ 14.31

\$12.21

Where the monthly billing demand is the greater of:

 a) the maximum measured load in the current billing period but not less than 50 kW for secondary service or 25 kW for primary service, or

\$12.23

- a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, or
- a minimum of 60% of the contract capacity based on the maximum expected load on the system or on facilities specified by Customer.

DATE OF ISSUE: January 31, 2013

(All other months)

DATE EFFECTIVE: January 1, 2013

SSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky

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P.S.C. No. 16, First Revision of Original Sheet No. 20 Canceling P.S.C. No. 16, Original Sheet No. 20

Standard Rate

TODS TIME-OF-DAY SECONDARY SERVICE

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

This schedule is available for secondary service. Service under this schedule will be limited to customers whose 12-month-average monthly minimum average loads exceed 250 kW and whose 12-month-average monthly maximum average loads do not exceed 5,000 kW.

RATE

Basic Service Charge per month:

\$200.00

Plus an Energy Charge per kWh of:

\$.0.03773

Deleted: 0.03549

Plus a Maximum Load Charge per kW of:

Peak Demand Period 4.25 Intermediate Demand Period 2.65 Base Demand Period..... 3.32

Where:

the monthly billing demand for the Peak and Intermediate Demand Periods is the greater of:

- a) the maximum measured load in the current billing period, or
- b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, and

the monthly billing demand for the Base Demand Period is the greater of:

- a) the maximum measured load in the current billing period but not less than 250 kW, or
- b) a minimum of 75% of the highest billing demand in the preceding eleven (11) monthly billing periods, or
- c) a minimum of 75% of the contract capacity based on the maximum load expected on the system or on facilities specified by Customer.

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause	Sheet No. 85
Demand-Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/

Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky

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P.S.C. No. 16, First Revision of Original Sheet No. 22 Canceling P.S.C. No. 16, Original Sheet No. 22

Standard Rate

TODP TIME-OF-DAY PRIMARY SERVICE

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

This schedule is available for primary service. Service under this schedule will be limited to customers whose 12-month-average monthly minimum average loads exceed 250 kVA and whose 12-month-average monthly maximum new loads do not exceed 50,000 kVA. Existing customers may increase loads to a 12-month-average monthly maximum of 75,000 kVA by up to 2,000 kVA per year or in greater increments with approval of Company's transmission operator.

RATE

Basic Service Charge per month:

\$300.00

Plus an Energy Charge per kWh of:

\$ 0.03765

Deleted: 0.03541

Plus a Maximum Load Charge per kVA of:

Peak Demand Period \$ 4.03 Intermediate Demand Period \$ 2.53 Base Demand Period \$ 1.48

Where:

the monthly billing demand for the Peak and Intermediate Demand Periods is the greater of:

- a) the maximum measured load in the current billing period, or
- b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, and

the monthly billing demand for the Base Demand Period is the greater of:

- a) the maximum measured load in the current billing period but not less than 250 kVA, or
- b) a minimum of 75% of the highest billing demand in the preceding eleven (11) monthly billing periods, or
- a minimum of 75% of the contract capacity based on the maximum load expected on the system or on facilities specified by Customer.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 25

Standard Rate

RTS RETAIL TRANSMISSION SERVICE

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

This schedule is available for transmission service. Service under this schedule will be limited to customers whose 12-month-average monthly maximum new loads do not exceed 50,000 kVA. Existing customers may increase loads to a 12-month-average monthly maximum of 75,000 kVA by up to 2,000 kVA per year or in greater increments with approval of Company's transmission operator.

RATE

Basic Service Charge per month:

\$750.00

Plus an Energy Charge per kWh of:

\$,0.03634

Deleted: 0.03410

Plus a Maximum Load Charge per kVA of:

Peak Demand Period \$ 3.75 Intermediate Demand Period \$ 2.65 Base Demand Period \$ 1.12

Where:

the monthly billing demand for the Peak and Intermediate Demand Periods is the greater of:

- a) the maximum measured load in the current billing period, or
- b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, and

the monthly billing demand for the Base Demand Period is the greater of:

- a) the maximum measured load in the current billing period but not less than 250 kVA, or
- b) a minimum of 75% of the highest billing demand in the preceding eleven (11) monthly billing periods, or
- c) a minimum of 75% of the contract capacity based on the maximum load expected on the system or on facilities specified by Customer.

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause	Sheet No. 85
Demand-Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

DATE OF ISSUE: January 31, 2013 **DATE EFFECTIVE:** January 1, 2013

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 30

Standard Rate

FLS Fluctuating Load Service

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Available for primary or transmission service to customers up to an aggregate of two hundred (200) MVA for all customers taking service under this schedule and under the Fluctuating Load Service Rate FLS schedule of Louisville Gas and Electric Company. This schedule is restricted to individual customers whose monthly demand is twenty (20) MVA or greater. A customer is defined as a fluctuating load if that customer's load either increases or decreases twenty (20) MVA or more per minute or seventy (70) MVA or more in ten (10) minutes when such increases or decreases exceed one (1) occurrence per hour during any hour of the billing month.

Subject to the above aggregate limit of two hundred (200) MVA, this schedule is mandatory for all customers whose load is defined as fluctuating and not served on another standard rate schedule as of July 1, 2004.

BASE RATE

	<u>Primary</u>	Transmission	
Basic Service Charge per month:	\$750.00	\$750.00	
Plus an Energy Charge per kWh of:	\$ <u>0.03643</u>	<u> </u>	Deleted: 0.03419
Plus a Maximum Load Charge per kVA of:			Deleted: 0.03037
Peak Demand Period	\$ 2.31	\$ 2.31	
Intermediate Demand Period	\$ 1.42	\$ 1.42	

0.95

Where:

Base Demand Period

the monthly billing demand for the Peak and Intermediate Demand Periods is the greater of:

- a) the maximum measured load in the current billing period, or
- a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, and

1.70

the monthly billing demand for the Base Demand Period is the greater of:

- a) the maximum measured load in the current billing period but not less than 20,000 kVA,
- b) a minimum of 75% of the highest billing demand in the preceding eleven (11) monthly billing periods or
- c) a minimum of 75% of the contract capacity based on the maximum load expected on the system or on facilities specified by Customer.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 35

Standard Rate

LS **Lighting Service**

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Service under this rate schedule is offered, under the conditions set out hereinafter, for lighting applications such as, but not limited to, the illumination of street, driveways, yards, lots, and other outdoor areas where secondary voltage of 120/240 is available.

Service will be provided under written contract, signed by customer prior to service commencing, when additional facilities are required.

Units marked with an asterisk (*) are not available for use in residential neighborhoods except by municipal authorities.

OVERHEAD SERVICE

Based on Customer's lighting choice, Company will furnish, own, install, and maintain the lighting unit. A basic overhead service includes lamp, fixture, photoelectric control, mast arm, and, if needed, up to 150 feet of conductor per fixture on existing wood poles (fixture only). Company will, upon request, furnish ornamental poles of Company's choosing, together with overhead wiring and all other equipment mentioned for basic overhead service.

RATE

Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Monthly Fixture Only	Charge Ornamental		
High Droop	ure Sodium		Ū	•			
. •		r 000	0.000	e 0.07	⊕ 44 O4		
462/472	Cobra Head	5,800	0.083	\$ <u>8.27</u>	<u> </u>		Deleted: 8.21
463/473	Cobra Head	9,500	0.117	<u>.8.83</u>	<u>.11.99</u>		Deleted: 11.15
464/474	Cobra Head	22,000*	0.242	13.73	<u>,16.89</u>		
465/475	Cobra Head	50,000*	0.471	<u> 22.13</u>	<u> 23.75</u>	1, 1,	Deleted: 8.74
,							Deleted: 11.90
487	Directional	9,500	0.117	\$ <u>.8.69</u>		"''	Deleted: 13.55
488	Directional	22,000*	0.242	13.12		' '''	
489	Directional	50,000*	0.471	18.75			Deleted: 16.71
		,					Deleted: 21.78
428	Open Bottom	9,500	0.117	\$ <u>7.53</u>		(''')	Deleted: 23.40
Metal Halid						111	Deleted: 8 60
450	Directional	12,000*	0,150	\$13.66		','	Deleted: 12.94
451	Directional	32,000*	0.350	19.44			Deleted: 18.40
452	Directional	107,800*	1.080	<u>40.81</u>		'	Deleted: 7.44
						111	Deleted: 13.55
				7.00.741V110000000000000000000000000000000000		_ ',',	· <u> </u>
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	• •						Deleted: 40.00
DATE EFFECTIVE	 January 1, 2013 	3					

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/

Edwin R. Staton, Vice President

State Regulation and Rates

Lexington, Kentucky

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P.S.C. No. 16, Original Sheet No. 35.1

Standard Rate

LS Lighting Service

OVERHEAD SERVICE (continued)

Should Customer request underground service, Customer shall make a non-refundable cash contribution prior to the time of installation, or, at the option of company, make a work contribution to Company for the difference in the installed cost of the system requested and the cost of the overhead lighting system.

Where the location of existing poles is not suitable or where there are no existing poles for mounting of lights, and Customer requests service under these conditions, Company may furnish the requested facilities at an additional charge to be determined under the Excess Facilities Rider.

UNDERGROUND SERVICE

Based on Customer's lighting choice, Company will furnish, own, install, and maintain poles, fixtures, and any necessary circuitry up to 200 feet. All poles and fixtures furnished by Company will be standard stocked materials. Company may decline to install equipment and provide service thereto in locations deemed by Company as unsuitable for underground installation.

RATE

					Mo	onthly Charge			
	Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Fixture Only	Decorative Smooth	Historic Fluted		
ı	High Pressu	ıre Sodium							
	467	Colonial	5,800	0.083		\$10.38			Deleted: 10.32
	468	Colonial	9,500	0.117		10.85			Deleted: 10.76
1	401/411	Acorn	5,800	0.083		\$ <u>14.47</u>	\$20.99		Deleted: 14.41
	420/430	Acorn	9,500	0.117		<u>.15.05</u>	21.69		Deleted: 20.93
1	414	Victorian	5,800	0.083			\$30.45		Deleted: 14.96
	415	Victorian	9,500	0.117			,30.91	,	Deleted: 21.60
1	492/476	Cantomporoni	5 000	0.083	£44.00	£46.40			Deleted: 30.39
	492/476 497/477	Contemporary Contemporary	5,800 9,500	0.083	\$ <u>14.98</u> _15.04	<u>\$16.40</u> 		, `	Deleted: 30.82
	498/478	Contemporary	22,000*	0.117	17.20	26.34		///	Deleted: 14 92
	499/479	Contemporary	50,000*	0.471	20.78	32.41			Deleted: 14-32
1	300	Dark Sky Lanter	n 4,000	0.060		\$22.19		1111	Deleted: 14.95
	300	Dark Sky Lanter		0.000		23.19		1111	Deleted: 20.57
Ī		Dam on, Lame	2,233	••••					Deleted: 17.02
								11.11	Deleted: 26 16
	v								Deleted: 20.43
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		, ,						,	Deleted: 22 15
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İSSUE	DBY: /s/	Edwin R. Staton State Regulation Lexington, Kento	and Rates	<u>t</u>					Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 35.2

Standard Rate

LS **Lighting Service**

Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Fixture Only	nthly Charge Decorative Smooth	Historic Fluted		
360	Granville	16,000	0.181		\$ <u>53.15</u>		Deleted: 53.01	
	Granville Ac	cessories:						
	Twin Cros	sarm Bracket (inclu	ides 1 fixtu	re)		\$20.57		
	24 Inch Ba	anner Arm				3.21		
	24 Inch Cl	amp Banner Arm				4.43		
	18 Inch Ba	anner Arm				2.95		
	18 Inch Cl	amp Banner Arm				3.66		
	Flagpole H					1.36		
		nted Receptacle				19.19		
	Additional	Post-Mounted Rec	eptacle (Li	mit 1 Per Po	ole)	2.62		
	Planter				•	4.45		
	Clamp-On	Planter				4.94		
	Granville ı	inits are restricted t	o installatio	ns and			•	
		ns for the cities of L						

Metal	Halide

490/494	Contemporary	12,000*	0.150	\$ <u>14.88</u> \$ <u>27.78</u>
491/495	Contemporary	32,000*	0.350	21.1734.07
493/496	Contemporary	107,800*	1.080	<u>.44.16</u> <u>.57.05</u>

Deleted: 14.77 Deleted: 27.67 Deleted: 20.91 Deleted: 33.81 Deleted: 43.35 Deleted: 56.24

Customer shall make a non-refundable cash contribution prior to the time of installation, or, at the option of Company, make a work contribution to Company for the difference in the installed cost of the system requested and the cost of the conventional overhead lighting system.

Where Customer's location would require the installation of additional facilities, Company may furnish, own, and maintain the requested facilities at an additional charge per month to be determined under the Excess Facilities Rider.

DUE DATE OF BILL

Customer's payment will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill. Billing for this service to be made a part of bill rendered for other electric service.

DETERMINATION OF ENERGY CONSUMPTION

The kilowatt-hours will be determined as set forth on Sheet No. 67 of this Tariff.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/

Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Deleted: Lonnie E. Bellar

P.S.C. No. 16, First Revision of Original Sheet No. 36 Canceling P.S.C. No. 16, Original Sheet No. 36

Standard Rate

RLS Restricted Lighting Service

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Service under this rate schedule is restricted to those lighting fixtures/poles in service as of August 1, 2012, except where a spot replacement maintains the continuity of multiple fixtures/poles comprising a neighborhood lighting system. Spot placement of restricted fixtures/poles is contingent on the restricted fixtures/poles being available from manufacturers. Spot replacement of restricted units will be made under the terms and conditions provided for under non-restricted Lighting Service Rate LS.

In the event restricted fixtures/poles fail and replacements are unavailable, Customer will be given the choice of having Company remove the failed fixture/pole or replacing the failed fixture/pole with other available fixture/pole.

OVERHEAD SERVICE

Based on Customer's lighting choice, Company has furnished, installed, and maintained the lighting unit complete with lamp, fixture, photoelectric control, mast arm, and, if needed, up to 150 feet of conductor per fixture on existing wood poles (fixture only). Company has, upon request, furnished poles, of Company's choosing, together with overhead wiring and all other equipment mentioned for overhead service.

RAT	Έ				Month	ly Charge		
	Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Fixture Only	Fixture and Pole		
H	ligh Pressur	re Sodium						
	461/471	Cobra Head	4,000	0.060	\$ 7.24	<u>\$10.19</u>		Deleted: 7.20
	409	Cobra Head	50,000	0.471	,11.00		(```	Deleted: 10.15
1	426	Open Bottom	5,800	0.083	<u>.7.05</u>			Deleted: 10.65
,	letal Halide	•						Deleted: 6.99
1	454	Directional	12,000	0.150		\$ <u>18.06</u>		Deleted: 17 95
	455	Directional	32,000	0.350		23.83		<u> </u>
	459	Directional	107,800	1.080		45.20		Deleted: 23.57
1	.00	<i>211001101101</i>	, , , , , , , , , , , , , , , , , , , ,					Deleted: 44.39
	lercury Vap	or						
	446/456	Cobra Head	7,000	0.207	\$ <u>.9.21</u>	\$11.52		Deleted: 9.06
	447/457	Cobra Head	10,000	0.294	10.92	12.96		Deleted: 11.37
	448/458	Cobra Head	20,000	0.453	12.35	<u>14.62</u>	(```	Deleted: 10.70
	404	Open Bottom	7,000	0.207	.10.22		,,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,	Deleted: 12.74
	······································	-						Deleted: 12.01
DATE C	F ISSUE:	January 31, 2013	i e				ν,	Deleted: 14.28
		•					`,	Deleted: 10.07
DATE E	FFECTIVE:	January 1, 2013						

Deleted: Lonnie E. Bellar

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky

P.S.C. No. 16, First Revision of Original Sheet No. 36.1 Canceling P.S.C. No. 16, Original Sheet No. 36.1

Standard Rate

RLS Restricted Lighting Service

OVERHEAD SERVICE (continued)

421	Tear Drop	1,000	0.102	\$ 3.28	Deleted: 3.20
422	Tear Drop	2,500	0.201	4.40	Deleted: 4.25
424/434	Tear Drop	4,000 6.000	0.327 0.447	6.56 \$ 7.52 8.76	Deleted: 6.32
425	Tear Drop	6,000	0.447	<u>5.70</u>	Deleted: 7.28
Where the I	ocation of existing	poles was not suita	ble, or where	there were no existing poles for	Deleted: 8.43

mounting of lights, and Customer requested service under these conditions, Company may have furnished the requested facilities at an additional charge determined under the Excess Facilities Rider.

UNDERGROUND SERVICE

Based on Customer's lighting choice, Company has furnished, installed, and maintained the lighting unit complete with lamp, fixture, photoelectric control, mast arm, and, if needed, up to 200 feet of conductor per fixture on appropriate poles.

	RATE				Mc	onthly Charge			
	Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Wood Pole	Decorative Smooth	Historic Fluted		
	Metal Halide	Э						47	
1	460	Directional	12,000	0.150		\$ <u>26.56</u>		Delo	eted: 26.45
	469	Directional	32,000	0.350		32.34		Delo	eted: 32.08
1	470	Directional	107,800	1.080		,53.71		Delo	eted: 52 90
	High Pressi	ure Sodium							
	440/410	Acorn	4,000	0.060		\$ <u>13.31</u>	\$19.96	Delo	eted: 13.27
1	400	Onlawial	4.000	0.060		ቀ ດ ၁၁		Dele	eted: 19.92
l	466	Colonial	4,000	0.000		\$ <u>9.32</u>		Del	eted: 9.28
1	412	Coach	5,800	0.083		\$30.45		Delo	eted: 30.39
	413	Coach	9,500	0.117		,30.91		Del	eted: 30.82

DUE DATE OF BILL

Payment is due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill. Billing for this service to be made a part of the bill rendered for other electric service.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/

Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 37

Standard Rate

LE Lighting Energy Service

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Available to municipalities, county governments, divisions or agencies of the state or Federal governments, civic associations, and other public or quasi-public agencies for service to public street and highway lighting systems, where the municipality or other agency owns and maintains all street lighting equipment and other facilities on its side of the point of delivery of the energy supplied hereunder.

RATE

\$0.06095 per kWh

Deleted: 0.05871

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause	Sheet No. 85
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

DUE DATE OF BILL

Customer's payment will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill.

CONDITIONS OF DELIVERY

- a) Service hereunder will be metered except when, by mutual agreement of Company and customer, an unmetered installation will be more satisfactory from the standpoint of both parties. In the case of unmetered service, billing will be based on a calculated consumption taking into account the types of equipment served.
- b) The location of the point of delivery of the energy supplied hereunder and the voltage at which such delivery is effected shall be mutually agreed upon by Company and the customer in consideration of the type and size of customer's street lighting system and the voltage which Company has available for delivery.

TERMS AND CONDITIONS

Service will be furnished under Company's Terms and Conditions applicable hereto.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky

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P.S.C. No. 16, First Revision of Original Sheet No. 38 Canceling P.S.C. No. 16, Original Sheet No. 38

Standard Rate

TE

Traffic Energy Service

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

Available to municipalities, county governments, divisions of the state or Federal governments or any other governmental agency for service on a 24-hour all-day every-day basis, where the governmental agency owns and maintains all equipment on its side of the point of delivery of the energy supplied hereunder. In the application of this rate each point of delivery will be considered as a separate customer.

This service is limited to traffic control devices including, signals, cameras, or other traffic lights and electronic communication devices.

RATE

Basic Service Charge:

\$3.25 per delivery per month

Plus an Energy Charge of:

\$0.07693 per kWh

Deleted: 0.07469

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause

Environmental Cost Recovery Surcharge

Sheet No. 85

Franchise Fee Rider

Sheet No. 90

School Tax

Sheet No. 91

MINIMUM CHARGE

The Basic Service Charge shall be the minimum charge.

DUE DATE OF BILL

Customer's payment will be due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill.

CONDITIONS OF SERVICE

 Service hereunder will be metered except when, by mutual agreement of Company and customer, an unmetered installation will be more satisfactory from the standpoint of both parties. In the case of unmetered service, billing will be based on a calculated consumption, taking into account the size and characteristics of the load, or on meter readings obtained from a similar installation.

DATE OF ISSUE: January 31, 2013

DATE EFFECTIVE: January 1, 2013

SSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky Deleted: Lonnie E. Bellar

P.S.C. No. 16, Original Sheet No. 79

Standard Rate

LEV

Low Emission Vehicle Service

APPLICABLE

In the territory served.

AVAILABILITY OF SERVICE

LEV shall be available as option to customers otherwise served under rate schedule RS to encourage off-peak power for low emission vehicles.

- 1) LEV is a three year pilot program that may be restricted to a maximum of one hundred (100) customers eligible for Rate RS (or GS where the GS service is used in conjunction with an RS service to provide service to a detached garage and energy usage is no more than 300 kWh per month) in any year and shall remain in effect until modified or terminated by order of the Commission. Company will accept applications on a first-come-first-served basis.
- This service is restricted to customers who demonstrate power delivered to premises is consumed, in part, for the powering of low emission vehicles licensed for operation on public streets or highways. Such vehicles include:
 - a) battery electric vehicles or plug-in hybrid electric vehicles recharged through a charging outlet at Customer's premises,
 - b) natural gas vehicles refueled through an electric-powered refueling appliance at Customer's premises.
- 3) A customer exiting the pilot program or disconnected for non-payment may not be allowed to return to it until the Commission has issued a decision on the pilot program report.
- Company will file a report on LEV with the Commission within six months after the first three years of implementation of the pilot program. Such report will detail findings and recommendations.

RATE

Basic Service Charge:

\$10.75 per month

Plus an Energy Charge: Off Peak Hours: Intermediate Hours: Peak Hours:

\$0.05302 per kWh \$0.07478 per kWh \$0.14012 per kWh Deleted: 0.05078 Deleted: 0.07254 Deleted: 0.13788

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause Sheet No. 85 Demand Side Management Cost Recovery Mechanism Sheet No. 86 **Environmental Cost Recovery Surcharge** Sheet No. 87 Franchise Fee Rider Sheet No. 90 Sheet No. 91 School Tax Sheet No. 92 Home Energy Assistance Program

DATE OF ISSUE:

January 31, 2013

DATE EFFECTIVE: January 1, 2013

ISSUED BY: /s/

Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky

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Kentucky Utilities Company

P.S.C. No. 16, First Revision of Original Sheet No. 85.1 Canceling P.S.C. No. 16, Original Sheet No. 85.1

Adjustment Clause

FAC Fuel Adjustment Clause

- (3) Forced outages are all non-scheduled losses of generation or transmission which require substitute power for a continuous period in excess of six (6) hours. Where forced outages are not as a result of faulty equipment, faulty manufacture, faulty design, faulty installations, faulty operation, or faulty maintenance, but are Acts of God, riot, insurrection or acts of the public enemy, then the utility may, upon proper showing, with the approval of the Commission, include the fuel cost of substitute energy in the adjustment. Until such approval is obtained, in making the calculations of fuel cost (F) in subsection (2)(a) and (b) above, the forced outage costs to be subtracted shall be no less than the fuel cost related to the lost generation.
- (4) Sales (S) shall be all kWh sold, excluding inter-system sales. Where, for any reason, billed system sales cannot be coordinated with fuel costs for the billing period, sales may be equated to the sum of (i) generation, (ii) purchases, (iii) interchange in, less (iv) energy associated with pumped storage operations, less (v) inter-system sales referred to in subsection (2)(d) above, less (vi) total system losses. Utility used energy shall not be excluded in the determination of sales (S).
- (5) The cost of fossil fuel shall include no items other than the invoice price of fuel less any cash or other discounts. The invoice price of fuel includes the cost of the fuel itself and necessary charges for transportation of the fuel from the point of acquisition to the unloading point, as listed in Account 151 of FERC Uniform System of Accounts for Public Utilities and Licensees.
- (6) Base (b) period shall be the twelve (12) months ending October 2010 and the base fuel factor is \$0.02892 per kWh.

Deleted: 0.02668

- (7) Current (m) period shall be the second month preceding the month in which the Fuel Clause Adjustment Factor is billed.
- (8) Pursuant to the Public Service Commission's Order in Case No. 2010-00492 dated May 31, 2011, the Fuel Adjustment Clause will become effective with bills rendered on and after the first billing cycle for July 2011, which begins June 29, 2011.

DATE OF ISSUE: January 31, 2013 **DATE EFFECTIVE:** January 1, 2013

SSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates Lexington, Kentucky

Deleted: Lonnie E. Bellar

Issued by Authority of an Order of the Public Service Commission in Case No. 2012-00221 dated December 20, 2012

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Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 18

Witness: Mike Dotson

- Q-18. a. State whether KU regularly compares the price of its coal purchases with those paid by other electric utilities.
 - b. If the response is yes, state:
 - (1) The utilities that are included in this comparison and their locations; and
 - (2) How KU's prices compare with those of the other utilities for the review period. Include all prices used in the comparison in cents per MMbtu.

A-18. a. Yes

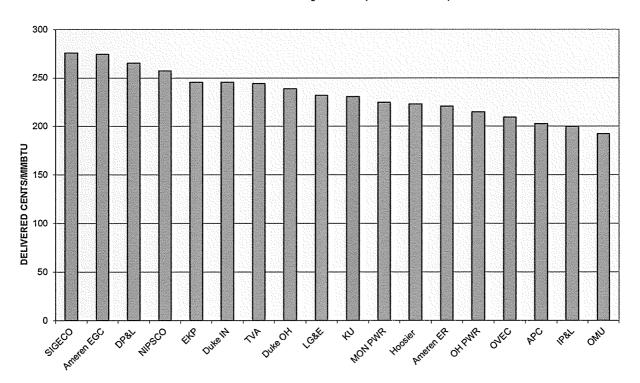
b. KU compares pricing of its coal purchases with neighboring utilities from data that is compiled by Energy Velocity database. The utilities included in the comparison are shown on the list found on page 1 of the Attachment to this response. The chart found on page 2 of the Attachment shows the price comparison for coal containing greater than 5.0 lbs. SO₂ content, which is consistent with coal burned in KU's units at the Ghent Station, Trimble County Unit 2 and E. W. Brown Station starting January 1, 2012. The chart found on page 3 of the Attachment shows the comparison for coal less than 5.0 lbs. SO₂, which is consistent with the coal burned in KU's units at the Tyrone Station for NYMEX coal, Brown Station for low sulfur coal prior to January 1, 2012, and Green River Station for mid-sulfur coal.

LG&E is included on the price comparison chart on page 3 of the Attachment because LG&E accepts deliveries of lower sulfur coal to satisfy bids with a sulfur content specification of 6 lbs. The lower sulfur coal is being supplied under a contract specifying high sulfur content coal and appropriate pricing; therefore, the price of the lower sulfur content coal is similar to what LG&E is paying for high sulfur coal.

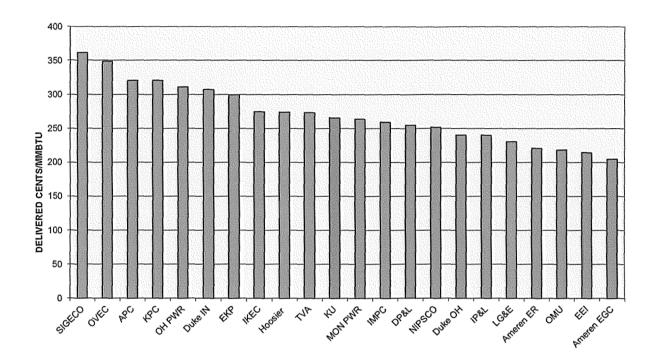
Utilities in Comparison List

UTILITY	ABBREVIATED	PLANT LOCATIONS
AmerenEnergy Generating Co	Ameren ER	Illinois
AmerenEnergy Resources Generating Co	Ameren EGC	Illinois
Appalachian Power Co	APC	Virginia, West Virginia
Cardinal Operating (AEP)	Cardinal	Ohio
Columbus Southern Power Co	CSPC	Kentucky, Ohio
Dayton Power & Light Co (The)	DP&L	Ohio
Duke Energy Indiana	Duke IN	Indiana
Duke Energy Ohio	Duke OH	Ohio
East Kentucky Power Coop	EKP	Kentucky
Electric Energy Inc	EEI	Illinois
Hoosier Energy Rural Electric Coop Inc	Hoosier	Indiana
Indiana Kentucky Electric Corp	IKEC	Indiana
Indiana Michigan Power Co	IMPC	Indiana
Indianapolis Power & Light	IP&L	Indiana
Kentucky Power Co	KPC	Kentucky
Kentucky Utilities Co	KU	Kentucky
Louisville Gas & Electric Co	LG&E	Kentucky
Monongahela Power Co	MON PWR	West Virginia
Northern Indiana Public Service Co	NIPSCO	Indiana
Ohio Power Co	OH PWR	Ohio, West Virginia
Ohio Valley Electric Corp	OVEC	Ohio
Owensboro Municipal Utilities	OMU	Kentucky
Southern Indiana Gas & Electric Co	SIGECO	Indiana
Tennessee Valley Authority	TVA	Alabama, Kentucky, Tennessee

Price Comparison ≥ 5.0 Lbs SO₂ Content (Jan 12 - Dec 12)



Price Comparison < 5.0 Lbs SO₂ Content Jan 12 - Dec12)



Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 19

Witness: Mike Dotson

- Q-19. For the period under review by generating station, list the percentages of KU's coal delivered by:
 - a. Rail;
 - b. Truck; and
 - c. Barge.
- A-19. a. Rail 17%
 - b. Truck 6%
 - c. Barge 77%

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 20

Witness: Mike Dotson

- Q-20. For each generating station, state the methods of coal delivery currently available.
- A-20. E.W. Brown Station Rail and truck.

Ghent Station - Barge

Green River Station - Truck

Trimble Unit 2 - Barge

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 21

Witness: Mike Dotson

- Q-21. a. State KU's coal inventory level in tons and in number of days' supply as of October 31, 2012. Provide this information by generating station and in the aggregate.
 - b. Describe the criteria used to determine the number of days' supply.
 - c. Compare KU's coal inventory as of October 31, 2012 to its inventory target for that date for each plant and for total inventory.
 - d. If actual coal inventory exceeds inventory target by 10 days' supply, state the reasons for the additional inventory.
 - e. (1) State whether KU expects any significant changes in its current coal inventory target within the next 12 months.
 - (2) If the response is yes, state the expected change and the reasons for this change.

A-21. a. As of October 31, 2012:

EW Brown	228,119 Tons; 36 Days	Target 22-45 Days
Ghent	843,461 Tons; 40 Days	Target 21-40 Days
Green River	100,898 Tons; 48 Days	Target 37-69 Days
Tyrone	7,624 Tons; 9 Days	Target 6-29 Days
Trimble County*	372,988 Tons; 58 Days	Target 25-45 Days
Total	1,553,090 Tons; 43 Days	Target 23-44 Days

- Trimble County coal inventory includes both PRB and High Sulfur coals used for Trimble County Unit 2.
- b. The method of calculating days in inventory is based on each plant's coal burn capability (coal tons in inventory divided by 90% of each generating unit's heat input description from its air permit to operate).

Upper and lower tons/day targeted inventory days were established for each plant taking into consideration each plant's operating parameters. Each plants "least cost" inventory range is established annually during the planning process based on historical coal burn/receipt variances, procurement reaction time for long-term fuel supply agreements, current coal and electricity prices offset by carrying and outage costs.

- c. See (a) above.
- d. Trimble County Unit 2 inventory level exceeded the target due to an extensive outage during the review period.
- e. (1) KU does not expect significant changes in its current coal inventory target levels; however, during the Companies' planning cycle minor adjustments may be made to the inventory targets if warranted.
 - (2) Not applicable.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 22

Witness: Mike Dotson

- Q-22. a. State whether KU has audited any of its coal contracts during the period from May 1,2012 to October 31,2012.
 - b. If the response is yes, for each audited contract:
 - (1) Identify the contract;
 - (2) Identify the auditor;
 - (3) State the results of the audit; and
 - (4) Describe the actions that KU took as a result of the audit.
- A-22. a. No. KU has not conducted any financial audits of coal companies. KU's current coal contracts either contain a fixed price or a portion of the base contract price is adjusted using government published indices to reflect the changes in the cost. These agreements thus do not require audits. Either KU's Manager Fuels Risk Management or KU's Mining Engineer conducts scheduled on-site reviews and inspections of the mining operations and sampling systems of each vendor up to twice a year, and likewise may conduct unscheduled visits. Additionally, KU employees may visit a vendor as needed to address problems and issues at any time.

Coal mine safety regulations were imposed by the Federal Mine Safety and Health Administration. The U. S. Congress passed the Mine Improvement and New Emergency Response Act of 2006 (MINER Act), which became law on June 15, 2006. For claims received, KU has hired Weir International, Inc. (a consultant with experience in the mining industry) to review the requests.

Smoky Mountain Coal, in accordance with the provisions of Section 8.3 New Imposition of Agreement KUF-02860, requested a price increase for the periods of July 1, 2007 – May 31, 2008 and June 1, 2008 – September 30, 2008. Weir has reviewed the claims for this period. As indicated in the response to Question No. 24, KU is currently in litigation on this contract.

Perry County Coal Corporation, in accordance with the provisions of Section 8.5 Governmental Impositions of Agreement K06108, requested a price increase for 2011. The Parties agreed to a settlement. A copy of the Settlement Agreement made as of July 25, 2012 is being filed with the Commission under seal pursuant to a Petition for Confidential Treatment.

Alliance Coal, LLC in accordance with the provisions of Section 8.3 New Impositions of Agreement J09002, requested a price increase for calendar year 2011. The Parties agreed to a settlement. A copy of the Settlement Agreement effective November 14, 2012 is being filed with the Commission under seal pursuant to a Petition for Confidential Treatment.

Patriot Coal Sales, LLC in accordance with the provisions of Section 8.4 New Impositions of Agreement J12001, requested a price increase for the September 2010 ETS (rock dust). The Parties agreed to a settlement. A copy of the Settlement Agreement made as of September 14, 2012 is being filed with the Commission under seal pursuant to a Petition for Confidential Treatment.

b. Not applicable

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 23

Witness: Robert M. Conroy

- Q-23. a. State whether KU has received any customer complaints regarding its FAC during the period from May 1,2012 to October 31,2012.
 - b. If the response is yes, for each complaint, state:
 - (1) The nature of the complaint; and
 - (2) KU's response.
- A-23. a. No.
 - b. Not applicable.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 24

Witness: Mike Dotson

- Q-24. a. State whether KU is currently involved in any litigation with its current or former coal suppliers.
 - b. If the response is yes, for each litigation:
 - (1) Identify the coal supplier;
 - (2) Identify the coal contract involved;
 - (3) State the potential liability or recovery to KU;
 - (4) List the issues presented; and
 - (5) Provide a copy of the complaint or other legal pleading that initiated the litigation and any answers or counterclaims. If a copy has previously been filed with the Commission, provide the date on which it was filed and the case in which it was filed.
 - c. State the current status of all litigation with coal suppliers.

A-24. a. Yes

b. Coal Supply Agreement KUF02860/LGE02013

- (1) Resource Sales, Inc. ("Resource"), Allied resources, Inc. ("Allied"), Cochise Coal Company, Inc. ("Cochise"), and Smoky Mountain Coal Corporation ("SMCC").
- (2) Coal Purchase Order KUF-02860 dated as of January 1, 2002, as amended.
- (3) KU and LG&E jointly seek to recover damages arising from the non-delivery of 1,019,829 tons of coal. Plaintiffs seek to have the court interpret the force

- majeure provision in the Agreement and to recover the amount of payments withheld by KU and LG&E to offset their claim for damages.
- (4) Plaintiffs claim the force majeure provision should be interpreted in such a way that KU is not entitled to any more deliveries of coal pursuant to the Agreement. KU disagrees and withheld certain payments, as permitted under the Agreement and demands that the Plaintiffs resume deliveries as required under the Agreement.
- (5) A copy of the Complaint filed by the Plaintiffs in the Circuit Court of Webster County, Kentucky, Civil Action No. 08-CI-00334, a copy of the First Amended Complaint filed by the Plaintiffs in the Circuit Court of Webster, Kentucky, Civil Action No. 08-CI-00334, and a copy of the Answer and Counterclaim filed by KU was filed with the Commission in Case No. 2008-00520.
- c. This case is in the discovery phase and is ongoing. The Court denied Plaintiff's motion for judgment on the pleadings and agreed with KU's argument that the UCC applies to the contract and allows its interpretation to be informed by evidence on course of conduct, course of dealing and usage of trade. A trial is presently set to begin on June 17, 2013.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 25

Witness: Mike Dotson

- Q-25. List each written coal supply solicitation issued during the period May 1, 2012 to October 31, 2012.
 - a. For each solicitation, provide the date of the solicitation (contract or spot), the quantities solicited, a general description of the quality of coal solicited, the time period over which deliveries were requested, and the generating unit(s) for which the coal was intended.
 - b. For each solicitation, state the number of vendors to whom the solicitation was sent, the number of vendors who responded, and the selected vendor. Provide the bid tabulation sheet or corresponding document that ranks the proposals. (This document shall identify all vendors who made offers.) State the reasons for each selection. For each lowest-cost bid not selected, explain why the bid was not selected.
- A-25. a. In Case No. 2012-00320, a review if KU's FAC for the period November 1, 2011 through April 30, 2012, the final selection of the vendors who responded to the solicitation dated March 5, 2012 was not complete at the time the data responses were The requested information for the selected vendors mentioned above is provided below.

Date: March 5, 2012 Contract/Spot: Contract or Spot

Quantities: No minimum or maximum specified

Ouality: Suitable for LG&E power plants and KU's Ghent power plants

Period: Up to 10 years

Generating Units: All LG&E coal fired units and KU's Ghent power plant (beginning

July 1, 2012)

b. Number of vendors receiving bids: 143

Number of vendors responded: 23 companies / 47 offers

Selected vendor(s): High sulfur coal for barge served plants: The vendor selected

was based upon the lowest evaluated delivered cost.

Rhino Energy, LLC – J14001

The bid analysis information is confidential and proprietary information and is being filed with the Commission under seal pursuant to a Petition for Confidential Protection

a. Date: August 15, 2012 Contract/Spot: Contract or Spot

Quantities: No minimum or maximum specified

Suitable for KU's Green River power plant Quality:

Period: Up to 2 years

Generating Units: KU's Green River power plant (beginning January 1, 2013)

b. Number of vendors receiving bids: 12

Number of vendors responded: 4 companies / 4 offers

Selected vendor(s): The vendors selected were based upon the lowest evaluated delivered cost.

Western Kentucky Minerals, Inc./Sun Energy Group, LLC - J12045 test order and J13002 2-year coal supply agreement.

Patriot Coal Sales, LLC K11001 Reopener

The bid analysis information is confidential and proprietary information and is being filed with the Commission under seal pursuant to a Petition for Confidential Protection.

September 24, 2012 a. Date: Contract/Spot: Contract or Spot

Quantities: No minimum or maximum specified Suitable for LG&E and KU power plants Quality:

Period: Up to 10 years

Generating Units: All LG&E and KU power plants

b. Number of vendors receiving bids: 138

Number of vendors responded: 20 companies / 29 offers

Selected vendor(s): The final selection of the vendor(s) from the bids has not been completed; however, negotiations are still in progress. The name of the selected vendors and supporting bid tabulation will be provided to the Commission after the negotiations are completed and the agreements signed.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 26

Witness: Mike Dotson

- Q-26. List each oral solicitation for coal supplies issued during the period from May 1,2012 to October 31, 2012.
 - a. For each solicitation, state why the solicitation was not written, the date(s) of the solicitation, the quantities solicited, a general description of the quality of coal solicited, the time period over which deliveries were requested, and the generating unit(s) for which the coal was intended.
 - b. For each solicitation, identify all vendors solicited and the vendor selected. Provide the bid tabulation sheet or other document that ranks the proposals. (This document shall identify all vendors who made offers.) State the reasons for each selection. For each lowest-cost bid not selected, explain why the bid was not selected.
- A-26. KU did not issue any oral coal supply solicitations.
 - a. Not applicable.
 - b. Not applicable.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 27

Witness: Mike Dotson

- Q-27. For the period from May 1, 2012 to October 31, 2012, list each vendor from whom coal was purchased and the quantity and nature of each purchase (e.g., spot or contract). For the period under review in total, provide the percentage of purchases that were spot versus contract. For contract purchases, state whether the contract has been filed with the Commission. If the response is no, explain why it has not been filed.
- A-27. See attached. The contracts have been filed with the Commission.

Attachment to Response to Question No. 27 Page 1 of 1 Dotson

PURCHASE	PURCHASE	
VENDOR	TONNAGE	TYPE
Alliance Coal LLC - J09002	76,436	Contract
Alliance Coal LLC - J12007	14,326	Contract
Arch Coal Sales Company Inc J12016	11,513	Spot
Armstrong Coal Company - J07032	611,904	Contract
Armstrong Coal Company - J10009	306,696	Contract
Armstrong Coal Company - K11002	170,454	Contract
Foresight Coal - J12005	207,295	Contract
Oxford Mining Company - Kentucky LLC - J07003 B	168,853	Contract
Oxford Mining Company - Kentucky LLC - J12003	112,274	Contract
Peabody Coaltrade, LLC - J12008	292,566	Spot
Patriot Coal Corporation - K11001	52,291	Contract
Patriot Coal Corporation - J12001	605,529	Contract
Patriot Coal Corporation - J12012	3,210	Spot
Peabody Coalsales, LLC - J12011	513,489	Contract
Revelation Energy - J12035	4,775	Spot
Revelation Energy - J12040	37,160	Spot
Rhino Energy LLC - J08028	107,711	Contract
Solar Sources - J12010	181,048	Contract
Sun Energy Group - K12045	4,898	Spot
Triad Mining - J12009	391,686	Contract
Western Kentucky Minerals Inc J10001	121,159_	Contract
TOTAL	3,995,272	
	3,641,150	91% Contract
	354,122	9% Spot
	3,995,272	

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 28

Witness: Robert M. Conroy

- Q-28. For the period from May 1, 2012 to October 31, 2012, list each vendor from whom natural gas was purchased for generation and the quantity and nature of each purchase (e.g., spot or contract). For the period under review in total, provide the percentage of purchases that were spot versus contract. For contract purchases, state whether the contract has been filed with the Commission. If the response is no, explain why it has not been filed.
- A-28. Please see the attachment for the list of vendors, associated quantities, and nature of natural gas purchases. Please note that purchases from Louisville Gas & Electric are primarily for LG&E owned coal and gas fired generation and purchases from Columbia Gas are for KU owned gas fired generation served by the local distribution company; however, other natural gas purchases are made on an aggregate basis and not by utility ownership percentages of individual generating units. KU and LG&E have joint ownership in certain CT units. Trimble County Units 5 and 6 are owned 71% by KU and 29% by LG&E. Trimble County Units 7, 8, 9, and 10 are owned 63% by KU and 37% by LG&E. Brown Unit 5 and Paddy's Run Unit 13 are owned 47% by KU and 53% by LG&E. Brown Units 6 and 7 are owned 62% by KU and 38% by LG&E. Fuel expenses, not individual natural gas purchase transactions, are allocated to the Companies based on their respective ownership percentages.

Purchases from Louisville Gas & Electric Company's Gas Distribution Business are Special Contract purchases. The Special Contract for Firm Gas Sales and Firm Transportation Service dated September 28, 2007 and effective April 11, 2008, between Louisville Gas and Electric Company, on behalf of its Gas Distribution Business, and Louisville Gas and Electric Company and Kentucky Utilities Company, on behalf of their Electric Generation Business, was originally filed with the Kentucky Public Service Commission in Case No. 2007-00449. All remaining purchases are spot purchases.

Natural Gas Purchases 5/1/2012 - 10/31/2012

Purchase Vendor	<u>Type</u>	MMBTU
Anadarko Trading	Spot	327,128
Associated Energy	Spot	15,166
Atmos Energy	Spot	489,700
BG Energy Merchants	Spot	470,800
BNP Paribas	Spot	349,600
BP Energy	Spot	89,500
Chevron NG	Spot	152,700
CIMA Energy	Spot	54,400
Citigroup Energy	Spot	2,623,082
Columbia Gas of KY	Spot*	23,582
Colonial Energy	Spot	392,536
Conoco-Phillips	Spot	1,046,900
Enbridge	Spot	90,400
Gavilon	Spot	105,600
JLA Energy	Spot	57,300
Laclede Energy	Spot	21,000
Louis Dreyfus Energy	Spot	11,000
MacquarieCook Energy	Spot	477,549
Mieco	Spot	5,000
NJR Energy Services	Spot	474,500
ONEOK Energy	Spot	538,600
Sempra Midstream	Spot	70,100
Sequent Energy	Spot	641,257
Shell Energy NA	Spot	307,113
Southwestern Energy Srvcs	Spot	20,000
Tenaska Market Ventures	Spot	430,600
Total Gas & Power Mktg	Spot	94,000
Twin Eagle	Spot	131,907
Vitol Inc.	Spot	100,600
Tennessee Gas Pipeline	Imbalance Cashout	7,338
Louisville Gas and Electric	Special Contract*	248,676
	Total Voume	9,867,634

^{*-}Local Distribution Company service, with no volume purchase commitments.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 29

Witness: Robert M. Conroy / Mike Dotson

- Q-29. State whether KU engages in hedging activities for its coal or natural gas purchases used for generation. If the response is yes, describe the hedging activities in detail.
- A-29. KU does not engage in financial hedging activities for its coal purchases. KU does use physical hedging in contracting for coal. KU uses the following guidelines in utilization of coal under contract:

1 year out 2 years out 80 - 95% 3 years out 40 - 90% 4 years out 30 - 70% 5 years out 10 - 50% 6 years out 0 - 30%

KU does not engage in hedging activities for natural gas purchases.

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 30

Witness: Mike Dotson / Charles R. Schram

- Q-30. For each generating station or unit for which a separate coal pile is maintained, state for the period from May 1, 2012 to October 31, 2012 the actual amount of coal burned in tons, actual amount of coal deliveries in tons, total kWh generated, and actual capacity factor at which the plant operated.
- A-30. The information requested from May 1, 2012 to October 31, 2012 is shown in the table below:

				Capacity Factor
				(Net MWh)/
	Coal Burn	Coal Receipts	:	(period hrs x
Plant	(Tons)	(Tons)	Net MWh	MW rating)
E. W. Brown	690,162	667,011	1,434,425	47.5%
Ghent	3,027,938	2,808,052	6,298,240	73.8%
Green River	228,426	227,643	436,945	60.7%
Tyrone		_	(674)	-0.2%
Trimble County HS	N/A	1,443,348	N/A	N/A
Trimble County PRB	N/A	292,566	N/A	N/A
Trimble County 2	905,430	N/A	2,065,466	63.9%

Notes: 1

- 1 Tyrone 3 was on Inactive Reserve status throughout the period.
- Trimble County values reflect 100% of the unit. Trimble County 2 is owned by KU (60.75%), LG&E (14.25%), IMPA (12.88%), and IMEA (12.12%).
- 3 The North American Electric Reliability Council Generation Availability Data System defines capacity factor as the value equal to the net MWh produced divided by the product of the hours in the period and the unit rating.

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 31

Witness: Mike Dotson

- Q-31. a. During the period from May 1, 2012 to October 31, 2012, have there been any changes to KU's written policies and procedures regarding its fuel procurement?
 - b. If yes,
 - (1) Describe the changes;
 - (2) State the date(s) the changes were made;
 - (3) Explain why the changes were made; and
 - (4) Provide the written policies and procedures as changed.
 - c. If no, provide the date when KU's current fuel procurement policies and procedures were last changed, when they were last provided to the Commission, and identify the proceeding in which they were provided.
- A-31. a. No changes were made during the period referenced above. However, the Fuel Procurement Policies and Procedures were updated effective March 1, 2013.
 - b. (1) The Fuel Procurement Policies and Procedures were updated to reflect changes in the titles of Senior Managers, to add and Authority Limit Matrix, to remove the Statement of Trading, and to add Sarbanes-Oxley definitions
 - (2) Changes were made to the Fuel Procurement Policies and Procedures effective March 1, 2013.
 - (3) See b (1) above.
 - (4) Attached is an executed copy of the updated Fuel Procurement Policies and Procedures effective March 1, 2013 and a redline copy noting the changes.
 - c. Not applicable.

A. <u>Definitions:</u>

- "Agreement" means a legally binding document, in which one party agrees to sell and the other agrees to buy Fuel or Transportation Services for Fuel, fully executed by both Buyer and Seller.
- "Authority Limit Matrix" The Authority Limit Matrix (ALM) is a Company policy to be used in combination with the more detailed policies and procedures, indicating the minimum authority required for specific transactions. Its purpose is to provide an easy accessible source of information with respect to the approval process of LG&E and KU Energy LLC (LKE or the Company).
- "Award Recommendation" means the Company's internal approval process for the review and approval by Management of a recommended Fuel purchase and/or Transportation Services agreement.
- 4. "Chief Operating Officer" means the Company's principal officer responsible for business operations.
- 5. "Company" means Louisville Gas and Electric Company (LG&E) or Kentucky Utilities Company (KU) or both.
- 6. "Contract" is an Agreement for Fuel supply or Transportation Services with a fixed term typically in excess of one year.
- 7. "Contract Purchase" means any purchase of Fuel or Transportation Services by the Company where the terms and conditions are incorporated in the Contract, typically more than one year's duration.
- 8. "Director" means the Company's Director of Corporate Fuels and By-Products.
- 9. "Department" means the Company's Corporate Fuels and By-Products Department.
- 10. "Distressed Coal" means a limited amount of coal which may be purchased at a price below the current market price of similar quality coal.
- 11. "Emergency" means extraordinary conditions affecting Fuel production, transportation, or usage; including, but not limited to strikes, lockouts or other labor problems, embargoes, mining impediments, extreme market conditions and other problems affecting the production or transportation of Fuel, existing and/or forecasted extreme weather conditions, or any other conditions or circumstances that can be reasonably foreseen as impairing the continued supply of Fuel to the Company.
- 12. "Environmental Standards" mean the legal requirements for compliance with emission levels or other environmental protection requirements applicable to one or more of the Company's generating Units.
- 13. "Formal Solicitation" means the process of soliciting sealed bids for the supply of Fuel and/or Transportation Services.

- 14. "Fuel" means coal, fuel oil, or natural gas purchased by the Company for one of its generating stations.
- 15. "Informal Bid" means the process of considering unsolicited or solicited oral or written bids for Fuel purchases and/or Transportation Services.
- 16. "Joint Contract" is any contract that is written to supply Fuel and/or Transportation Services to both LG&E and KU. The allocation of fuel under a Joint Contract should be made pursuant to Section D.8. below.
- 17. "Purchase Order" is an Agreement for the supply of Fuel and/or Transportation Services with a term of typically one year or less.
- 18. "Sarbanes-Oxley" means the Sarbanes-Oxley Act of 2002 (also known as the Public Company Accounting Reform and Investor Protection Act).
- 19. "Spot Purchase" means any purchase of Fuel and/or Transportation Services by the Company where the terms and conditions are incorporated into a Purchase Order or Contract with a term typically of one year or less.
- 20. "Station" means one of the Company's generating stations.
- 21. "Supplier" means the seller who is a party to an Agreement and is obligated to comply with the Agreement's terms.
- 22. "Transportation Services" means the mode(s) of moving fuel from the point of purchase to the receiving station, including all related costs and activities (owned/leased equipment, maintenance and repair, barge fleeting services, blending, transloading, etc).
- 23. "Unit" means a generating unit at a Station.
- 24. "Vice President Energy Supply and Analysis" means the Company's principal officer to whom the Director of Corporate Fuels and By-Products reports and who in turn reports to the Chief Operating Officer.

B. <u>Fuel Procurement Policies:</u>

The Company's Fuel Procurement Policies and Procedures define the process to obtain an adequate and reliable supply of Fuel of sufficient quality that yields the lowest possible cost of electrical energy delivered to the Unit bus bar, consistent with the Company's obligation to provide adequate and reliable service to its customers, to meet operational and Environmental Standards, and to meet any other applicable legal requirements. The Company will use its best efforts to secure its Fuel supply at competitive prices through the use of the Formal Solicitation, Informal Bid, and negotiation process as described in this document. The awarding of Contracts and Purchase Orders will comply with internal business controls including the Authority Limit Matrices, Sarbanes Oxley compliance and Internal Audit Services' recommendations. The Company has detailed internal control procedures covering Contract Management,

Receipt of Goods and Payments (including weighing, sampling, and invoice payment), and Coal Inventory (includes Stockpile Surveys).

Implementation of this policy is of highest priority to the Company. The Director of Corporate Fuels and By-Products will review the Company's Fuel Procurement Policies and Procedures annually and update the policies as appropriate. The Corporate Fuels and By-Products Department shall be organized and staffed, and Fuel procurement procedures and administration shall be conducted, in an efficient and practical manner consistent with this policy. Fuel shall be purchased at competitive prices considering all material factors, including, but not limited to, quantity needed to maintain an adequate inventory, quality required to meet operating characteristics and Environmental Standards, resulting bus bar energy costs, reliability of the Supplier, diversity of Suppliers, diversity of fuel transportation modes, and meeting Emergency or other unusual circumstances affecting market conditions.

C. Organization:

- 1. <u>Department Structure.</u> The Department shall be organized and staffed to effectively administer the Company's Fuel procurement function.
- Organizational Responsibility. The Director is responsible for the operations of the Corporate Fuels and By-Products Department and reports to the Vice President Energy Supply and Analysis who is responsible for the Energy Marketing and Fuel Procurement functions. The Vice President Energy Supply and Analysis reports to the Chief Operating Officer who has the final responsibility for Fuel procurement. Other Departments may be utilized by the Corporate Fuels and By-Products Department to the extent the Director, Vice President Energy Supply and Analysis, and/or Chief Operating Officer consider advisable in the execution of the functions of the Department.
- 3. Approval Authority (Award Recommendation). An Award Recommendation will be prepared for all Agreements for the purchase of Fuel and Transportation Services. The Award Recommendation will be signed (as a minimum) by the Department's Fuel Contract Administrator, Manager LG&E and KU Fuels, Director of Corporate Fuels and By-Products, Plant Manager(s) of the Plant(s) that is (are) to receive the Fuel and/or Transportation Services, and the Vice President Power Production. Additional signatures may be required in accordance with the following Authority Limit Matrices:

Position	Maximum Term	Maximum Tenor	Maximum Notional \$ Amount
Manager LG&E and KU Fuels	1 year	2 years	\$10,000,000
Director, Corporate Fuels and By - Products	1 year	2 years	\$10,000,000
Vice President, Energy Supply and Analysis	3 years	4 years	\$20,000,000
Chief Operating Officer	5 years	6 years	\$25,000,000
LG&E and KU Energy LLC, Chief Financial Officer and Chief Executive Officer			\$180,000,000
LG&E and KU Energy LLC Investment Committee; LG&E and KU Energy LLC Board			Over \$180,000,000

- 4. <u>Reports.</u> The Director will instruct the Department to prepare, maintain and distribute various reports to management and others as deemed necessary for business operations and regulatory requirements.
- 5. Records. The Department shall maintain the following records:
 - a. <u>Open Files.</u> The Department shall maintain within the Department's office area, the following files for at least one year or longer as the Contract term or other conditions warrant:
 - (1) For each current Contract Supplier, Spot Purchase Supplier, or Transportation Services Provider, the files will contain:
 - (a) Contract documents, amendments, Purchase Orders and escalation documentation;
 - (b) General correspondence;
 - (c) Invoices and invoice verification data;
 - (d) Delivery records and quality analyses data;
 - (e) Field inspection reports and other data.
 - (2) A record of transportation units (railroad cars, barges, etc.) owned or leased by the Company.
 - (3) A list containing current Suppliers and known potential Suppliers of Fuel.
 - b. <u>Closed Files.</u> The Department shall maintain its closed files in accordance with the Company's record retention plan.

6. General Administrative Duties.

The Department shall subscribe to trade and industry publications and reports of governmental agencies concerning Fuel, transportation services, market information and prices. The Department shall use its best efforts to keep current on Fuel market conditions, prices and availability, and other developments relating to Fuel procurement.

D. Fuel Supply Procedures:

- 1. <u>Projections.</u> In conjunction with other departments of the Company, the Department shall prepare an annual projection of Fuel usage and delivered cost for each Station for the number of years required in the Company's planning process.
- 2. Contract/Spot Mix. Subject to the approvals as set forth herein, the Department shall recommend whether a Contract Purchase is advisable, considering the following factors: (a) the availability of adequate supplies from qualified Suppliers, (b) the need to have an adequate inventory committed for an existing Unit, changes to an existing Unit, or a planned new Unit, (c) the desire to maintain flexibility to market conditions and other factors affecting price and availability, (d) existing and anticipated Environmental Standards, and (e) such other factors as may reasonably affect the implementation of the Company's Fuel Procurement Policy.
- 3. <u>Current Requirements.</u> The Department shall continually review and analyze the data available to the Department in order to purchase Fuel in a timely manner to meet the requirements of the Company.
- 4. <u>Supplier Qualifications.</u> The Company shall select potential suppliers on the basis of the current supplier list, performance on past and current Fuel Contracts, market intelligence from industry research, and general knowledge of the industry. No potential qualified supplier shall be preferred or discriminated against because of race, religion, color, sex, age or marital status of the supplier or any of its representatives.

The supplier list is periodically reviewed by the Department to eliminate any suppliers that are known to have gone out of business and to also add any new or existing suppliers that were previously not on the supplier list. The Department not only reviews the membership lists of several coal associations (for example the Lexington Coal Exchange, the North Carolina Coal Institute, the American Coal Council, the National Mining Association, etc.) for new suppliers to add to the supplier list, but also adds new suppliers based upon field inspection visits. If a supplier is identified that is not on the current supplier list, the Department will add the supplier to the list for the next RFQ. Suppliers can be added to the supplier list either by request of the supplier or by the Department.

A notice of a Request for Quotation (RFQ) is published in several Coal Industry Newsletters. The RFQ is initially sent to the suppliers on the current supplier list and posted on the Company website. If a supplier that has not received the RFQ calls and asks to be put on the Department's supplier list they are automatically added to that list and a copy of the RFQ is sent to that supplier. During the evaluation of the bids, if a new

supplier has submitted a bid that is competitive, a new supplier evaluation will be performed to determine the capability of the supplier.

The supplier evaluation is done to determine if a supplier has the ability to deliver the quantity and quality of coal bid at the offered price. An actual site visit may be conducted. The information requested is based upon:

- The volume and term requested in the RFQ
- Past experience the Company has with the supplier
- The size and financial stability of the supplier
- Past experience the Company has with the type coal being offered
- Previous knowledge the Company has concerning the source operation (possibly under a different source name)

The data requested may include coal reserve data such as property maps and drill logs, mining plans, listing of all production equipment, coal preparation facilities such as coal preparation plants, sampling and analysis capabilities on site, mine staffing and organization, past production records, and status of permits. In addition, financial data will be requested and a supplier credit assessment will be performed in accordance with company policy. If all operational information, financial data, and other results from the site visit evaluation are acceptable, the supplier is approved.

5. Solicitations.

a. <u>Formal Solicitations</u>. The Company shall purchase its Fuel through sealed-bid solicitations. However, the Company reserves the right to request or accept Informal Bids for Fuel purchases as described in Section 5.b., when in its judgment, market conditions or plant conditions provide an opportunity to obtain Fuel more advantageously or more quickly than through the formal sealed-bid procedures. When the Company foregoes the Formal Solicitation process in favor of the Informal Bid procedure (Section 5.b. below), documentation shall be included in the resulting Contract or Purchase Order file describing the conditions.

A Request for Quotation ("RFQ") number will be assigned to each quotation package. The quotation must be returned to the company address as indicated on or before the due date and time, noting on the mailing label the RFQ number. The RFQ number will identify the quotation and ensure the quotation is opened according to the Company's Fuel Procurement Policies and Procedures.

The RFQ package shall contain the following minimum requirements:

- Instructions to Suppliers on the submission of an RFQ, including time and date the bids are due, correct labeling of bid envelope, signatures required, etc.
- Scope of supply Agreement
- Listing of typical information required from Supplier

Quantity and quality of coal being offered

Bid Price

Length of purchase

Transportation capabilities

Mining capabilities

Company terms and conditions

RFQ's shall be opened on or after the established due date and time within the presence of one or more witnesses from another Department. A numbered log shall be kept for logging in the receipt of each sealed envelope. This numbered log shall be signed by the witnesses noting the bids were all sealed prior to opening and were received prior to the due date and time. Those bids received after the designated time will be returned unopened to the bidder, unless the Director waives this provision.

Upon opening the sealed envelopes, each bid shall be given the log number assigned to it and initialed by the witnesses attending the bid opening.

All candidates shall be given the same opportunity and time frame to respond to the RFQ. Information clarifications shall be shared with all candidates. A copy of the RFQ and the original of the Suppliers' bid documents with evidence of the witness signatures shall be maintained within the Department.

The Department's Fuel Administrator is responsible for entering the bid data into the bid evaluation spreadsheet. The spreadsheet contains data fields such as:

Supplier's name (from bid)

Mine name and location (from bid)

Fuel loading point, river milepost or rail loadout (from bid)

Annual price in dollars per ton and cents/MMBtu (from bid)

Transportation cost (assigned by the Fuel Administrator)

Calculated total delivered cost (calculated by the Fuel Administrator)

Fuel technical specifications, such as:

BTU per pound

Sulfur content

Moisture content

Ash content

Chlorine content

Size

Arsenic content

Hardgrove Index

Other technical specifications as appropriate

The bids are secured in the Fuels Procurement area.

The Department's Manager LG&E and KU Fuels will independently verify that all bid data is correctly entered into the bid evaluation spreadsheet.

- b. Informal Bids. When, in the Company's judgment, Fuel can be obtained more advantageously or quickly for a particular plant through the Informal Bid procedures, the Department may solicit offers or accept unsolicited offers from Suppliers by telephone, electronic mail, facsimile or otherwise. Although these bids are typically used for Spot Purchases, circumstances may arise that would justify the recommendation of a long-term Contract from an Informal Bid process. The award recommendation for all such Informal Bid purchases shall include the Department's Fuel Sole Source Award Recommendation form with appropriate signatures.
- 6. Contract Awards. The Department shall review and analyze each Contract offer. The evaluation will include, but not necessarily be limited to, the items required by the Company to satisfy operational, Environmental Standards and economic criteria. Based upon the bid evaluation spreadsheet, the Department will evaluate and rank all quotations received by total delivered cost and lowest evaluated cost of electrical energy delivered to the Unit busbar. Other factors may be considered, including but not limited to, ranking reports generated by a software model that evaluates the impact of different coal qualities on Unit bus bar costs, supplier credit assessment, supplier past performance, diversity of region of supply, diversity of transportation mode, and diversity of suppliers. From this ranking, a short list of bidders may be selected from which the Department intends to conduct further discussions and/or negotiations. The short list may include unsolicited offers. The size of the short list will be determined solely at the

Department's discretion. The Department may engage in preliminary negotiations with Suppliers on the short list to determine which offers warrant further consideration. The objective of the negotiations shall be to reach Agreements with Suppliers that provide the Company with favorable terms and conditions, the lowest possible cost of electrical energy delivered to the Unit bus bar and reliable supply consistent with other qualifiers related to supplier reliability, existing and future Environmental Standards, transportation options, etc. A team may be formed to conduct negotiations with bidders on the short list. Generally, this team will consist of two or more representatives from the Department. The terms and conditions outlined in the quotation submitted to the Department by the bidder shall be the basis for beginning negotiations with each potential Supplier. A representative from the Legal Department shall review documents regarding terms and conditions.

The Department may in some instances perform investigations of the bidders to determine their ability to supply Fuel under the terms and conditions outlined in their proposals. These investigations may include site visits, mine operation audits, audits of financial information, test shipments, or other similar actions intended to determine the bidder's qualification as a Supplier. The Department shall verify the adequacy of the proposed source of supply for coal quantity and quality.

The recommended Supplier(s) shall be selected by the negotiating team based upon the evaluation criteria and the results of the negotiations. The Department's Fuel Administrator will prepare the contract Award Recommendation for approval as detailed in Section C.3. This recommendation will document the selection criteria and pertinent factors, and in circumstances where more than one company is selected, the recommendation shall describe the tonnage requirements and other responsibilities of each of the other recommended Suppliers.

- 7. <u>Spot Purchases.</u> Spot purchases may be made by the Company subject to the limit of authority stated in section C.3. In instances where there exists an opportunity to purchase Distressed Coal or other coal from an Informal Bid, the Manager LG&E and KU Fuels may recommend the purchase of such coal to the Director without soliciting proposals through the Formal Solicitation process. The Award Recommendation for all such Fuel purchases shall include the Department's Fuel Sole Source Award Recommendation form with appropriate signatures.
- 8. <u>Joint Contracts.</u> Joint Contracts shall be made at the discretion of the Department in order to capture economic benefit from the combined purchasing power of LG&E and KU. Such discretion will be based upon the Company's operating requirements, Environmental Standards, inventory levels, and the ability of the Company's power plants to burn similar fuels.
- 9. <u>Documentation.</u> Contracts and Purchase Orders shall be signed by the Supplier and the Company.

The following documents must be maintained:

- The final list of bidders
- A copy of the bid package

- The bidders' responses with witnesses' signatures
- The bid evaluation summary

E. Fuel Supply Agreement Administration:

- 1. <u>Compliance.</u> The Department shall review and analyze daily business and operational reports to properly administer all Fuel and Transportation Services Agreements. Coal weighing and sampling is conducted at each individual power plant site. Coal weights are measured in accordance with industry-accepted methods. Coal sampling and analysis is performed in accordance with Generation Services' System Laboratory procedures. These procedures have been developed in accordance with ASTM standards and cover coal sampling, coal sample preparation, coal sample identification, handling and shipping, and coal analysis on a parameter-by-parameter basis. Coal quantity and quality are reported to the Department through Aligne (the fuels management system).
- 2. <u>Amendments.</u> A Contract/Purchase Order shall not be materially amended except after analysis by the Department, recommendation of the Director, review by the Legal Department and in accordance with the Authority Matrices in C.3.
- 3. <u>Contract Administration.</u> The Department shall maintain the necessary data to administer the Contracts. Every Supplier's request for a change outside the existing terms, conditions, or prices must be written and supported by adequate data in conformity with the Contract. Each request shall be analyzed by the Department against the Contract provisions, and reported with recommendations to the Director. If the parties do not come to agreement on the new terms, negotiations between the Supplier and Company, as dictated by the Contract's terms, shall be the primary method of resolving the issue.
- 4. <u>Supplier's Relief.</u> Any Supplier's request or claim for relief from compliance with any provision of the Contract's terms such as Force Majeure conditions, quality specifications, approval of alternate sources, etc, must be in writing with an adequate description of conditions warranting nonperformance. Each request or claim shall be reviewed by the Director and the Company's Legal Department.
- 5. <u>Inspections.</u> The Director shall cause inspections of mining and other facilities of a Contract coal Supplier or other Fuel supply facilities as part of Contract Administration.
- 6. Emission Allowance Management. All allowances offered in connection with supplying fuel for either LG&E or KU generating Units will be managed in accordance with the Company's environmental, utility accounting, and rates and regulatory policies and procedures. The appropriate way to accommodate any additional allowances (offered in conjunction with supplying fuel) will be dependent on the quantity and vintage of the allowances offered.

F. Fuel Supply Agreement Enforcement:

- 1. <u>General Enforcement Policy.</u> Supplier obligations under Fuel supply Agreements shall be enforced by the Company to ensure Supplier compliance with the Company's overall procurement policy and to provide for the continuing supply of Fuel.
- Department Responsibility. Whenever it is determined that a shipment does not meet the Fuel Supply Agreement terms or a Supplier is not complying with the Fuel Supply Agreement terms, the Department shall inform the Supplier and direct that subsequent shipments be in compliance.

G. Legal Assistance:

The Department shall have access to, and may receive advice from, the Legal Department on all matters relating to Fuel procurement, administration and enforcement.

H. Inventory Levels:

The Company has an obligation to ensure the availability of continuous reliable service to its customers. Decisions affecting Fuel inventory shall be responsive to this obligation.

The Company strives to maintain an adequate inventory to ensure service reliability while allowing for enough flexibility so inventory levels can be responsive to known and anticipated changes in conditions and minimize the risks of unforeseen conditions. Inventory ranges are established based upon forecasted plant utilization, deliverability risks related to availability of truck, rail and barge capacity and associated transportation infrastructure, fuel quality requirements of the plants, the position of the plant in the dispatch order, risk of market supply-demand imbalance, and the ability to conduct quick spot market transactions. The general level of inventory is adjusted to meet anticipated conditions (i.e. summer/winter peak load, river lock outages, Unit outages, fuel unloading system outages, etc).

Coal inventories are reported monthly in the Department's Monthly Fuels Management Report. Regular inventory reports are made to senior management and inventory is reviewed by the Enterprise Risk Management Committee to ensure compliance with internal policies.

I. Emergency Procurement:

Any one or more of the procedures described herein may be waived by the Vice President - Energy Supply and Analysis, whenever, Fuel must be purchased due to extraordinary conditions such as strikes, lockouts or other labor problems affecting Fuel production or transportation, embargoes, mining or other problems affecting production

or transportation, existing and/or forecast extreme weather conditions, or any other conditions or circumstances that can be reasonably foreseen as impairing the continued supply of Fuel to the Company. When such a purchase is made, documentation of circumstances will be included in the Contract or Purchase Order file.

J. Transportation Services Contracts:

Transportation Services bids shall be requested and Contracts negotiated whenever appropriate. A tariff may be used in lieu of a Contract Agreement if conditions warrant. Consideration shall generally be given to the following factors when considering the need or desirability to make a Transportation Services Agreement:

- plant requirements;
- the locations of potential Fuel Suppliers;
- the most desirable transportation modes available;
- coal unloading and handling system constraints;
- existing transportation routes and transfer points between Suppliers and Company generating Stations;
- desirability of maintaining flexibility with different modes of transportation;
- economics:
- other factors which may affect the delivery of Fuel to the Company's generating Stations.

The process of selecting and contracting for Transportation Services will vary with the mode of transportation being sought. For barge and truck deliveries, the Department will generally use the Company's accepted competitive bidding procedures. In instances where only one rail carrier may serve a plant, direct negotiations with the rail carriers serving a particular coal source may be initiated.

The selections of a transportation Supplier will generally be based upon, but not necessarily limited to, cost, reliability, coal unloading and handling system constraints, and other factors. Transportation Service Agreements must be in writing and signed by all parties, unless provided under an approved tariff. The approval procedures set forth in Section C.3 shall be used for the approval of all Transportation Contracts.

K. Other Fuels/Bulk Commodities/Service Contracts:

Bulk Commodity Supplies (including, but not limited to scrubber reagent, ammonia, hydrated lime, Trona and activated carbon) to be used by the Company's generating Stations and laboratory services, weighing and sampling services, stockpile surveys, governmental imposition claims assessment and coal pricing information services shall be requested and Contracts negotiated by Fuels, whenever appropriate. Associated transportation services related to Section J. such as railcar leases, railcar maintenance and repair, barge maintenance and repair, barge fleeting services, coal blending, and coal transloading services shall also be requested and Contracts negotiated by Fuels whenever appropriate. All of these Bulk Commodity/Service Contracts will abide by the Approval Authority Limits as set forth in Section C.3. above.

Natural Gas. Natural gas is procured on an "as-needed" basis due to the unpredictability of use. The need for natural gas fired generation is determined by many real-time variables; including, but not limited to, weather, customer demand, generation availability, transmission availability, and market prices. Purchases of natural gas are typically conducted in the day-ahead or intra-day spot market. The Power Supply Department is responsible for the purchase of natural gas and associated pipeline transportation.

<u>Fuel Oil.</u> Fuel oil is procured on an "as-needed" basis due to the infrequency of use of this Fuel and the nature of the oil market. The responsibility for fuel oil procurement varies. When the need for fuel oil arises, the Department and/or the Power Plants will solicit vendors for offers. Orders are assigned on the basis of lowest delivered cost and the ability to fill the order. Solicitation results are documented in the Department for purchases made by the Department.

L. Affiliate Transactions:

Transactions and relationships between the Company and its unregulated affiliates are governed by four governmental agencies: the Kentucky Public Service Commission, the Federal Energy Regulatory Commission, the Securities and Exchange Commission, and as regards Kentucky Utilities Company, the Virginia State Commission.

The Company may purchase coal from an affiliate at the lesser of cost or market, if such a transfer is reasonably required by the Company to meet an Emergency and the Company believes in good faith that, under the circumstances, the transaction will be to the advantage of the Company. At the time of the affiliate transaction, the Company will document through the award recommendation process, the pricing basis and the justification for the affiliate transaction. The Company shall report any such purchase in its next recurrent report due to the Commission (Form A or Form B filling, or their successor(s)). All such affiliate transactions must as a minimum, meet the requirements of the Affiliate Transaction Overview, dated May 26, 2003, including the requirements of Kentucky Revised Statutes Chapter 278, Kentucky Public Service Commission Sections 2201 through 2219; the Securities and Exchange Commission, Title 17 – Commodity and Security Rules, Part 250 – General Rules and Regulations; and Virginia State

Corporation Commission, Code of Virginia Title 56 – Chapter 4 and any other applicable affiliate transaction rules.

M. Ethics and Conduct:

The Company recognizes the importance of following the Company's Standards of Integrity to guide the conduct of the Corporate Fuels and By-Products Department in the performance of its duties and responsibilities:

The Department shall endeavor to serve the best interests of the Company and its customers in the performance of the Department's duties and responsibilities.

Fuels staff shall adhere to the ethical standards and policies of the Company.

Each employee involved with the procurement of Fuel will be required to promptly disclose, in writing, any actual or potential conflicts of interest to their supervisor and the LG&E/KU Compliance Department.

N. Penalties For Noncompliance

All Fuels employees are required to familiarize themselves with the Fuels Policies and Procedures and acknowledge through a process established by management, that they have received, read, understand, accept, and will act in accordance with this document. Failure to comply with any term of the policy may result in disciplinary action, up to and including discharge.

Key Contact: Manager - Fuels Accounting and Administration

References: Authority Limit Matrix, Records Management and Retention Policy, Standards of Integrity, Reliability Standards, and Affiliate Restriction Regulations

Administrative Responsibility: Director, Corporate Fuels and By- Products

Originally issued at Louisville, Kentucky, the 10th day of February, 2003.

Revised effective March 1, 2013.

Louisville Gas and Electric Company

Kentucky Utilities Company

Paul Thompson

Chief Operating Officer

David Sinclair

Vice President – Energy Supply and Analysis

A.		<u>Definitions:</u>	
	<u>1.</u>	"Agreement" means a legally binding document, in which one party agrees to sell and the other agrees to buy Fuel or Transportation Services for Fuel, fully executed by both Buyer and Seller.	Deleted: 1
	<u>2.</u>	"Authority Limit Matrix" – The Authority Limit Matrix (ALM) is a Company policy to be used in combination with the more detailed policies and procedures, indicating the minimum authority required for specific transactions. Its purpose is to provide an easy accessible source of information with respect to the approval process of LG&E and KU Energy LLC (LKE or the Company).	
	<u>3.</u>	_"Award_Recommendation" means the Company's internal approval process for the review and approval by Management of a recommended Fuel purchase and/or Transportation Services agreement.	Deleted: ¶
	<u>4.</u>	"Chief Operating Officer" means the Company's principal officer responsible for business operations.	
	<u>5.</u>	_"Company" means Louisville Gas and Electric Company (LG&E) or Kentucky Utilities Company (KU) or both.	Deleted: 3.
	<u>6.</u>	"Contract" is an Agreement for Fuel supply or Transportation Services with a fixed term typically in excess of one year.	Deleted: 4
	<u>7. </u>	"Contract Purchase" means any purchase of Fuel or Transportation Services by the Company where the terms and conditions are incorporated in the Contract, typically more than one year's duration.	
	<u>8.</u>	"Director" means the Company's Director of Corporate Fuels and By-Products.	Deleted: ¶
	<u>9.</u>	_"Department" means the Company's Corporate Fuels and By-Products Department.	
	<u>10.</u>		Deleted: ¶
	11.	"Emergency" means extraordinary conditions affecting Fuel production, transportation, or usage; including, but not limited to strikes, lockouts or other labor problems, embargoes, mining impediments, extreme market conditions and other problems affecting the production or transportation of Fuel, existing and/or forecasted extreme weather conditions, or any other conditions or circumstances that can be reasonably foreseen as impairing the continued supply of Fuel to the Company.	
	12.	"Environmental Standards" mean the legal requirements for compliance with emission levels or other environmental protection requirements applicable to one or more of the Company's generating Units.	Deleted: ¶

13. "Formal Solicitation" means the process of soliciting sealed bids for the supply of Fuel and/or Transportation Services.

- 14. "Fuel" means coal, fuel oil, or natural gas purchased by the Company for one of its generating stations.
- 15. "Informal Bid" means the process of considering unsolicited or solicited oral or written bids for Fuel purchases and/or Transportation Services.
- 16. "Joint Contract" is any contract that is written to supply Fuel and/or Transportation Services to both LG&E and KU. The allocation of fuel under a Joint Contract should be made pursuant to Section D.8. below.
- <u>17.</u> "Purchase Order" is an Agreement for the supply of Fuel and/or Transportation Services with a term of typically one year or less.
- 18. "Sarbanes-Oxley" means the Sarbanes-Oxley Act of 2002 (also known as the Public Company Accounting Reform and Investor Protection Act).
- 19. "Spot Purchase" means any purchase of Fuel and/or Transportation Services by the Company where the terms and conditions are incorporated into a Purchase Order or Contract with a term typically of one year or less.

Deleted: <#>"Senior Vice President -Energy Services" means the Company's principal officer responsible for power generation...¶

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- 20. "Station" means one of the Company's generating stations.
- 21. "Supplier" means the seller who is a party to an Agreement and is obligated to comply with the Agreement's terms.

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22. "Transportation Services" means the mode(s) of moving fuel from the point of purchase to the receiving station, including all related costs and activities (owned/leased equipment, maintenance and repair, barge fleeting services, blending, transloading, etc).

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23. "Unit" means a generating unit at a Station.

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24. "Vice President – Energy Supply and Analysis" means the Company's principal officer to whom the Director of Corporate Fuels and By-Products reports and who in turn reports to the Chief Operating Officer.

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Deleted: Marketing

Deleted: Senior Vice President – Energy Services

B. Fuel Procurement Policies:

The Company's Fuel Procurement Policies and Procedures define the process to obtain an adequate and reliable supply of Fuel of sufficient quality that yields the lowest possible cost of electrical energy delivered to the Unit bus bar, consistent with the Company's obligation to provide adequate and reliable service to its customers, to meet operational and Environmental Standards, and to meet any other applicable legal requirements. The Company will use its best efforts to secure its Fuel supply at competitive prices through the use of the Formal Solicitation, Informal Bid, and negotiation process as described in this document. The awarding of Contracts and Purchase Orders will comply with internal business controls including the Authority Limit Matrices, Sarbanes Oxley compliance and Internal Audit Services' recommendations. The Company has detailed internal control procedures covering Contract Management,

Deleted: Statement of Trading,

Deleted: Demand Analysis,

Receipt of Goods and Payments (including weighing, sampling, and invoice payment), and Coal Inventory (includes Stockpile Surveys).

Implementation of this policy is of highest priority to the Company. The Director of Corporate Fuels and By-Products will review the Company's Fuel Procurement Policies and Procedures annually and update the policies as appropriate. The Corporate Fuels and By-Products Department shall be organized and staffed, and Fuel procurement procedures and administration shall be conducted, in an efficient and practical manner consistent with this policy. Fuel shall be purchased at competitive prices considering all material factors, including, but not limited to, quantity needed to maintain an adequate inventory, quality required to meet operating characteristics and Environmental Standards, resulting bus bar energy costs, reliability of the Supplier, diversity of Suppliers, diversity of fuel transportation modes, and meeting Emergency or other unusual circumstances affecting market conditions.

Deleted: Supplier Assessment and Rating,

Deleted: Coal

Deleted: Complaint Management,

Deleted: Management, and

C. Organization:

- 1. Department Structure. The Department shall be organized and staffed to effectively administer the Company's Fuel procurement function.
- 2. Organizational Responsibility. The Director is responsible for the operations of the Corporate Fuels and By-Products Department and reports to the Vice President -Energy Supply and Analysis who is responsible for the Energy Marketing and Fuel Procurement functions. The Vice President - Energy Supply and Analysis reports to the Chief Operating Officer who has the final responsibility for Fuel procurement. Other Departments may be utilized by the Corporate Fuels and By-Products Department to the extent the Director, Vice President - Energy Supply and Analysis, and/or Chief Operating Officer consider advisable in the execution of the functions of the Department.
- 3, Approval Authority (Award Recommendation). An Award Recommendation will be prepared for all Agreements for the purchase of Fuel and Transportation Services. The Award Recommendation will be signed (as a minimum) by the Department's Fuel Contract Administrator, Manager LG&E and KU Fuels, Director of Corporate Fuels and By-Products, Plant Manager(s) of the Plant(s) that is (are) to receive the Fuel and/or Transportation Services, and the Vice President - Power Production. Additional signatures may be required in accordance with the following Authority Limit Matrices:

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Deleted: Senior Vice President - Energy Services

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Deleted: Senior Vice President - Energy

Position	Maximum Term	Maximum Tenor	Maximum Notional \$ Amount		
Manager LG&E and KU Fuels	1 year	2 years	\$10,000,000		
Director, Corporate Fuels and	1 year	2 years	\$10,000,000		
By - Products					
Vice President, Energy Supply	3 years	4, years	\$20,000,000		Deleted: 3
and Analysis,					Deleted: Marketing
Chief Operating Officer,	5 years	<u>6</u> , years	\$25,000,000	L.	
LG&E and KU Energy LLC,	▼	-	\$180,000,000	1	Deleted: Sr. Vice
Chief Financial Officer and				11/1	Deleted: President, Energy Services
Chief Executive Officer				1,1	Deleted: 5
LG&E and KU Energy LLC			Over \$180,000,000	','	Deleted: Over 5 years
Investment Committee; LG&E				'	
and KU Energy LLC Board		<u> </u>			Deleted: Over 5 years

- 4. <u>Reports.</u> The Director will instruct the Department to prepare, maintain and distribute various reports to management and others as deemed necessary for business operations and regulatory requirements.
- 5. Records. The Department shall maintain the following records:
 - a. <u>Open Files.</u> The Department shall maintain within the Department's office area, the following files for at least one year or longer as the Contract term or other conditions warrant:
 - (1) For each current Contract Supplier, Spot Purchase Supplier, or Transportation Services Provider, the files will contain:
 - (a) Contract documents, amendments, Purchase Orders and escalation documentation;
 - (b) General correspondence;
 - (c) Invoices and invoice verification data;
 - (d) Delivery records and quality analyses data;
 - (e) Field inspection reports and other data.
 - (2) A record of transportation units (railroad cars, barges, etc.) owned or leased by the Company.
 - (3) A list containing current Suppliers and known potential Suppliers of Fuel.
 - b. <u>Closed Files.</u> The Department shall maintain its closed files in accordance with the Company's record retention plan.
- 6. <u>General Administrative Duties.</u>

The Department shall subscribe to trade and industry publications and reports of governmental agencies concerning Fuel, transportation services, market information and prices. The Department shall use its best efforts to keep current on Fuel market conditions, prices and availability, and other developments relating to Fuel procurement.

D. Fuel Supply Procedures:

- 1. <u>Projections.</u> In conjunction with other departments of the Company, the Department shall prepare an annual projection of Fuel usage and delivered cost for each Station for the number of years required in the Company's planning process.
- 2. Contract/Spot Mix. Subject to the approvals as set forth herein, the Department shall recommend whether a Contract Purchase is advisable, considering the following factors: (a) the availability of adequate supplies from qualified Suppliers, (b) the need to have an adequate inventory committed for an existing Unit, changes to an existing Unit, or a planned new Unit, (c) the desire to maintain flexibility to market conditions and other factors affecting price and availability, (d) existing and anticipated Environmental Standards, and (e) such other factors as may reasonably affect the implementation of the Company's Fuel Procurement Policy.
- 3. <u>Current Requirements.</u> The Department shall continually review and analyze the data available to the Department in order to purchase Fuel in a timely manner to meet the requirements of the Company.
- 4. <u>Supplier Qualifications.</u> The Company shall select potential suppliers on the basis of the current supplier list, performance on past and current Fuel Contracts, market intelligence from industry research, and general knowledge of the industry. No potential qualified supplier shall be preferred or discriminated against because of race, religion, color, sex, age or marital status of the supplier or any of its representatives.

The supplier list is periodically reviewed by the Department to eliminate any suppliers that are known to have gone out of business and to also add any new or existing suppliers that were previously not on the supplier list. The Department not only reviews the membership lists of several coal associations (for example the Lexington Coal Exchange, the North Carolina Coal Institute, the American Coal Council, the National Mining Association, etc.) for new suppliers to add to the supplier list, but also adds new suppliers based upon field inspection visits. If a supplier is identified that is not on the current supplier list, the Department will add the supplier to the list for the next RFQ. Suppliers can be added to the supplier list either by request of the supplier or by the Department.

A notice of a Request for Quotation (RFQ) is published in several Coal Industry Newsletters. The RFQ is initially sent to the suppliers on the current supplier list and posted on the Company website. If a supplier that has not received the RFQ calls and asks to be put on the Department's supplier list they are automatically added to that list and a copy of the RFQ is sent to that supplier. During the evaluation of the bids, if a new supplier has submitted a bid that is competitive, a new supplier evaluation will be performed to determine the capability of the supplier.

The supplier evaluation is done to determine if a supplier has the ability to deliver the quantity and quality of coal bid at the offered price. An actual site visit may be conducted. The information requested is based upon:

- The volume and term requested in the RFQ
- Past experience the Company has with the supplier
- The size and financial stability of the supplier
- Past experience the Company has with the type coal being offered
- Previous knowledge the Company has concerning the source operation (possibly under a different source name)

The data requested may include coal reserve data such as property maps and drill logs, mining plans, listing of all production equipment, coal preparation facilities such as coal preparation plants, sampling and analysis capabilities on site, mine staffing and organization, past production records, and status of permits. In addition, financial data will be requested and a supplier credit assessment will be performed in accordance with company policy. If all operational information, financial data, and other results from the site visit evaluation are acceptable, the supplier is approved.

5. Solicitations.

a. <u>Formal Solicitations</u>. The Company shall purchase its Fuel through sealed-bid solicitations. However, the Company reserves the right to request or accept Informal Bids for Fuel purchases as described in Section 5.b., when in its judgment, market conditions or plant conditions provide an opportunity to obtain Fuel more advantageously or more quickly than through the formal sealed-bid procedures. When the Company foregoes the Formal Solicitation process in favor of the Informal Bid procedure (Section 5.b. below), documentation shall be included in the resulting Contract or Purchase Order file describing the conditions.

A Request for Quotation ("RFQ") number will be assigned to each quotation package. The quotation must be returned to the company address as indicated on or before the due date and time, noting on the mailing label the RFQ number. The RFQ number will identify the quotation and ensure the quotation is opened according to the Company's Fuel Procurement Policies and Procedures.

The RFQ package shall contain the following minimum requirements:

- Instructions to Suppliers on the submission of an RFQ, including time and date the bids are due, correct labeling of bid envelope, signatures required, etc.
- Scope of supply Agreement

Listing of typical information required from Supplier

Quantity and quality of coal being offered

Bid Price

Length of purchase

Transportation capabilities

Mining capabilities

· Company terms and conditions

RFQ's shall be opened on or after the established due date and time within the presence of one or more witnesses from another Department. A numbered log shall be kept for logging in the receipt of each sealed envelope. This numbered log shall be signed by the witnesses noting the bids were all sealed prior to opening and were received prior to the due date and time. Those bids received after the designated time will be returned unopened to the bidder, unless the Director waives this provision.

Upon opening the sealed envelopes, each bid shall be given the log number assigned to it and initialed by the witnesses attending the bid opening.

All candidates shall be given the same opportunity and time frame to respond to the RFQ. Information clarifications shall be shared with all candidates. A copy of the RFQ and the original of the Suppliers' bid documents with evidence of the witness signatures shall be maintained within the Department.

The Department's Fuel Administrator is responsible for entering the bid data into the bid evaluation spreadsheet. The spreadsheet contains data fields such as:

Supplier's name (from bid)

Mine name and location (from bid)

Fuel loading point, river milepost or rail loadout (from bid)

Annual price in dollars per ton and cents/MMBtu (from bid)

Transportation cost (assigned by the Fuel Administrator)

Calculated total delivered cost (calculated by the Fuel Administrator)

Fuel technical specifications, such as:

BTU per pound

Sulfur content

Moisture content

Ash content

Chlorine content

Size

Arsenic content

Hardgrove Index

Other technical specifications as appropriate

The bids are secured in the Fuels Procurement area.

The Department's Manager LG&E and KU Fuels will independently verify that all bid data is correctly entered into the bid evaluation spreadsheet.

- b. <u>Informal Bids</u>. When, in the Company's judgment, Fuel can be obtained more advantageously or quickly for a particular plant through the Informal Bid procedures, the Department may solicit offers or accept unsolicited offers from Suppliers by telephone, electronic mail, facsimile or otherwise. Although these bids are typically used for Spot Purchases, circumstances may arise that would justify the recommendation of a long-term Contract from an Informal Bid process. The award recommendation for all such Informal Bid purchases shall include the Department's Fuel Sole Source Award Recommendation form with appropriate signatures.
- 6. Contract Awards. The Department shall review and analyze each Contract offer. The evaluation will include, but not necessarily be limited to, the items required by the Company to satisfy operational, Environmental Standards and economic criteria. Based upon the bid evaluation spreadsheet, the Department will evaluate and rank all quotations received by total delivered cost and lowest evaluated cost of electrical energy delivered to the Unit busbar. Other factors may be considered, including but not limited to, ranking reports generated by a software model that evaluates the impact of different coal qualities on Unit bus bar costs, supplier credit assessment, supplier past performance, diversity of region of supply, diversity of transportation mode, and diversity of suppliers. From this ranking, a short list of bidders may be selected from which the Department intends to conduct further discussions and/or negotiations. The short list may include unsolicited offers. The size of the short list will be determined solely at the Department's discretion. The Department may engage in preliminary negotiations with Suppliers on the short list to determine which offers warrant further consideration. The objective of the negotiations shall be to reach Agreements with Suppliers that provide the Company with favorable terms and conditions, the lowest possible cost of electrical energy delivered to the Unit bus bar and reliable supply consistent with other qualifiers related to supplier reliability, existing and future Environmental Standards, transportation

options, etc. A team may be formed to conduct negotiations with bidders on the short list. Generally, this team will consist of two or more representatives from the Department. The terms and conditions outlined in the quotation submitted to the Department by the bidder shall be the basis for beginning negotiations with each potential Supplier. A representative from the Legal Department shall review documents regarding terms and conditions.

The Department may in some instances perform investigations of the bidders to determine their ability to supply Fuel under the terms and conditions outlined in their proposals. These investigations may include site visits, mine operation audits, audits of financial information, test shipments, or other similar actions intended to determine the bidder's qualification as a Supplier. The Department shall verify the adequacy of the proposed source of supply for coal quantity and quality.

The recommended Supplier(s) shall be selected by the negotiating team based upon the evaluation criteria and the results of the negotiations. The Department's Fuel Administrator will prepare the contract Award Recommendation for approval as detailed in Section C.3. This recommendation will document the selection criteria and pertinent factors, and in circumstances where more than one company is selected, the recommendation shall describe the tonnage requirements and other responsibilities of each of the other recommended Suppliers.

- 7. <u>Spot Purchases.</u> Spot purchases may be made by the Company subject to the limit of authority stated in section C.3. In instances where there exists an opportunity to purchase Distressed Coal or other coal from an Informal Bid, the Manager LG&E and KU Fuels may recommend the purchase of such coal to the Director without soliciting proposals through the Formal Solicitation process. The Award Recommendation for all such Fuel purchases shall include the Department's Fuel Sole Source Award Recommendation form with appropriate signatures.
- 8. <u>Joint Contracts.</u> Joint Contracts shall be made at the discretion of the Department in order to capture economic benefit from the combined purchasing power of LG&E and KU. Such discretion will be based upon the Company's operating requirements, Environmental Standards, inventory levels, and the ability of the Company's power plants to burn similar fuels.
- 9. <u>Documentation.</u> Contracts and Purchase Orders shall be signed by the Supplier and the Company.

The following documents must be maintained:

- · The final list of bidders
- A copy of the bid package
- The bidders' responses with witnesses' signatures
- · The bid evaluation summary

E. Fuel Supply Agreement Administration:

- 1. <u>Compliance.</u> The Department shall review and analyze daily business and operational reports to properly administer all Fuel and Transportation Services Agreements. Coal weighing and sampling is conducted at each individual power plant site. Coal weights are measured in accordance with industry-accepted methods. Coal sampling and analysis is performed in accordance with Generation Services' System Laboratory procedures. These procedures have been developed in accordance with ASTM standards and cover coal sampling, coal sample preparation, coal sample identification, handling and shipping, and coal analysis on a parameter-by-parameter basis. Coal quantity and quality are reported to the Department through <u>Aligne</u> (the fuels management system).
- 2. <u>Amendments.</u> A Contract/Purchase Order shall not be materially amended except after analysis by the Department, recommendation of the Director, review by the Legal Department and in accordance with the Authority Matrices in C.3.
- 3. <u>Contract Administration.</u> The Department shall maintain the necessary data to administer the Contracts. Every Supplier's request for a change outside the existing terms, conditions, or prices must be written and supported by adequate data in conformity with the Contract. Each request shall be analyzed by the Department against the Contract provisions, and reported with recommendations to the Director. If the parties do not come to agreement on the new terms, negotiations between the Supplier and Company, as dictated by the Contract's terms, shall be the primary method of resolving the issue.
- 4. <u>Supplier's Relief.</u> Any Supplier's request or claim for relief from compliance with any provision of the Contract's terms such as Force Majeure conditions, quality specifications, approval of alternate sources, etc, must be in writing with an adequate description of conditions warranting nonperformance. Each request or claim shall be reviewed by the Director and the Company's Legal Department.
- 5. <u>Inspections.</u> The Director shall cause inspections of mining and other facilities of a Contract coal Supplier or other Fuel supply facilities as part of Contract Administration.
- 6. <u>Emission Allowance Management</u>. All allowances offered in connection with supplying fuel for either LG&E or KU generating Units will be managed in accordance with the Company's environmental, utility accounting, and rates and regulatory policies and procedures. The appropriate way to accommodate any additional allowances (offered in conjunction with supplying fuel) will be dependent on the quantity and vintage of the allowances offered.

F. <u>Fuel Supply Agreement Enforcement:</u>

1. <u>General Enforcement Policy.</u> Supplier obligations under Fuel supply Agreements shall be enforced by the Company to ensure Supplier compliance with the Company's overall procurement policy and to provide for the continuing supply of Fuel.

2. <u>Department Responsibility.</u> Whenever it is determined that a shipment does not meet the Fuel Supply Agreement terms or a Supplier is not complying with the Fuel Supply Agreement terms, the Department shall inform the Supplier and direct that subsequent shipments be in compliance.

G. Legal Assistance:

The Department shall have access to, and may receive advice from, the Legal Department on all matters relating to Fuel procurement, administration and enforcement.

H. <u>Inventory Levels:</u>

The Company has an obligation to ensure the availability of continuous reliable service to its customers. Decisions affecting Fuel inventory shall be responsive to this obligation.

The Company strives to maintain an adequate inventory to ensure service reliability while allowing for enough flexibility so inventory levels can be responsive to known and anticipated changes in conditions and minimize the risks of unforeseen conditions. Inventory ranges are established based upon forecasted plant utilization, deliverability risks related to availability of truck, rail and barge capacity and associated transportation infrastructure, fuel quality requirements of the plants, the position of the plant in the dispatch order, risk of market supply-demand imbalance, and the ability to conduct quick spot market transactions. The general level of inventory is adjusted to meet anticipated conditions (i.e. summer/winter peak load, river lock outages, Unit outages, fuel unloading system outages, etc).

Coal inventories are reported monthly in the Department's Monthly Fuels Management Report. Regular inventory reports are made to senior management and inventory is reviewed by the Enterprise Risk Management Committee to ensure compliance with internal policies.

Deleted: Oversight

I. <u>Emergency Procurement:</u>

Any one or more of the procedures described herein may be waived by the Vice President - Energy <u>Supply and Analysis</u>, whenever, Fuel must be purchased due to extraordinary conditions such as strikes, lockouts or other labor problems affecting Fuel production or transportation, embargoes, mining or other problems affecting production or transportation, existing and/or forecast extreme weather conditions, or any other conditions or circumstances that can be reasonably foreseen as impairing the continued supply of Fuel to the Company. When such a purchase is made, documentation of circumstances will be included in the Contract or Purchase Order file.

Deleted: Marketing

J. Transportation Services Contracts:

Transportation Services bids shall be requested and Contracts negotiated whenever appropriate. A tariff may be used in lieu of a Contract Agreement if conditions warrant. Consideration shall generally be given to the following factors when considering the need or desirability to make a Transportation Services Agreement:

- plant requirements;
- the locations of potential Fuel Suppliers;
- the most desirable transportation modes available;
- coal unloading and handling system constraints;
- existing transportation routes and transfer points between Suppliers and Company generating Stations;
- desirability of maintaining flexibility with different modes of transportation;
- · economics:
- other factors which may affect the delivery of Fuel to the Company's generating Stations.

The process of selecting and contracting for Transportation Services will vary with the mode of transportation being sought. For barge and truck deliveries, the Department will generally use the Company's accepted competitive bidding procedures. In instances where only one rail carrier may serve a plant, direct negotiations with the rail carriers serving a particular coal source may be initiated.

The selections of a transportation Supplier will generally be based upon, but not necessarily limited to, cost, reliability, coal unloading and handling system constraints, and other factors. Transportation Service Agreements must be in writing and signed by all parties, unless provided under an approved tariff. The approval procedures set forth in Section C.3 shall be used for the approval of all Transportation Contracts.

K. Other Fuels/Bulk Commodities/Service Contracts:

Bulk Commodity Supplies (including, but not limited to scrubber reagent, ammonia, hydrated lime, Trona and activated carbon) to be used by the Company's generating Stations and laboratory services, weighing and sampling services, stockpile surveys, governmental imposition claims assessment and coal pricing information services shall be requested and Contracts negotiated by Fuels, whenever appropriate. Associated transportation services related to Section J. such as railcar leases, railcar maintenance and repair, barge fleeting services, coal blending, and

coal transloading services shall also be requested and Contracts negotiated by Fuels whenever appropriate. All of these Bulk Commodity/Service Contracts will abide by the Approval Authority Limits as set forth in Section C.3. above.

Natural Gas. Natural gas is procured on an "as-needed" basis due to the unpredictability of use. The need for natural gas fired generation is determined by many real-time variables; including, but not limited to, weather, customer demand, generation availability, transmission availability, and market prices. Purchases of natural gas are typically conducted in the day-ahead or intra-day spot market. The Power Supply Department is responsible for the purchase of natural gas and associated pipeline transportation.

<u>Fuel Oil.</u> Fuel oil is procured on an "as-needed" basis due to the infrequency of use of this Fuel and the nature of the oil market. The responsibility for fuel oil procurement varies. When the need for fuel oil arises, the Department and/or the Power Plants will solicit vendors for offers. Orders are assigned on the basis of lowest delivered cost and the ability to fill the order. Solicitation results are documented in the Department for purchases made by the Department.

L. Affiliate Transactions:

Transactions and relationships between the Company and its unregulated affiliates are governed by four governmental agencies: the Kentucky Public Service Commission, the Federal Energy Regulatory Commission, the Securities and Exchange Commission, and as regards Kentucky Utilities Company, the Virginia State Commission.

The Company may purchase coal from an affiliate at the lesser of cost or market, if such a transfer is reasonably required by the Company to meet an Emergency and the Company believes in good faith that, under the circumstances, the transaction will be to the advantage of the Company. At the time of the affiliate transaction, the Company will document through the award recommendation process, the pricing basis and the justification for the affiliate transaction. The Company shall report any such purchase in its next recurrent report due to the Commission (Form A or Form B filing, or their successor(s)). All such affiliate transactions must as a minimum, meet the requirements of the Affiliate Transaction Overview, dated May 26, 2003, including the requirements of Kentucky Revised Statutes Chapter 278, Kentucky Public Service Commission Sections 2201 through 2219; the Securities and Exchange Commission, Title 17 – Commodity and Security Rules, Part 250 – General Rules and Regulations; and Virginia State Corporation Commission, Code of Virginia Title 56 – Chapter 4 and any other applicable affiliate transaction rules.

Deleted: Regulated Trading & Dispatch

M. Ethics and Conduct:

The Company recognizes the importance of following the Company's <u>Standards of Integrity to guide the conduct of the Corporate Fuels and By-Products Department in the performance of its duties and responsibilities:</u>

Deleted: Code of Ethics

The Department shall endeavor to serve the best interests of the Company and its customers in the performance of the Department's duties and responsibilities.

Fuels staff shall adhere to the ethical standards and policies of the Company.

Each employee involved with the procurement of Fuel will be required to <u>promptly disclose</u>, in writing, any actual or potential conflicts of interest to their supervisor and the LG&E/KU Compliance Department.

Deleted: annually file a "Conflict of Interest" statement with the Company

N. Penalties For Noncompliance

All Fuels employees are required to familiarize themselves with the Fuels Policies and Procedures and acknowledge through a process established by management, that they have received, read, understand, accept, and will act in accordance with this document. Failure to comply with any term of the policy may result in disciplinary action, up to and including discharge.

Key Contact: Manager - Fuels Accounting and Administration,

References: Authority Limit Matrix, Records Management and Retention Policy, Standards of Integrity, Reliability Standards, and Affiliate Restriction Regulations

Administrative Responsibility: Director, Corporate Fuels and By- Products ,

Deleted: -

Deleted: Director, Corporate Fuels and By-Products

Deleted: . Anti-Manipulation Procedures;

Deleted:; Standards of Conduct Procedures, Credit Policy;

Deleted: ;

Deleted: Manager - Fuels Accounting and Administration

Originally issued at Louisville, Kentu	ucky, the 10th day of February, 2003.		
		Deleted: Jan	luary
Revised effective March, 1, 2013,		Deleted: 1	
	Louisville Gas and Electric Company		
	Kentucky Utilities Company		
	By Paul Thompson Chief Operating Officer		Deleted: Senior Vice President – Energy Services
	Du		
	By		
	David Sinclair	,	
	Vice President - Energy Supply and Analysis		Deleted: Marketing

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 32

Witness: Mike Dotson

- Q-32. a. State whether KU is aware of any violations of its policies and procedures regarding fuel procurement that occurred prior to or during the period from May 1, 2012 to October 31, 2012.
 - b. If the response is yes, for each violation:
 - (1) Describe the violation;
 - (2) Describe the action(s) that KU took upon discovering the violation; and
 - (3) Identify the person(s) who committed the violation.
- A-32. a. No.
 - b. Not applicable.

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 33

Witness: Mike Dotson

- Q-33. Identify and explain the reasons for all changes in the organizational structure and personnel of the departments or divisions that are responsible for KU's fuel procurement activities that occurred during the period from May 1, 2012 to October 31, 2012.
- A-33. There have been no changes in the organizational structure since the last response provided to the Commission in Case No. 2012-00320, Question No. 17.

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 34

Witness: David L. Tummonds

- Q-34. a. Identify all changes that KU made during the period from May 1, 2012 to October 31, 2012 to its maintenance and operation practices that affect fuel usage at KU's generation facilities.
 - b. Describe the impact of these changes on KU's fuel usage.
- A-34. a. None.
 - b. Not applicable.

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 35

Witness: Robert M. Conroy

- Q-35. a. List all intersystem sales during the period from May 1, 2012 to October 31, 2012 in which KU used a third party's transmission system.
 - b. For each sale listed above:
 - (1) Describe how KU addressed, for FAC reporting purposes, the cast of fuel expended to cover any line losses incurred to transmit its power across the third party's transmission system; and
 - (2) State the line-loss factor used for each transaction and describe how such line-loss factor was determined.
- A-35. a. There were no inter-system sales from May 1, 2012 to October 31, 2012 which required a third party's transmission system.
 - b. Not applicable.

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 36

Witness: Robert M. Conroy

- Q-36. Describe each change that KU made to its methodology for calculating intersystem sales line losses during the period from May 1, 2012 to October 31, 2012.
- A-36. There have been no changes regarding the calculation of losses associated with intersystem sales. KU continues to use a line loss factor of one percent to determine the cost of fuel associated with line losses incurred to make an intersystem sale and recovered from such sale consistent with the Commission's August 30, 1999 Order in Case Nos. 94-461-A, 94-461-B, 94-461-C and 95-523, and the March 25, 2003 Order in Case No. 2002-00224.

However, KU recently completed a line loss study of its entire transmission and distribution system. The results of that study support the use of an incremental loss factor of 0.5% when adjusting off-system sales revenues for the monthly FAC filings. The updated incremental line loss study is attached to this response. KU respectfully requests the Commission to approve the use of an incremental loss factor of 0.5% when adjusting off-system sales revenues for FAC reporting purposes. Specifically KU asks the Commission to approve the use of the proposed incremental loss factor when the Commission issues its final order in this proceeding effective with the first billing cycle in the second month following the month in which the Commission issues its Order in this proceeding.

January 2013

Prepared by:



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January 15, 2013

Mr. Robert M. Conroy Director of Rates LG&E and KU Services Company 220 West Main Street Louisville, KY 40202

RE: 2011 INCREMENTAL LOSS ANALYSIS - KU AND LG&E

Dear Mr. Conroy:

Transmitted herewith are the results of the 2011 Incremental Analysis of System Losses for LG&E and KU Services Company's power system.

Our analysis in this loss study was very detailed and considered hourly transactions and related calculations. We have presented our monthly loss results as well as a recommended overall annual incremental loss factor of 0.5% which is reduced from our prior analysis of 1%.

Should you require any additional information, please let us know at your earliest convenience.

Sincerely.

Paul M. Normand

Principal

Enclosure

PMN/rjp

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INTRODUCTION

Energy losses occur in every piece of electrical equipment which carries electricity. The vast majority of these losses arise from resistance to current flowing through conductors and which vary with loading. These amounts are referred to as variable or load losses. The other smaller component of losses is no-load or fixed losses. Fixed losses include transformer core losses, conductor corona and insulator losses and substation auxiliary energy use. The level of variable losses will vary according to loading conditions and other system factors such as the distribution of generation to meet load levels. By contrast, fixed losses remain essentially constant for all hours of the year irrespective of loading conditions.

In an incremental loss analysis, no load (fixed) losses must be netted out or removed from the final results. This is most important since failure to remove these fixed non-varying losses will inflate the resulting loss factors and produce misleading and inconsistent results when applied to incremental non-firm sales, which are priced at incremental fuel costs.

The most direct approach to isolating the effect of fixed losses from incremental losses is to initially establish a base case loading condition where the power system is modeled for the full requirement of the Company's native loads. The next step in the process is to simulate the impact of incremental losses on the power system from this base case by incrementally increasing or decreasing the generation to represent various sales (OSS) transactions throughout the year and calculating any differences in losses for each of these results from the base case.

AVERAGE VERSUS INCREMENTAL LOSSES

This report presents the results of the LGEE system wide incremental power loss analysis. Off System Sales (OSS) are non-firm and made after all firm load commitments have been met. The only proper approach to determining losses associated with these incremental sales is by doing an incremental loss analysis as we have prepared in this report. By performing an incremental study, a portion of the power system losses which is unaffected by these sales to other systems through the interconnections can be isolated and removed from the results so as to ensure that excess recovery is not assigned to these sales. Use of an average system loss factor would greatly increase the loss recovery beyond a reasonable level for LGEE Off System Sales as our analyses have historically shown.

As a reference point, in comparing the calculated annual incremental losses versus the transmission losses associated with the LGEE system based on a 2/1/2011 through 1/31/2012 test period, the resulting loss factors are as follows:

Annual Average Energy Loss Factor
 Annual Incremental Loss Factor
 1.02048
 1.00447



INCREMENTAL LOSS CALCULATIONS

As part of the loss calculations, three seasonal power flow base case models were prepared to initially perform and calculate the appropriate level of average hourly losses for an entire year. In the next step, additional hourly loss calculations were prepared removing incremental hourly OSS exports of 100 MW or greater for each hourly transaction based on the Company's actual data. These revised hourly loss calculations (second step) were made using the initial hourly power flow models as the base case loading level for the historical period of 2/1/2011 through 1/31/2012. From this information, incremental losses related to these hourly differences were calculated to arrive at the incremental losses due to Off System Sales (OSS).

In preparing the OSS sales data for analysis, the detail was aggregated into eight points of receipt (POR) as follows:

BN138, CR138, GH138, GH345, GR138, MC345, PR138, and TC345.

The next category was to identify major points of delivery (POD) which were aggregated into four balancing areas:

EKPC, MISO, PJM, and TVA.

After having established these eight PORs and four PODs, the next step was to derive a power transfer distribution factor (PTDF) which establishes a change in power flow relationship between each POR to each POD. Knowing the PTDF factors and the hourly OSS magnitude, hourly power flow models were prepared. With these revised hourly models, we now have two power flow results from which hourly loss changes can be derived to calculate each composite incremental hourly loss as presented in Appendix A for OSS sales.

In order to evaluate any possible monthly or seasonal effects, these calculations were undertaken in detail for each hour. Exhibit PMN-1 provides the detail summary of monthly incremental loss results from Appendix A segregated by month to identify the possible range of impacts of these power flow loss results for each of 4,113 hourly transactions.

Due to the numerous hourly calculations (4,113) and the hourly ranges of impact, three specific graphical representations have been plotted that depict these hourly ranges of OSS level, losses, and final percent loss levels for all data points.

- Figure 1 represents the hourly OSS and corresponding losses in MW,
- Figure 2 represents the incremental hourly losses as a percent of OSS sales, and
- Figure 3 represents the actual hourly magnitude of OSS transaction in MW.

This 2011 incremental loss analysis was developed based on the use of a much more detailed analysis of Off System Sales data than has had been previously developed (2001 and 2003). The hourly transaction data was identified for each hour for all OSS sales greater than 100 MW and used two decrement modeled hourly power flows to derive unique incremental losses for that hour based on two separate power flow results. Appendix A of this report provides a detailed summary of each

of these hourly OSS transactions, the date and hour of occurrence, and the associated loss magnitude change and corresponding percent.

RECOMMENDATIONS

The incremental loss results for the entire 12-month period ending 1/31/2012 show that an annual level of incremental losses of 0.45% (Exhibit PMN-1, page 2) which is well below the currently approved 1% value. This also represents a loss value of less than one-fourth of the annual average loss of 2.048% as stated earlier.

Due to the wide varying nature of these incremental losses on both an hourly and monthly basis, my overall recommendation is to use an annual average incremental loss of 0.50% as a reasonable and more manageable approach to these incremental OSS sales losses.

Exhibit

LGEE Incremental Off System Sales Loss Summary

	Year-Month (a)	Criteria (b)	Date (d)	Sales (MW) (c)	Loss (MW) (e)	Percent (f)
1 2	2011-02					
2		Max Sales	2011-02-07-1700	1106	5.4	0.487%
3		Min Sales	2011-02-12-1300	100	0.4	0.386%
4		Max Loss		507	9.6	1.888%
5		Min Loss		296	-12.8	-4.315%
6		Monthly Avg		379	0.8	0.198%
	2011-03					
8		Max Sales	2011-03-20-2100	932	-0.3	-0.037%
9		Min Sales	2011-03-06-1100	100	-1.8	-1.821%
10		Max Loss		536	5.9	1.102%
11		Min Loss		249	-5.4	-2.176%
12		Monthly Avg		323	-0.1	-0.046%
	2011-04					
14		Max Sales	2011-04-24-1200	805	3.0	0.369%
15		Min Sales	2011-04-04-0100	100	0.3	0.337%
16		Max Loss		469	4.4	0.928%
17		Min Loss		200	-1.7	-0.857%
18		Monthly Avg		285	1.1	0.390%
	2011-05	M 0.1	2011 05 07 0100	000	0.0	1.02(0/
20		Max Sales	2011-05-07-2100	880	9.0	1.026%
21		Min Sales	2011-05-08-0900	100	0.7	0.746%
22		Max Loss		800	10.5	1.315%
23		Min Loss		264	-6.9	-2.595%
24252	2011 06	Monthly Avg		336	0.6	0.173%
23 Z 26	2011-06	Max Sales	2011-06-15-1400	1011	20.8	2.059%
20 27		Min Sales	2011-06-01-1300	100	-0.1	-0.060%
28		Max Loss	2011-00-01-1300	1011	20.8	2.059%
29		Min Loss		298	-10.1	-3.391%
30		Monthly Avg		363	1.2	0.339%
	2011-07	wioning rive		303	1.2	0.55770
32	2011 07	Max Sales	2011-07-09-1100	1148	7.6	0.664%
33		Min Sales	2011-07-12-0100	100	-0.1	-0.144%
34		Max Loss		1073	9.4	0.877%
35		Min Loss		361	-10.1	-2.808%
36		Monthly Avg		343	0.4	0.105%
	2011-08					
38		Max Sales	2011-08-17-0900	553	1.2	0.215%
39		Min Sales	2011-08-05-0000	100	-3.2	-3.216%
40		Max Loss		493	4.6	0.924%
41		Min Loss		408	-9.3	-2.269%
42		Monthly Avg		243	-0.7	-0.299%

LGEE Incremental Off System Sales Loss Summary

	Year-Month (a)	Criteria (b)	Date (d)	Sales (MW) (c)	Loss (MW) (e)	Percent (f)
43	2011-09					
44		Max Sales	2011-09-20-1900	967	9.8	1.009%
45		Min Sales	2011-09-03-1100	100	-1.3	-1.306%
46		Max Loss		701	10.0	1.422%
47		Min Loss		200	-4.4	-2.224%
48		Monthly Avg		345	2.8	0.817%
49	2011-10					
50		Max Sales	2011-10-22-1600	1152	12.9	1.119%
51		Min Sales	2011-10-11-0000	100	0.9	0.857%
52		Max Loss		918	13.2	1.438%
53		Min Loss		472	-4.1	-0.872%
54		Monthly Avg		467	4.1	0.887%
55	2011-11					
56		Max Sales	2011-11-12-1000	927	12.9	1.393%
57		Min Sales	2011-11-04-1200	100	0.4	0.430%
58		Max Loss		920	13.4	1.460%
59		Min Loss		300	-8.6	-2.853%
60		Monthly Avg		455	3.9	0.867%
61	2011-12					
62		Max Sales	2011-12-28-0800	975	11.0	1.130%
63		Min Sales	2011-12-04-1000	100	-0.3	-0.256%
64		Max Loss		804	12.0	1.488%
65		Min Loss		585	-9.0	-1.540%
66		Monthly Avg		395	2.5	0.625%
67	2012-01					
68		Max Sales	2012-01-04-1900	809	-2.7	-0.334%
69		Min Sales	2012-01-03-0900	100	-4.3	-4.274%
70		Max Loss		700	11.6	1.656%
71		Min Loss		355	-11.9	-3.352%
72		Monthly Avg		347	0.6	0.179%
73	Annual					
74		Max Sales	2011-10-22-1600	1152	12.9	1.119%
75		Min Sales	2011-02-12-1300	100	0.4	0.386%
76		Max Loss		1011	20.8	2.059%
77		Min Loss		296	-12.8	-4.315%
78						
79	AVERAGE A	NNUAL LOSS F.	ACTOR	371.1	1.7	0.45%
80						
81	RECOMMEN	IDED ANNUAL	LOSS FACTOR			0.50%
82						

Appendix

					0.4#04	Average Incremental
Hour	OSS	Inc Loss	Date-Time	% Losses	0.45%	Loss Factor
2011-02-01-0100	450	3.282	2/1/11 1:00	0.007293	1	
2011-02-01-0200	450	3.245	2/1/11 2:00	0.007211	2 avg load	371.1 MW
2011-02-01-0300	450	3.136	2/1/11 3:00	0.006969	3 avg losses	1.7 MW
2011-02-01-0400	650	5.191	2/1/11 4:00	0.007986	4 avg losses	0.45%
2011-02-01-0500	650	5.274	2/1/11 5:00	0.008114	5	
2011-02-01-0600	668	5.545	2/1/11 6:00	0.008301	6	
2011-02-01-0700	877	9.102	2/1/11 7:00	0.010379	7	
2011-02-01-0800	561	5.717	2/1/11 8:00	0.010191	8	
2011-02-01-0900	500	5.286	2/1/11 9:00	0.010572	9	
2011-02-01-1000	399	3.905	2/1/11 10:00	0.009787	10	
2011-02-01-1100	181	0.972	2/1/11 11:00	0.00537	11	
2011-02-01-1200	223	1.308	2/1/11 12:00	0.005865	12	
2011-02-01-1300	332	2.408	2/1/11 13:00	0.007253	13	
2011-02-01-1400	237	1.259	2/1/11 14:00	0.005312	14	
2011-02-01-1500	274	1.843	2/1/11 15:00	0.006726	15	
2011-02-01-1600	289	2.266	2/1/11 16:00	0.007841	16	
2011-02-01-1700	316	2.556	2/1/11 17:00	0.008089	17	
2011-02-01-1800	441	4.291	2/1/11 18:00	0.00973	18	
2011-02-01-1900	430	3.845	2/1/11 19:00	0.008942	19	
2011-02-01-2000	445	4.21	2/1/11 20:00	0.009461	20	
2011-02-01-2100	449	4.886	2/1/11 21:00	0.010882	21	
2011-02-01-2200	397	4.238	2/1/11 22:00	0.010675	22	
2011-02-01-2300	317	3.124	2/1/11 23:00	0.009855	23	
2011-02-02-0200	324	2.355	2/2/11 2:00	0.007269	24	
2011-02-02-0300	403	3.226	2/2/11 3:00	0.008005	25	
2011-02-02-0400	403	2.613	2/2/11 4:00		26	
2011-02-02-0500	403	2.978	2/2/11 5:00	0.00739	27	
2011-02-02-0600	403	3.105	2/2/11 6:00	0.007705	28	
2011-02-02-0700	403	3.892	2/2/11 7:00	0.009658	29	
2011-02-02-0800	491	-0.055	2/2/11 8:00	-0.00011	30	
2011-02-02-0900	403	-2.87	2/2/11 9:00	-0.00712	31	
2011-02-02-1000	403	-2.986	2/2/11 10:00	-0.00741	32	
2011-02-02-1100	403	-2.648	2/2/11 11:00	-0.00657	33	
2011-02-02-1200	403	-1.244	2/2/11 12:00	-0.00309	34	
2011-02-02-1300	403	5.025	2/2/11 13:00	0.012469	35	
2011-02-02-1400	403	5.495	2/2/11 14:00	0.013635	36	
2011-02-02-1500	403	5.438	2/2/11 15:00	0.013494	37	
2011-02-02-1600	403	5.537	2/2/11 16:00	0.013739	38	
2011-02-02-1700	402	4.593	2/2/11 17:00	0.011425	39	
2011-02-02-1800	351	-4.043	2/2/11 18:00	-0.01152	40	
2011-02-02-1900	152	-6.289	2/2/11 19:00	-0.04138	41	
2011-02-02-2000	152	-6.204	2/2/11 20:00	-0.04082	42	
2011-02-02-2100	199	-8.032	2/2/11 21:00	-0.04036	43	
2011-02-02-2200	250	-9.805	2/2/11 22:00	-0.03922	44	
2011-02-02-2300	403	-7.883	2/2/11 23:00	-0.01956	45	
2011-02-03-0000	403	-1.692	2/3/11 0:00	-0.0042	46	
2011-02-03-0100	450	-0.161	2/3/11 1:00	-0.00036	47	
2011-02-03-0200	525	2.014	2/3/11 2:00	0.003836	48	
2011-02-03-0300	575	3.124	2/3/11 3:00		49	
2011-02-03-0400	625	3.942	2/3/11 4:00		50	
2011-02-03-0500	675	4.471	2/3/11 5:00		51	
2011-02-03-0600	573	2.826	2/3/11 6:00	0.004932	52	
2011-02-03-0700	406	0	2/3/11 7:00	0	53	
2011-02-03-0800	499	-4.617	2/3/11 8:00	-0.00925	54	
2011-02-03-0900	399	-4.853	2/3/11 9:00		55	
2011-02-03-1000	548	-0.013	2/3/11 10:00	-2.4E-05	56	

			•		
Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-02-03-1100	363	-0.027	2/3/11 11:00	-7.4E-05	57
2011-02-03-1200	359	-6.732	2/3/11 12:00	-0.01875	58
2011-02-03-1400	200	-4.501	2/3/11 14:00	-0.02251	59
2011-02-03-1500	200	-5.41	2/3/11 15:00	-0.02705	60
2011-02-03-1600	350	-3.073	2/3/11 16:00	-0.00878	61
2011-02-03-1700	400	-2.301	2/3/11 17:00	-0.00575	62
2011-02-03-1800	199	-4.67	2/3/11 18:00	-0.02347	63
2011-02-04-0000	188	-6.59	2/4/11 0:00	-0.03505	64
2011-02-04-0100	300	-5.904	2/4/11 1:00	-0.01968	65
2011-02-04-0200	300	-2.989	2/4/11 2:00	-0.00996	66
2011-02-04-0300	300	0.129	2/4/11 3:00	0.00043	67
2011-02-04-0400	300	0.209	2/4/11 4:00	0.000697	68
2011-02-04-0500	300	-0.057	2/4/11 5:00	-0.00019	69
2011-02-04-0600	275	-6.571	2/4/11 6:00	-0.02389	70
2011-02-04-1300	199	-6.333	2/4/11 13:00	-0.03182	71
2011-02-04-1400	349	-4.359	2/4/11 14:00	-0.01249	72
2011-02-04-1500	337	-1.469	2/4/11 15:00	-0.00436	73
2011-02-04-1600	499	6.097	2/4/11 16:00	0.012218	74
2011-02-04-1700	649	7.589	2/4/11 17:00	0.011693	75
2011-02-04-1800	499	2.853	2/4/11 18:00	0.005717	76
2011-02-04-1900	349	-0.414	2/4/11 19:00	-0.00119	77
2011-02-04-2000	299	-1.188	2/4/11 20:00	-0.00397	78
2011-02-04-2100	374	-2.171	2/4/11 21:00	-0.0058	79
2011-02-04-2200	448	-0.738	2/4/11 22:00	-0.00165	80
2011-02-04-2300	499	0.296	2/4/11 23:00	0.000593	81
2011-02-05-0000	297	-1.308	2/5/11 0:00	-0.0044	82
2011-02-06-0500	107	0.319	2/6/11 5:00	0.002981	83
2011-02-06-0600	124	0.253	2/6/11 6:00	0.00204	84
2011-02-06-0700	109	-0.239	2/6/11 7:00	-0.00219	85
2011-02-06-0800	113	0.202	2/6/11 8:00	0.001788	86
2011-02-06-0900	299	2.221	2/6/11 9:00	0.007428	87
2011-02-06-1000	296	2.296	2/6/11 10:00	0.007757	88
2011-02-06-1100	189	0.923	2/6/11 11:00	0.004884	89
2011-02-06-1200	289	1.801	2/6/11 12:00	0.006232	90
2011-02-06-1300	389	3.087	2/6/11 13:00	0.007936	91
2011-02-06-1400	289	1.247	2/6/11 14:00	0.004315	92
2011-02-06-1500	289	1.044	2/6/11 15:00	0.003612	93
2011-02-06-1600	290	1.083	2/6/11 16:00	0.003734	94 05
2011-02-06-1700	294	0.685	2/6/11 17:00	0.00233	95
2011-02-06-1800	295	0.311	2/6/11 18:00	0.001054	96
2011-02-06-1900	693	3.883	2/6/11 19:00	0.005603	97
2011-02-06-2000 2011-02-06-2100	751 698	5.607	2/6/11 20:00	0.007466	98 99
2011-02-06-2100	558	5.215	2/6/11 21:00 2/6/11 22:00	0.007471 0.008708	
2011-02-06-2300	697	4.859 6.913	2/6/11 23:00	0.008708	100 101
2011-02-06-2300	297	1.969	2/7/11 0:00	0.009918	101
2011-02-07-0000	297	1.577	2/7/11 0:00	0.00531	103
2011-02-07-0100	296	2.035	2/7/11 1:00	0.00331	103
2011-02-07-0200	296	2.033	2/7/11 2:00	0.000873	105
2011-02-07-0300	300	2.082	2/7/11 3:00	0.007034	103
2011-02-07-0400	296	2.134	2/7/11 4:00	0.00718	107
2011-02-07-0600	595	5.083	2/7/11 5:00	0.000920	107
2011-02-07-0000	576	5.069	2/7/11 7:00	0.008343	109
2011-02-07-0800	605	1.636	2/7/11 8:00	0.0033	110
2011-02-07-0800	536	-1.149	2/7/11 8:00	-0.002704	111
2011-02-07-1000	731	2.434	2/7/11 10:00	0.00333	112
2011 02 07-1000	1.51	ω.T.J⊤f	4//11 10:00	0.00000	114-

Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-02-07-1100	773	3.686	2/7/11 11:00	0.004768	113	
2011-02-07-1200	899	3.102	2/7/11 12:00	0.003451	114	
2011-02-07-1300	898	1.679	2/7/11 13:00	0.00187	115	
2011-02-07-1400	899	3.22	2/7/11 14:00	0.003582	116	
2011-02-07-1500	883	2.814	2/7/11 15:00	0.003187	117	
2011-02-07-1600	1046	5.048	2/7/11 16:00	0.004826	118	
2011-02-07-1700	1106	5.385	2/7/11 17:00	0.004869	119	
2011-02-07-1800	881	1.695	2/7/11 18:00	0.001924	120	
2011-02-07-1900	685	-2.204	2/7/11 19:00	-0.00322	121	
2011-02-07-2000	685	-2.24	2/7/11 20:00	-0.00327	122	
2011-02-07-2100	736	-0.903	2/7/11 21:00	-0.00123	123	
2011-02-07-2200	735	-0.751	2/7/11 22:00	-0.00102	124	
2011-02-07-2300	692	-1.116	2/7/11 23:00	-0.00161	125	
2011-02-08-0000	732	0.007	2/8/11 0:00	9.56E-06	126	
2011-02-08-0100	262	-2.978	2/8/11 1:00	-0.01137	127	
2011-02-08-0200	240	0.244	2/8/11 2:00	0.001017	128	
2011-02-08-0300	243	1.669	2/8/11 3:00	0.006868	129	
2011-02-08-0400	244	1.551	2/8/11 4:00	0.006357	130	
2011-02-08-0500	296	2.657	2/8/11 5:00	0.008976	131	
2011-02-08-0600	703	7.613	2/8/11 6:00	0.010829	132	
2011-02-08-0700	415	2.443	2/8/11 7:00	0.005887	133	
2011-02-08-0800	375	-5.738	2/8/11 8:00	-0.0153	134	
2011-02-08-0900	400	-2.99	2/8/11 9:00	-0.00748	135	
2011-02-08-1000	231	-8.196	2/8/11 10:00	-0.03548	136	
2011-02-08-1100	233	-8.097	2/8/11 11:00	-0.03475	137	
2011-02-08-1200	236	-7.763	2/8/11 12:00	-0.03289	138	
2011-02-08-1300	243	-5.619	2/8/11 13:00	-0.02312	139	
2011-02-08-1400	243	-2.332	2/8/11 14:00	-0.0096	140	
2011-02-08-1500	179	0.577	2/8/11 15:00	0.003223	141	
2011-02-08-1800	444	-0.352	2/8/11 18:00	-0.00079	142	
2011-02-08-1900	430	-7.632	2/8/11 19:00	-0.01775	143	
2011-02-08-2000	335	-10.442	2/8/11 20:00	-0.03117	144	
2011-02-08-2100	335	-10.317	2/8/11 21:00	-0.0308	145	
2011-02-08-2200	335	-10.883	2/8/11 22:00	-0.03249	146	
2011-02-08-2300	335	-2.516	2/8/11 23:00	-0.00751	147	
2011-02-09-0000	435	1.41	2/9/11 0:00	0.003241	148	
2011-02-09-0100	374	3.471	2/9/11 1:00	0.009281	149	
2011-02-09-0200	468	1.439	2/9/11 2:00	0.003075	150	
2011-02-09-0300	480	6.491	2/9/11 3:00	0.013523	151	
2011-02-09-0400	575	6.03	2/9/11 4:00	0.010487	152	
2011-02-09-0500	592	-1.551	2/9/11 5:00	-0.00262	153	
2011-02-09-0600	280	-9.032	2/9/11 6:00	-0.03226	154	
2011-02-09-1300	229	-6.825	2/9/11 13:00	-0.0298	155	
2011-02-09-1400	281	-8.069	2/9/11 14:00	-0.02872	156	
2011-02-09-1500	336	-8.884	2/9/11 15:00	-0.02644	157	
2011-02-09-1600	385	-8.544	2/9/11 16:00	-0.02219	158	
2011-02-09-1700	336	-9.439	2/9/11 17:00	-0.02809	159	
2011-02-09-1800	135	-4.67	2/9/11 18:00	-0.03459	160	
2011-02-09-2200	184	-6.405	2/9/11 22:00	-0.03481	161	
2011-02-09-2300	201	-6.896	2/9/11 23:00	-0.03431	162	
2011-02-10-0000	372	-8.729	2/10/11 0:00	-0.02347	163	
2011-02-10-0100	378	-9.388	2/10/11 1:00	-0.02484	164	
2011-02-10-0200	229	-7.885	2/10/11 2:00	-0.03443	165	
2011-02-10-0500	133	-3.091	2/10/11 5:00	-0.02324	166	
2011-02-10-1400	189	-5.664	2/10/11 14:00	-0.02997	167	
2011-02-10-1500	397	-6.918	2/10/11 15:00	-0.01743	168	

Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-02-10-1600	398	-3.945	2/10/11 16:00	-0.00991	169
2011-02-10-1700	397	-1.315	2/10/11 17:00	-0.00331	170
2011-02-10-1800	375	-1.611	2/10/11 18:00	-0.0043	171
2011-02-10-1900	289	-7.168	2/10/11 19:00	-0.0248	172
2011-02-10-2000	196	-6.803	2/10/11 20:00	-0.03471	173
2011-02-10-2100	197	-7.485	2/10/11 21:00	-0.03799	174
2011-02-10-2200	248	-8.968	2/10/11 22:00	-0.03616	175
2011-02-10-2300	303	-9.966	2/10/11 23:00	-0.03289	176
2011-02-11-0000	396	-6.056	2/11/11 0:00	-0.01529	177
2011-02-11-0100	396	5.88	2/11/11 1:00	0.014848	178
2011-02-11-0200	292	3,457	2/11/11 2:00	0.011839	179
2011-02-11-0300	387	0.882	2/11/11 3:00	0.002279	180
2011-02-11-0400	445	-0.912	2/11/11 4:00	-0.00205	181
2011-02-11-0500	449	-2.949	2/11/11 5:00	-0.00657	182
2011-02-11-0600	296	-12.772	2/11/11 6:00	-0.04315	183
2011-02-11-1200	119	-3.86	2/11/11 12:00	-0.03244	184
2011-02-11-1300	306	2.217	2/11/11 13:00	0.007245	185
2011-02-11-1400	307	2.317	2/11/11 14:00	0.007547	186
2011-02-11-1800	302	1.025	2/11/11 18:00	0.003394	187
2011-02-11-1900	302	0.83	2/11/11 19:00	0.002748	188
2011-02-11-2000	401	-5.486	2/11/11 20:00	-0.01368	189
2011-02-11-2100	107	-1.97	2/11/11 21:00	-0.01841	190
2011-02-11-2300	113	-0.17	2/11/11 23:00	-0.0015	191
2011-02-12-0000	297	0.019	2/12/11 0:00	6.4E-05	192
2011-02-12-0500	325	3.395	2/12/11 5:00	0.010446	193
2011-02-12-0600	375	4.997	2/12/11 6:00	0.013325	194
2011-02-12-0700	456	6.001	2/12/11 7:00	0.01316	195
2011-02-12-0800	350	4.501	2/12/11 8:00	0.01286	196
2011-02-12-0900	430	5.479	2/12/11 9:00	0.012742	197
2011-02-12-1000	201	0.175	2/12/11 10:00	0.000871	198
2011-02-12-1100	185	-0.324	2/12/11 11:00	-0.00175	199
2011-02-12-1200	200	0.237	2/12/11 12:00	0.001185	200
2011-02-12-1300	100	0.386	2/12/11 13:00	0.00386	201
2011-02-12-1800	173	1.148	2/12/11 18:00	0.006636	202
2011-02-12-1900	146	0.754	2/12/11 19:00	0.005164	203
2011-02-12-2000	400	4.671	2/12/11 20:00	0.011678	204
2011-02-12-2100	200	2.494	2/12/11 21:00	0.01247	205
2011-02-12-2200	200	2.063	2/12/11 22:00	0.010315	206
2011-02-13-0500	100	0.264	2/13/11 5:00	0.00264	207
2011-02-13-0600	426	6.514	2/13/11 6:00	0.015291	208
2011-02-13-0700	473	8.107	2/13/11 7:00	0.01714	209
2011-02-13-0800	507	9.573	2/13/11 8:00	0.018882	210
2011-02-13-0900	372	6.336	2/13/11 9:00	0.017032	211
2011-02-13-1000	287	3.976	2/13/11 10:00	0.013854	212
2011-02-13-1100	327	4.036	2/13/11 11:00	0.012343	213
2011-02-13-1900	249	1.977	2/13/11 19:00	0.00794	214
2011-02-13-2000	357	4.001	2/13/11 20:00	0.011207	215
2011-02-13-2100	357	3.915	2/13/11 21:00	0.010966	216
2011-02-13-2200	350	3.593	2/13/11 22:00	0.010266	217
2011-02-13-2300	175	0.934	2/13/11 23:00	0.005337	218
2011-02-14-0700	458	4.69	2/14/11 7:00	0.01024	219
2011-02-14-0800	462	5.788	2/14/11 8:00	0.012528	220
2011-02-14-0900	600	7.566	2/14/11 9:00	0.01261	221
2011-02-14-1000	574	7.597	2/14/11 10:00	0.013235	222
2011-02-14-1100	500	5.94	2/14/11 11:00	0.013233	223
2011-02-14-1200	300	3.567	2/14/11 12:00	0.01189	224

Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-02-14-1300	275	2.401	2/14/11 13:00	0.008731	225	
2011-02-14-1500	100	0.402	2/14/11 15:00	0.00402	226	
2011-02-14-1600	100	0.364	2/14/11 16:00	0.00364	227	
2011-02-14-1700	100	0.358	2/14/11 17:00	0.00358	228	
2011-02-14-1800	100	0.178	2/14/11 18:00	0.00178	229	
2011-02-14-1900	449	0.982	2/14/11 19:00	0.002187	230	
2011-02-14-2000	353	-0.411	2/14/11 20:00	-0.00116	231	
2011-02-14-2100	370	1.116	2/14/11 21:00	0.003016	232	
2011-02-14-2200	369	4.592	2/14/11 22:00	0.012444	233	
2011-02-14-2300	299	3.068	2/14/11 23:00	0.010261	234	
2011-02-15-0700	273	-6.078	2/15/11 7:00	-0.02226	235	
2011-02-15-1900	242	-0.895	2/15/11 19:00	-0.0037	236	
2011-02-15-2100	193	-1.949	2/15/11 21:00	-0.0101	237	
2011-02-16-1100	153	0.227	2/16/11 11:00	0.001484	238	
2011-02-16-1200	254	2.768	2/16/11 12:00	0.010898	239	
2011-02-16-1300	254	4.336	2/16/11 13:00	0.017071	240	
2011-02-16-1400	280	4.699	2/16/11 14:00	0.016782	241	
2011-02-16-1500	197	2.945	2/16/11 15:00	0.014949	242	
2011-02-16-1900	175	0.68	2/16/11 19:00	0.003886	243	
2011-02-16-2000	240	-1.682	2/16/11 20:00	-0.00701	244	
2011-02-16-2100	139	-2.946	2/16/11 21:00	-0.02119	245	
2011-02-16-2200	140	-1.117	2/16/11 22:00	-0.00798	246	
2011-02-17-0700	213	2.704	2/17/11 7:00	0.012695	247	
2011-02-19-1000	411	2.746	2/19/11 10:00	0.006681	248	
2011-02-19-1100	400	2.409	2/19/11 11:00	0.006023	249	
2011-02-19-1200	300	0.604	2/19/11 12:00	0.002013	250	
2011-02-19-1300	510	3.348	2/19/11 13:00	0.006565	251	
2011-02-19-1400	400	2.147	2/19/11 14:00	0.005368	252	
2011-02-19-1500	300	0.762	2/19/11 15:00	0.00254	253	
2011-02-19-1800	225	1.793	2/19/11 18:00	0.007969	254	
2011-02-19-1900	540	3.916	2/19/11 19:00	0.007252	255	
2011-02-19-2000	575	1.78	2/19/11 20:00	0.003096	256	
2011-02-19-2100	575	1.546	2/19/11 21:00	0.002689	257	
2011-02-19-2200	600	2.122	2/19/11 22:00	0.003537	258	
2011-02-19-2300	638	1.596	2/19/11 23:00	0.002502	259	
2011-02-20-0000	633	2.709	2/20/11 0:00	0.00428	260	
2011-02-20-0100	600	2.096	2/20/11 1:00	0.003493	261	
2011-02-20-0200	300	1.716	2/20/11 2:00	0.00572	262	
2011-02-20-0300	300	2.609	2/20/11 3:00	0.008697	263	
2011-02-20-0400	300	3.172	2/20/11 4:00	0.010573	264	
2011-02-20-0500	300	2.883	2/20/11 5:00	0.00961	265	
2011-02-20-0600	300	3.016	2/20/11 6:00	0.010053	266	
2011-02-20-0700	300	3.296	2/20/11 7:00	0.010987	267	
2011-02-20-0800	300	3.047	2/20/11 8:00	0.010157	268	
2011-02-20-0900	300	3.425	2/20/11 9:00	0.011417	269	
2011-02-20-1000	400	4.554	2/20/11 10:00	0.011385	270	
2011-02-20-1100	400	3.514	2/20/11 11:00	0.008785	271	
2011-02-20-1200	400	3.954	2/20/11 12:00	0.009885	272	
2011-02-20-1300	398	3.905	2/20/11 13:00	0.009812	273	
2011-02-20-1400	447	4.146	2/20/11 14:00	0.009275	274	
2011-02-20-1500	198	1.575	2/20/11 15:00	0.007955	275	
2011-02-20-1800	380	3.134	2/20/11 18:00	0.008247	276	
2011-02-20-1900	580	0.546	2/20/11 19:00	0.000941	277	
2011-02-20-2000	500	-1.891	2/20/11 20:00	-0.00378	278	
2011-02-20-2100	500	-1.526	2/20/11 21:00	-0.00305	279	
2011-02-20-2200	316	0.922	2/20/11 22:00	0.002918	280	

Average Incremental Loss Factor

0.45%

TT	000	YY	Data Thurs	0/ 1	
Hour	OSS	Inc Loss	Date-Time	% Losses	201
2011-02-20-2300	264	1.954	2/20/11 23:00	0.007402	281
2011-02-21-0000	100	0.448	2/21/11 0:00	0.00448	282
2011-02-21-0600	133	0.445	2/21/11 6:00	0.003346	28.3
2011-02-21-0700	423	2.167	2/21/11 7:00	0.005123	284
2011-02-21-0800	321	1.949	2/21/11 8:00	0.006072	285
2011-02-21-0900	363	2.858	2/21/11 9:00	0.007873	286
2011-02-21-1000	430	4.109	2/21/11 10:00	0.009556	287
2011-02-21-1100	504	4.648	2/21/11 11:00	0.009222	288
2011-02-21-1200	701	6.486	2/21/11 12:00	0.009252	289
2011-02-21-1300	768	7.017	2/21/11 13:00	0.009137	290
2011-02-21-1400	1015	6.151	2/21/11 14:00	0.00606	291
2011-02-21-1500	990	5.478	2/21/11 15:00	0.005533	292
2011-02-21-1600	1003	5.615	2/21/11 16:00	0.005598	293
2011-02-21-1700	1003	5.721	2/21/11 17:00	0.005704	294
2011-02-21-1800	1053	5.47	2/21/11 18:00	0.005195	295
2011-02-21-1900	853	3.847	2/21/11 19:00	0.00451	296
2011-02-21-2000	553	0.539	2/21/11 20:00	0.000975	297
2011-02-21-2100	703	1.827	2/21/11 21:00	0.002599	298
2011-02-21-2200	703	4.631	2/21/11 22:00	0.006587	299
2011-02-21-2300	551	4.28	2/21/11 23:00	0.007768	300
2011-02-22-0000	443	4.158	2/22/11 0:00	0.009386	301
2011-02-22-0100	100	0.382	2/22/11 1:00	0.00382	302
2011-02-22-0600	452	4.493	2/22/11 6:00	0.00994	303
2011-02-22-0700	560	5.441	2/22/11 7:00	0.009716	304
2011-02-22-0800	600	-1.425	2/22/11 8:00	-0.00238	305
2011-02-22-0900	400	-4.639	2/22/11 9:00	-0.0116	306
2011-02-22-1000	500	-2.566	2/22/11 10:00	-0.00513	307
2011-02-22-1100	553	-2.106	2/22/11 11:00	-0.00381	308
2011-02-22-1200	487	-2.483	2/22/11 12:00	-0.0051	309
2011-02-22-1300	487	-2.73	2/22/11 13:00	-0.00561	310
2011-02-22-1400	453	-2.826	2/22/11 14:00	-0.00624	311
2011-02-22-1500	403	-3.394	2/22/11 15:00	-0.00842	312
2011-02-22-1600	403	2.495	2/22/11 16:00	0.006191	313
2011-02-22-1700	153	-0.469	2/22/11 17:00	-0.00307	314
2011-02-22-1800	353	-0.698	2/22/11 18:00	-0.00198	315
2011-02-22-1900	249	-3.079	2/22/11 19:00	-0.01237	316
2011-02-22-2000	150	-3.876	2/22/11 20:00	-0.02584	317
2011-02-22-2100	350	-4.435	2/22/11 21:00	-0.01267	318
2011-02-22-2200	350	-4.167	2/22/11 22:00	-0.01191	319
2011-02-22-2300	388	-2.343	2/22/11 23:00	-0.00604	320
2011-02-23-0000	350	2.938	2/23/11 0:00	0.008394	321
2011-02-23-0100	345	3.305	2/23/11 1:00	0.00958	322
2011-02-23-0200	345	3.641	2/23/11 2:00	0.010554	323
2011-02-23-0300	345	3.652	2/23/11 3:00	0.010586	324
2011-02-23-0400	345	3.553	2/23/11 4:00	0.010299	325
2011-02-23-0500	370	3.84	2/23/11 5:00	0.010378	326
2011-02-23-0600	395	1.927	2/23/11 6:00	0.004878	327
2011-02-23-0700	345	-4.103	2/23/11 7:00	-0.01189	328
2011-02-23-0800	345	-3.061	2/23/11 8:00	-0.00887	329
2011-02-23-0900	345	-3.298	2/23/11 9:00	-0.00956	330
2011-02-23-1300	271	-2.084	2/23/11 13:00	-0.00769	331
2011-02-23-1500	199	-0.227	2/23/11 15:00	-0.00114	332
2011-02-23-1600	150	0.235	2/23/11 16:00	0.001567	333
2011-02-23-1700	150	1.428	2/23/11 17:00	0.00952	334
2011-02-23-1800	645	7.23	2/23/11 18:00	0.011209	335
2011-02-23-1900	645	5.871	2/23/11 19:00	0.009102	336

Hour	oss	Inc Loss	Date-Time	% Losses	0.4	15%
2011-02-23-2000	495	2.561	2/23/11 20:00	0.005174	337	
2011-02-23-2100	495	3.686	2/23/11 21:00	0.007446	338	
2011-02-23-2200	495	5.808	2/23/11 22:00	0.011733	339	
2011-02-23-2300	395	4.342	2/23/11 23:00	0.010992	340	
2011-02-24-0000	394	4.712	2/24/11 0:00	0.011959	341	
2011-02-24-0100	343	3.65	2/24/11 1:00	0.010641	342	
2011-02-24-0200	343	3.588	2/24/11 2:00	0.010461	343	
2011-02-24-0300	345	3.639	2/24/11 3:00	0.010548	344	
2011-02-24-0400	345	3.316	2/24/11 4:00	0.009612	345	
2011-02-24-0500	345	3.428	2/24/11 5:00	0.009936	346	
2011-02-24-0600	345	3.387	2/24/11 6:00	0.009817	347	
2011-02-24-0700	495	4.748	2/24/11 7:00	0.009592	348	
2011-02-24-0800	695	3.885	2/24/11 8:00	0.00559	349	
2011-02-24-0900	544	0.208	2/24/11 9:00	0.000382	350	
2011-02-24-1000	344	1.415	2/24/11 10:00	0.004113	351	
2011-02-24-1100	247	0.647	2/24/11 11:00	0.002619	352	
2011-02-24-1600	200	2.034	2/24/11 16:00	0.01017	353	
2011-02-24-1700	200	0.558	2/24/11 17:00	0.00279	354	
2011-02-24-1800	200	-0.512	2/24/11 18:00	-0.00256	355	
2011-02-24-1900	199	0.137	2/24/11 19:00	0.000688	356	
2011-02-24-2000	249	-0.304	2/24/11 20:00	-0.00122	357	
2011-02-24-2100	173	-1.137	2/24/11 21:00	-0.00657	358	
2011-02-24-2200	274	-0.925	2/24/11 22:00	-0.00338	359	
2011-02-24-2300	424	1.944	2/24/11 23:00	0.004585	360	
2011-02-25-0000	249	1.884	2/25/11 0:00	0.007566	361	
2011-02-25-0700	338	-0.899	2/25/11 7:00	-0.00266	362	
2011-02-25-1400	116	-0.567	2/25/11 14:00	-0.00489	363	
2011-02-25-1500	200	-2.094	2/25/11 15:00	-0.01047	364	
2011-02-25-1600	475	-0.736	2/25/11 16:00	-0.00155	365	
2011-02-25-1700	492	-1.262	2/25/11 17:00	-0.00257	366	
2011-02-25-1800	475	-2.219	2/25/11 18:00	-0.00467	367	
2011-02-25-1900	288	-2.891	2/25/11 19:00	-0.01004	368	
2011-02-25-2000	275	-2.887	2/25/11 20:00	-0.0105	369	
2011-02-25-2100	351	-3.521	2/25/11 21:00	-0.01003	370	
2011-02-25-2200	494	1.14	2/25/11 22:00	0.002308	371	
2011-02-25-2300	446	4.113	2/25/11 23:00	0.009222	372	
2011-02-26-0000	642	8.015	2/26/11 0:00	0.012484	373	
2011-02-26-0100	270	3.477	2/26/11 1:00	0.012878	374	
2011-02-26-0200	150	1.777	2/26/11 2:00		375	
2011-02-26-0300	296	3.692	2/26/11 3:00		376	
2011-02-26-0400	296	3.767	2/26/11 4:00	0.012726	377	
2011-02-26-0500	296	3.947	2/26/11 5:00	0.013334	378	
2011-02-26-0600	491	3.591	2/26/11 6:00	0.007314	379	
2011-02-26-0700	349	-0.925	2/26/11 7:00	-0.00265	380	
2011-02-26-0800	224	-1.439	2/26/11 8:00	-0.00642	381	
2011-02-26-0900	224	-0.795	2/26/11 9:00	-0.00355	382	
2011-02-26-1000	205	-0.138	2/26/11 10:00	-0.00067	383	
2011-02-26-1100	149	-0.437	2/26/11 11:00	-0.00293	384	
2011-02-26-1200	174	-0.621	2/26/11 12:00	-0.00357	385	
2011-02-26-1300	249	0.061	2/26/11 13:00	0.000245	386	
2011-02-26-1400	261	0.468	2/26/11 14:00	0.001793	387	
2011-02-26-1500	261	0.114	2/26/11 15:00	0.000437	388	
2011-02-26-1600	261	1.532	2/26/11 16:00	0.00587	389	
2011-02-26-1700	261	1.736	2/26/11 17:00	0.006651	390	
2011-02-26-1800	261	1.604	2/26/11 18:00	0.006146	391	
2011-02-26-1900	349	1.413	2/26/11 19:00	0.004049	392	
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			LGEE Hourly Increa	nental Loss	es	A T
Ш	Occ	In a I ass	Data Tima	0/ I asses		Average Incremental
Hour	OSS	Inc Loss	Date-Time	% Losses	202	0.45% Loss Factor
2011-02-26-2000	299	-1.152	2/26/11 20:00	-0.00385	393	
2011-02-26-2100	187	0.209	2/26/11 21:00		394	
2011-02-26-2200	261	2.116	2/26/11 22:00 2/26/11 23:00		395	
2011-02-26-2300	149	1.518			396	
2011-02-27-0000	149	1.284	2/27/11 0:00		397	
2011-02-27-1000	298	2.746	2/27/11 10:00		398 399	
2011-02-27-1100	299	2.709	2/27/11 11:00	0.00906	399 400	
2011-02-27-1200	199	1.378	2/27/11 12:00		400	
2011-02-27-1900	424	2.406	2/27/11 19:00		401	
2011-02-27-2000 2011-02-27-2100	461 200	3.147 1.834	2/27/11 20:00 2/27/11 21:00	0.000820	402	
2011-02-27-2100	206	1.78	2/27/11 22:00		404	
2011-02-27-2200	248	1.678	2/28/11 7:00		405	
2011-02-28-0700	396	2.917	2/28/11 8:00		406	
2011-02-28-0800	351	1.872	2/28/11 11:00		407	
2011-02-28-1200	368	1.773	2/28/11 12:00		408	
2011-02-28-1300	284	0.857	2/28/11 13:00		409	
2011-02-28-1400	437	3.027	2/28/11 14:00		410	
2011-02-28-1500	369	2.922	2/28/11 15:00		411	
2011-02-28-1600	336	2.92	2/28/11 16:00	0.00869	412	
2011-02-28-1700	286	2.457	2/28/11 17:00		413	
2011-02-28-1800	428	2.925	2/28/11 18:00		414	
2011-02-28-1900	321	1.347	2/28/11 19:00		415	
2011-02-28-2000	308	1.682	2/28/11 20:00		416	
2011-02-28-2100	410	1.942	2/28/11 21:00		417	
2011-02-28-2200	250	2.004	2/28/11 22:00		418	
2011-02-28-2300	249	2.078	2/28/11 23:00		419	
2011-03-01-0000	450	3.677	3/1/11 0:00		1	419 158,759 314.484
2011-03-01-0100	324	1.544	3/1/11 1:00		2	avg 379 0.751 0.198%
2011-03-01-0200	350	2.408	3/1/11 2:00	0.00688	3	
2011-03-01-0300	374	2.02	3/1/11 3:00	0.005401	4	
2011-03-01-0400	375	1.887	3/1/11 4:00	0.005032	5	
2011-03-01-0500	350	1.614	3/1/11 5:00	0.004611	6	
2011-03-01-0600	374	0.38	3/1/11 6:00	0.001016	7	
2011-03-01-0700	199	-2.041	3/1/11 7:00	-0.01026	8	
2011-03-01-1100	166	-3.279	3/1/11 11:00	-0.01975	9	
2011-03-01-1200	271	-3.731	3/1/11 12:00	-0.01377	10	
2011-03-01-1300	262	-3.78	3/1/11 13:00	-0.01443	11	
2011-03-01-1900	261	0.444	3/1/11 19:00		12	
2011-03-01-2000	324	0.056	3/1/11 20:00	0.000173	13	
2011-03-01-2100	324	0.331	3/1/11 21:00		14	
2011-03-01-2200	324	-0.612	3/1/11 22:00		15	
2011-03-01-2300	288	1.027	3/1/11 23:00		16	
2011-03-02-0000	324	2.005	3/2/11 0:00		17	
2011-03-02-0100	277	1.066	3/2/11 1:00		18	
2011-03-02-0200	277	0.94	3/2/11 2:00		19	
2011-03-02-0300	278	0.722	3/2/11 3:00		20	
2011-03-02-0400	170	-0.102	3/2/11 4:00	-0.0006	21	
2011-03-02-0500	182	-0.097	3/2/11 5:00		22	
2011-03-02-0600	149	-0.451	3/2/11 6:00	-0.00303	23	
2011-03-02-0700	337	-1.091	3/2/11 7:00	-0.00324	24	
2011-03-02-0800	137	-2.93	3/2/11 8:00		25	
2011-03-02-0900	124	-3.386	3/2/11 9:00		26 27	
2011-03-02-1000	249	-5.418	3/2/11 10:00		27	
2011-03-02-1100	149	-3.991	3/2/11 11:00	-0.02679	28	
2011-03-02-1600	149	-3.21	3/2/11 16:00	-0.02154	29	

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Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-03-02-1800	149	-0.062	3/2/11 18:00	-0.00042	30	
2011-03-02-1900	502	1.401	3/2/11 19:00	0.002791	31	
2011-03-02-2000	531	-0.176	3/2/11 20:00	-0.00033	32	
2011-03-02-2100	451	1.828	3/2/11 21:00	0.004053	33	
2011-03-02-2200	477	2.519	3/2/11 22:00	0.005281	34	
2011-03-02-2300	327	0.901	3/2/11 23:00	0.002755	35	
2011-03-03-0000	350	1.378	3/3/11 0:00	0.003937	36	
2011-03-03-0100	327	0.852	3/3/11 1:00	0.002606	37	
2011-03-03-0200	349	1.284	3/3/11 2:00	0.003679	38	
2011-03-03-0300	367	1.489	3/3/11 3:00	0.004057	39	
2011-03-03-0400	367	1.551	3/3/11 4:00	0.004226	40	
2011-03-03-0500	367	1.337	3/3/11 5:00	0.003643	41	
2011-03-03-0600	299	-1.929	3/3/11 6:00	-0.00645	42	
2011-03-03-0000	249	-0.86	3/3/11 0:00	-0.00345	43	
2011-03-03-1200	249	-1.315	3/3/11 12:00	-0.00528	43	
					44	
2011-03-03-1800	287	0.701	3/3/11 18:00	0.002443		
2011-03-03-1900	445	-0.86	3/3/11 19:00	-0.00193	46	
2011-03-03-2000	399	-1.628	3/3/11 20:00	-0.00408	47	
2011-03-03-2100	387	-1.505	3/3/11 21:00	-0.00389	48	
2011-03-03-2200	545	-0.501	3/3/11 22:00	-0.00092	49	
2011-03-03-2300	318	1.624	3/3/11 23:00	0.005107	50	
2011-03-04-0000	318	1.588	3/4/11 0:00	0.004994	51	
2011-03-04-0100	308	1.5	3/4/11 1:00	0.00487	52	
2011-03-04-0200	268	1.225	3/4/11 2:00	0.004571	53	
2011-03-04-0600	318	1.066	3/4/11 6:00	0.003352	54	
2011-03-04-0700	499	-0.226	3/4/11 7:00	-0.00045	55	
2011-03-04-0800	504	-1.363	3/4/11 8:00	-0.0027	56	
2011-03-04-0900	576	-0.553	3/4/11 9:00	-0.00096	57	
2011-03-04-1000	526	1.243	3/4/11 10:00	0.002363	58	
2011-03-04-1100	526	1.188	3/4/11 11:00	0.002259	59	
2011-03-04-1200	498	1.706	3/4/11 12:00	0.003426	60	
2011-03-04-1300	384	2.253	3/4/11 13:00	0.005867	61	
2011-03-04-1400	684	-0.433	3/4/11 14:00	-0.00063	62	
2011-03-04-1500	584	0.557	3/4/11 15:00	0.000954	63	
2011-03-04-1600	147	-0.265	3/4/11 16:00	-0.0018	64	
2011-03-04-1800	374	0.809	3/4/11 18:00	0.002163	65	
2011-03-04-1900	484	0.579	3/4/11 19:00	0.001196	66	
2011-03-04-2000	449	-1.566	3/4/11 20:00	-0.00349	67	
2011-03-04-2100	449	-2.413	3/4/11 21:00	-0.00537	68	
2011-03-04-2200	437	-0.302	3/4/11 22:00	-0.00069	69	
2011-03-04-2300	249	0.79	3/4/11 23:00	0.003173	70	
2011-03-05-0000	199	0.312	3/5/11 0:00	0.001568	71	
2011-03-05-0100	149	0.367	3/5/11 1:00	0.002463	72	
2011-03-05-0200	125	0.385	3/5/11 2:00	0.00308	73	
2011-03-05-0700	149	0.024	3/5/11 7:00	0.000161	74	
2011-03-05-0900	298	0.897	3/5/11 9:00	0.00301	75	
2011-03-05-1000	396	1.153	3/5/11 10:00	0.002912	76	
2011-03-05-1100	572	-0.48	3/5/11 11:00	-0.00084	77	
2011-03-05-1200	567	-1.918	3/5/11 12:00	-0.00338	78	
2011-03-05-1200	549	-2.259	3/5/11 12:00	-0.00338	78 79	
2011-03-05-1400	599	-1.238	3/5/11 14:00	-0.00207	80	
2011-03-05-1400	650	-0.97	3/5/11 15:00	-0.00207	81	
2011-03-05-1600	675	-0.644	3/5/11 15:00	-0.00149	82	
2011-03-05-1700	725	-0.56	3/5/11 17:00	-0.00077	83	
2011-03-05-1700	576	-1.177	3/5/11 17:00	-0.00204	84	
2011-03-05-1800	412	-3.108	3/5/11 18:00	-0.00204	85	
2011-0J-0J-1700	412	~5/100	11 17.00 الداد	-0.00/34	0.3	

							Average Inc
Hour	oss	Inc Loss	Date-Time	% Losses		0.45%	Loss Fa
2011-03-05-2000	299	-3.206	3/5/11 20:00	-0.01072	86		
2011-03-05-2100	213	-2.504	3/5/11 21:00	-0.01176	87		
2011-03-05-2200	246	-1.341	3/5/11 22:00	-0.00545	88		
2011-03-05-2300	424	0.158	3/5/11 23:00	0.000373	89		
2011-03-06-0000	449	1.571	3/6/11 0:00	0.003499	90		
2011-03-06-0100	199	-0.475	3/6/11 1:00	-0.00239	91		
2011-03-06-1100	100	-1.821	3/6/11 11:00	-0.01821	92		
2011-03-06-1200	199	-3.938	3/6/11 12:00	-0.01979	93		
2011-03-06-1300	299	-5.218	3/6/11 13:00	-0.01745	94		
2011-03-06-1400	349	-4.68	3/6/11 14:00	-0.01341	95		
2011-03-06-1500	349	-4.06	3/6/11 15:00	-0.01163	96		
2011-03-06-1600	399	-4.005	3/6/11 16:00	-0.01004	97		
2011-03-06-1700	349	-4.096	3/6/11 17:00	-0.01174	98		
2011-03-06-1800	249	-4.047	3/6/11 18:00	-0.01625	99		
2011-03-07-0000	172	-2.029	3/7/11 0:00	-0.0118	100		
2011-03-07-0100	193	-0.813	3/7/11 1:00	-0.00421	101		
2011-03-07-0200	194	0.785	3/7/11 2:00	0.004046	102		
2011-03-07-0300	299	2.312	3/7/11 3:00	0.007732	103		
2011-03-07-0400	199	0.595	3/7/11 4:00	0.00299	104		
2011-03-07-0500	199	0.073	3/7/11 5:00		105		
2011-03-07-0600	218	-2.68	3/7/11 6:00	-0.01229	106		
2011-03-07-1600	175	-2.231	3/7/11 16:00	-0.01275	107		
2011-03-07-1700 2011-03-07-1900	102 196	-1.2 -2.991	3/7/11 17:00 3/7/11 19:00	-0.01176 -0.01526	108 109		
2011-03-07-1900	104	-2.991	3/7/11 19:00	-0.01320	110		
2011-03-07-2000	230	-4.011	3/7/11 20:00	-0.01744	111		
2011-03-07-2300	209	0.071	3/7/11 22:00	0.00034	112		
2011-03-07-2500	437	4.791	3/8/11 0:00		113		
2011-03-08-0100	536	5.905	3/8/11 1:00	0.011017	114		
2011-03-08-0200	136	-0.151	3/8/11 2:00	-0.00111	115		
2011-03-08-0300	135	-1.021	3/8/11 3:00	-0.00756	116		
2011-03-08-0600	250	-0.11	3/8/11 6:00	-0.00044	117		
2011-03-08-0700	293	-5.016	3/8/11 7:00	-0.01712	118		
2011-03-08-0800	299	-4.156	3/8/11 8:00	-0.0139	119		
2011-03-08-0900	289	-3.704	3/8/11 9:00	-0.01282	120		
2011-03-08-1000	299	-2.641	3/8/11 10:00	-0.00883	121		
2011-03-08-1100	349	-2.663	3/8/11 11:00	-0.00763	122		
2011-03-08-1200	307	-0.137	3/8/11 12:00	-0.00045	123		
2011-03-08-1800	400	2.208	3/8/11 18:00	0.00552	124		
2011-03-08-1900	399	2.733	3/8/11 19:00	0.00685	125		
2011-03-08-2000	499	3.401	3/8/11 20:00		126		
2011-03-08-2100	549	4.272	3/8/11 21:00		127		
2011-03-08-2200	649	5.766	3/8/11 22:00		128		
2011-03-09-0700	418	1.802	3/9/11 7:00	0.004311	129		
2011-03-09-0800	524	0.481	3/9/11 8:00		130		
2011-03-09-0900	524	0.639	3/9/11 9:00		131		
2011-03-09-1000 2011-03-09-1100	474 473	-0.125 -0.387	3/9/11 10:00 3/9/11 11:00	-0.00026 -0.00082	132 133		
2011-03-09-1100	399	-1.476	3/9/11 11:00	-0.00082	133		
2011-03-09-1200	349	-2.063	3/9/11 12:00	-0.00591	134		
2011-03-09-1300	399	-1.341	3/9/11 13:00	-0.00331	135		
2011-03-09-1400	349	-0.381	3/9/11 14:00	-0.00330	137		
2011-03-09-1600	449	1.975	3/9/11 16:00	0.004399	138		
2011-03-09-1700	349	1.561	3/9/11 17:00	0.004473	139		
2011-03-09-1800	452	2.016	3/9/11 18:00	0.00446	140		
2011-03-09-1900	652	4.434	3/9/11 19:00	0.006801	141		
			,				

							A
Hour	OSS	Inc Loss	Date-Time	% Losses		0.45%	
2011-03-09-2000	599	0.519	3/9/11 20:00	0.000866	142		
2011-03-09-2100	599	0.473	3/9/11 21:00	0.00079	143		
2011-03-09-2200	699	1.89	3/9/11 22:00	0.002704	144		
2011-03-09-2300	641	4.888	3/9/11 23:00	0.007626	145		
2011-03-10-0000	188	0.589	3/10/11 0:00	0.003133	146		
2011-03-10-0300	206	0.774	3/10/11 3:00	0.003757	147		
2011-03-10-0400	206	0.784	3/10/11 4:00	0.003806	148		
2011-03-10-0500	206	0.959	3/10/11 5:00	0.004655	149		
2011-03-10-0600	206	1.425	3/10/11 6:00	0.006917	150		
2011-03-10-0700	509	0.921	3/10/11 7:00	0.001809	151		
2011-03-10-0800	399	-2.906	3/10/11 8:00	-0.00728	152		
2011-03-10-0900	380	-2.932	3/10/11 9:00	-0.00772	153		
2011-03-10-1000	279	-3.048	3/10/11 10:00	-0.01092	154		
2011-03-10-1100	249	-3.311	3/10/11 11:00	-0.0133	155		
2011-03-10-1200	299	-3.057	3/10/11 12:00	-0.01022	156		
2011-03-10-1300	274	-2.741	3/10/11 13:00	-0.01	157		
2011-03-10-1400	256	-3.213	3/10/11 14:00	-0.01255	158		
2011-03-10-1400	272	-3.343	3/10/11 15:00	-0.01233	159		
2011-03-10-1500	274	-3.201	3/10/11 15:00	-0.01229	160		
2011-03-10-1000	311	-3.201 -2.414	3/10/11 17:00	-0.01708	161		
		-3.204					
2011-03-10-1800	186		3/10/11 18:00	-0.01723	162		
2011-03-10-2300	199	-0.976	3/10/11 23:00	-0.0049	163		
2011-03-11-0000	456	-2.154	3/11/11 0:00	-0.00472	164		
2011-03-11-0100	356	-3.365	3/11/11 1:00	-0.00945	165		
2011-03-11-0200	349	-3.061	3/11/11 2:00	-0.00877	166		
2011-03-11-0300	456	-0.84	3/11/11 3:00	-0.00184	167		
2011-03-11-0400	501	-0.509	3/11/11 4:00	-0.00102	168		
2011-03-11-0500	484	-0.603	3/11/11 5:00	-0.00125	169		
2011-03-11-0600	438	-1.535	3/11/11 6:00	-0.0035	170		
2011-03-11-0700	126	-1.556	3/11/11 7:00	-0.01235	171		
2011-03-11-1200	137	-1.638	3/11/11 12:00	-0.01196	172		
2011-03-11-1700	137	-0.902	3/11/11 17:00	-0.00658	173		
2011-03-11-1800	347	-1.532	3/11/11 18:00	-0.00441	174		
2011-03-11-1900	345	-2.129	3/11/11 19:00	-0.00617	175		
2011-03-11-2000	216	-1.751	3/11/11 20:00	-0.00811	176		
2011-03-11-2100	249	-2.486	3/11/11 21:00	-0.00998	177		
2011-03-11-2200	294	-2.618	3/11/11 22:00	-0.0089	178		
2011-03-11-2300	295	-4.261	3/11/11 23:00	-0.01444	179		
2011-03-12-0000	151	-3.058	3/12/11 0:00	-0.02025	180		
2011-03-12-0100	148	-2.988	3/12/11 1:00	-0.02019	181		
2011-03-12-0300	100	-1.785	3/12/11 3:00	-0.01785	182		
2011-03-12-0400	200	-1.818	3/12/11 4:00	-0.00909	183		
2011-03-12-0500	249	-1.299	3/12/11 5:00	-0.00522	184		
2011-03-12-0600	199	-1.838	3/12/11 6:00	-0.00924	185		
2011-03-12-0700	102	-1.679	3/12/11 7:00	-0.01646	186		
2011-03-12-0900	149	-2.561	3/12/11 9:00	-0.01719	187		
2011-03-12-1000	250	-3.718	3/12/11 10:00	-0.01487	188		
2011-03-12-1100	325	-3.817	3/12/11 11:00	-0.01174	189		
2011-03-12-1200	383	-3.318	3/12/11 12:00	-0.00866	190		
2011-03-12-1300	325	-1.711	3/12/11 13:00	-0.00526	191		
2011-03-12-1400	328	1.092	3/12/11 14:00	0.003329	192		
2011-03-12-1500	328	1.527	3/12/11 15:00	0.004655	193		
2011-03-12-1600	328	1.313	3/12/11 16:00	0.004003	194		
2011-03-12-1700	328	1.292	3/12/11 17:00	0.003939	195		
2011-03-12-1800	333	1.339	3/12/11 18:00	0.004021	196		
2011-03-12-1900	371	1.396	3/12/11 19:00	0.003763	197		
OU XA 1700	3/1	1.570	51 121 1 1 1 1 1 1 0 0 0	0.000700	177		

Average Incremental Loss Factor

0.45%

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-03-12-2000	385	-0.955	3/12/11 20:00	-0.00248	198
2011-03-12-2100	371	-1.285	3/12/11 20:00	-0.00248	198
2011-03-12-2100	336	-0.409	3/12/11 21:00	-0.00340	200
2011-03-12-2300	333	1.174	3/12/11 22:00	0.00122	200
2011-03-12-2300	328	1.174	3/13/11 0:00	0.003526	201
2011-03-13-0100	149	-0.427	3/13/11 0:00	-0.00287	202
2011-03-13-0100	250	0.518	3/13/11 10:00	0.002072	203
2011-03-13-1000	300	0.717	3/13/11 10:00	0.002072	204
	300	0.717	3/13/11 12:00		203
2011-03-13-1200 2011-03-13-1300		0.774	3/13/11 12:00	0.00258 0.002783	206
2011-03-13-1300	300 250	0.633	3/13/11 13:00	0.002783	207
2011-03-13-1400	249	0.679	3/13/11 14:00	0.002710	208
2011-03-13-1600	250	0.67	3/13/11 15:00	0.002091	209
2011-03-13-1700	250	0.691	3/13/11 17:00	0.002764	211
2011-03-13-1800	380	1.058	3/13/11 18:00	0.002784	212
2011-03-13-1900	385	-0.477	3/13/11 19:00	-0.00124	213
2011-03-13-2000	371	-0.933	3/13/11 20:00	-0.00251	214
2011-03-13-2100	386	-0.379	3/13/11 21:00	-0.00098	215
2011-03-13-2200	386	1.196	3/13/11 22:00	0.003098	216
2011-03-13-2300	353	1.401	3/13/11 23:00	0.003969	217
2011-03-14-0000	328	1.144	3/14/11 0:00	0.003488	218
2011-03-14-0500	100	0.156	3/14/11 5:00	0.00156	219
2011-03-14-0600	330	-4.707	3/14/11 6:00	-0.01426	220
2011-03-14-1800	200	-1.85	3/14/11 18:00	-0.00925	221
2011-03-14-1900	200	-3.073	3/14/11 19:00	-0.01537	222
2011-03-14-2000	175	-3.202	3/14/11 20:00	-0.0183	223
2011-03-14-2100	148	-0.977	3/14/11 21:00	-0.0066	224
2011-03-15-0400	264	0.929	3/15/11 4:00	0.003519	225
2011-03-15-0500	264	0.87	3/15/11 5:00	0.003295	226
2011-03-15-0600	279	0.739	3/15/11 6:00	0.002649	227
2011-03-15-0700	340	-3.575	3/15/11 7:00	-0.01051	228
2011-03-15-0800	197	-2.567	3/15/11 8:00	-0.01303	229
2011-03-15-0900	318	-4.489	3/15/11 9:00	-0.01412	230
2011-03-15-1000	116	0.267	3/15/11 10:00	0.002302	231
2011-03-16-0300	150	-2.265	3/16/11 3:00	-0.0151	232
2011-03-16-0400	319	-2.565	3/16/11 4:00	-0.00804	233
2011-03-16-0500	169	0.749	3/16/11 5:00	0.004432	234
2011-03-16-1100	149	-2.456	3/16/11 11:00	-0.01648	235
2011-03-16-1200	150	-2.435	3/16/11 12:00	-0.01623	236
2011-03-16-1300	230	0.134	3/16/11 13:00	0.000583	237
2011-03-16-1400	240	0.418	3/16/11 14:00	0.001742	238
2011-03-16-1500	240	1.307	3/16/11 15:00 3/16/11 16:00	0.005446 0.004645	239
2011-03-16-1600 2011-03-16-1700	200	0.929			240
2011-03-16-1700	150	0.523	3/16/11 17:00 3/16/11 18:00	0.003487	241 242
	233	0.591		0.002536	
2011-03-16-1900	334	1.293	3/16/11 19:00 3/16/11 20:00	0.003871	243
2011-03-16-2000 2011-03-16-2100	335	-2.523		-0.00753	244
	389	-3.546	3/16/11 21:00	-0.00912	245
2011-03-16-2200 2011-03-17-0500	436 200	-3.456 -1.415	3/16/11 22:00 3/17/11 5:00	-0.00793	246 247
2011-03-17-0500	433	-1.415 -1.556	3/17/11 5:00	-0.00708	247
2011-03-17-0600	204	-2.368	3/17/11 6:00	-0.00359 -0.01161	248 249
2011-03-17-0900	150	-1.973	3/17/11 9:00	-0.01315	250 251
2011-03-17-1000 2011-03-17-1100	150	0.142	3/17/11 10:00	0.000947	251 252
2011-03-17-1100	200	1.702	3/17/11 11:00 3/17/11 12:00	0.00851	252 253
2011-05-1/-1200	242	1.856	5/1//11 12:00	0.007669	253

Average Incremental Loss Factor

0.45%

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-03-17-1300	242	1.83	3/17/11 13:00	0.007562	254
2011-03-17-1400	249	1.695	3/17/11 14:00	0.006807	255
2011-03-17-1500	249	1.331	3/17/11 15:00	0.005345	256
2011-03-17-1600	249	0.996	3/17/11 16:00	0.004	257
2011-03-17-1700	249	0.846	3/17/11 17:00	0.003398	258
2011-03-17-1800	249	0.609	3/17/11 18:00	0.002446	259
2011-03-17-1900	434	1.533	3/17/11 19:00	0.003532	260
2011-03-17-2000	272	0.267	3/17/11 20:00	0.000982	261
2011-03-17-2100	306	-2.254	3/17/11 21:00	-0.00737	262
2011-03-17-2200	201	-2.712	3/17/11 22:00	-0.01349	263
2011-03-18-0600	200	0.604	3/18/11 6:00	0.00302	264
2011-03-18-0700	150	0.183	3/18/11 7:00	0.00122	265
2011-03-18-0800	150	0.455	3/18/11 8:00	0.003033	266
2011-03-18-0900	150	1.224	3/18/11 9:00	0.00816	267
2011-03-18-1000	150	1.085	3/18/11 10:00	0.007233	268
2011-03-18-1100	150	1.182	3/18/11 11:00	0.00788	269
2011-03-18-1200	150	1.052	3/18/11 12:00	0.007013	270
2011-03-18-1300	150	0.739	3/18/11 13:00	0.004927	271
2011-03-18-1400	150	-0.132	3/18/11 14:00	-0.00088	272
2011-03-18-1500	150	-0.317	3/18/11 15:00	-0.00211	273
2011-03-18-1600	150	-0.955	3/18/11 16:00	-0.00637	274
2011-03-18-1700	150	-1.12	3/18/11 17:00	-0.00747	275
2011-03-18-1800	148	-1.02	3/18/11 18:00	-0.00689	276
2011-03-18-1900	149	-0.278	3/18/11 19:00	-0.00187	277
2011-03-18-2000	175	-0.086	3/18/11 20:00	-0.00049	278
2011-03-18-2100	200	-0.398	3/18/11 21:00	-0.00199	279
2011-03-19-0700	248	0.454	3/19/11 7:00	0.001831	280
2011-03-19-0800	300	0.035	3/19/11 8:00	0.000117	281
2011-03-19-0900	369	-2.239	3/19/11 9:00	-0.00607	282
2011-03-19-1000	369	-2.767	3/19/11 10:00	-0.0075	283
2011-03-19-1100	375	-2.589	3/19/11 11:00	-0.0069	284
2011-03-19-1200	360	-0.97	3/19/11 12:00	-0.00269	285
2011-03-19-1300	344	1.806	3/19/11 13:00	0.00525	286
2011-03-19-1400	344	1.543	3/19/11 14:00	0.004485	287
2011-03-19-1500	414	1.842	3/19/11 15:00	0.004449	288
2011-03-19-1600	430	1.809	3/19/11 16:00	0.004207	289
2011-03-19-1700	407	1.662	3/19/11 17:00	0.004084	290
2011-03-19-1800	527	2,422	3/19/11 18:00	0.004596	291
2011-03-19-1900	407	1.467	3/19/11 19:00	0.003604	292
2011-03-19-2000	451	1.831	3/19/11 20:00	0.00406	293
2011-03-19-2100	344	1.434	3/19/11 21:00	0.004169	294
2011-03-19-2200	344	1.292	3/19/11 22:00	0.003756	295
2011-03-19-2300	344	1.528	3/19/11 23:00	0.004442	296
2011-03-20-0000	341	1.55	3/20/11 0:00	0.004545	297
2011-03-20-0100	250	0.971	3/20/11 1:00	0.003884	298
2011-03-20-0200	246	1.03	3/20/11 2:00	0.004187	299
2011-03-20-0300	300	1.495	3/20/11 3:00	0.004983	300
2011-03-20-0400	341	1.644	3/20/11 4:00	0.004821	301
2011-03-20-0500	250	1.181	3/20/11 5:00	0.004724	302
2011-03-20-0600	250	1.104	3/20/11 6:00	0.004416	303
2011-03-20-0700	295	1.315	3/20/11 7:00	0.004458	304
2011-03-20-0800	439	2.324	3/20/11 8:00	0.005294	305
2011-03-20-0900	436	2.087	3/20/11 9:00	0.004787	306
2011-03-20-1000	428	1.757	3/20/11 10:00	0.004105	307
2011-03-20-1100	337	1.401	3/20/11 11:00	0.004157	308
2011-03-20-1200	604	2.909	3/20/11 12:00	0.004816	309

			~322 12011 19 1110101		
Hour	OSS	Inc Loss	Date-Time	% Losses	0.45%
2011-03-20-1300	536	2.655	3/20/11 13:00	0.004953	310
2011-03-20-1400	718	3.57	3/20/11 14:00	0.004972	311
2011-03-20-1500	736	4.104	3/20/11 15:00	0.005576	312
2011-03-20-1600	792	4.61	3/20/11 16:00	0.005821	313
2011-03-20-1700	680	4.075	3/20/11 17:00	0.005993	314
2011-03-20-1800	482	2.759	3/20/11 18:00	0.005724	315
2011-03-20-1900	507	2.364	3/20/11 19:00	0.004663	316
2011-03-20-2000	760	1.365	3/20/11 20:00	0.001796	317
2011-03-20-2100	932	-0.346	3/20/11 21:00	-0.00037	318
2011-03-20-2200	805	-1.06	3/20/11 22:00	-0.00132	319
2011-03-20-2300	458	-2.241	3/20/11 23:00	-0.00489	320
2011-03-21-0000	250	-1.528	3/21/11 0:00	-0.00611	321
2011-03-21-0200	250	-0.344	3/21/11 2:00	-0.00138	322
2011-03-21-0300	250	-0.795	3/21/11 3:00	-0.00318	323
2011-03-21-0400	250	0.422	3/21/11 4:00	0.001688	324
2011-03-21-0500	250	1.781	3/21/11 5:00	0.007124	325
2011-03-21-0600	451	2.704	3/21/11 6:00	0.005996	326
2011-03-21-0700	369	2.777	3/21/11 7:00	0.007526	327
2011-03-21-0800	348	2.795	3/21/11 8:00	0.008032	328
2011-03-21-0900	359	2.736	3/21/11 9:00	0.007621	329
2011-03-21-1000	450	3.789	3/21/11 10:00	0.00842	330
2011-03-21-1100	450	3.755	3/21/11 11:00	0.008344	331
2011-03-21-1200	601	5.661	3/21/11 12:00	0.009419	332
2011-03-21-1300	551	3.996	3/21/11 13:00	0.007252	333
2011-03-21-1400	751	2.205	3/21/11 14:00	0.002936	334
2011-03-21-1500	706	2.014	3/21/11 15:00	0.002853	335
2011-03-21-1600	554	0.288	3/21/11 16:00	0.00052	336
2011-03-21-1700	560	0.222	3/21/11 17:00	0.000396	337
2011-03-21-1800	751	2.99	3/21/11 18:00	0.003981	338
2011-03-21-1900	450	1.741	3/21/11 19:00	0.003869	339
2011-03-21-2000	250	1.363	3/21/11 20:00	0.005452	340
2011-03-21-2100	250	1.916	3/21/11 21:00	0.007664	341
2011-03-21-2200	250	1.609	3/21/11 22:00	0.006436	342
2011-03-21-2300	219	1.284	3/21/11 23:00	0.005863	343
2011-03-22-0600	425	2.769	3/22/11 6:00	0.006515	344
2011-03-22-0700	748	2.041	3/22/11 7:00	0.002729	345
2011-03-22-0800	575	0.165	3/22/11 8:00	0.000287	346
2011-03-22-0900	425	-0.808	3/22/11 9:00	-0.0019	347
2011-03-22-1000	425	-0.762	3/22/11 10:00	-0.00179	348
2011-03-22-1100	375	-2.085	3/22/11 11:00	-0.00556	349
2011-03-22-1200	325	-2.483	3/22/11 12:00	-0.00764	350
2011-03-22-1300	425	-4.077	3/22/11 13:00	-0.00959	351
2011-03-22-1400	299	-2.59	3/22/11 14:00	-0.00866	352
2011-03-22-1500	400	-4.155	3/22/11 15:00	-0.01039	353
2011-03-22-1600	299	-3.228	3/22/11 16:00	-0.0108	354
2011-03-22-1700	316	-3.579	3/22/11 17:00	-0.01133	355
2011-03-22-1800	462	-0.655	3/22/11 18:00	-0.00142	356
2011-03-23-0500	390	2.379	3/23/11 5:00	0.0061	357
2011-03-23-0600	273	1.423	3/23/11 6:00	0.005212	358
2011-03-23-0700	166	0.712	3/23/11 7:00	0.004289	359
2011-03-23-0900	100	-0.052	3/23/11 9:00	-0.00052	360
2011-03-23-1000	150	0.135	3/23/11 10:00	0.0009	361
2011-03-23-1100	159	-0.257	3/23/11 11:00	-0.00162	362
2011-03-23-1200	155	-0.463	3/23/11 12:00	-0.00299	363
2011-03-23-1500	150	-0.592	3/23/11 15:00	-0.00395	364
2011-03-23-1600	196	-1.234	3/23/11 16:00	-0.0063	365

Average Incremental Loss Factor

0.45%

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-03-23-1700	400	-4.325	3/23/11 17:00	-0.01081	366
2011-03-23-1800	550	-4.976	3/23/11 18:00	-0.00905	367
2011-03-23-1900	449	-4.409	3/23/11 19:00	-0.00982	368
2011-03-23-2000	375	-3.97	3/23/11 20:00	-0.01059	369
2011-03-23-2100	400	-5.338	3/23/11 21:00	-0.01335	370
2011-03-23-2200	350	-4.945	3/23/11 22:00	-0.01413	371
2011-03-23-2300	350	2.127	3/23/11 23:00	0.006077	372
2011-03-24-0000	350	2.881	3/24/11 0:00	0.008231	373
2011-03-24-0100	350	2.863	3/24/11 1:00	0.00818	374
2011-03-24-0200	350	2.218	3/24/11 2:00	0.006337	375
2011-03-24-0300	350	2.556	3/24/11 3:00	0.007303	376
2011-03-24-0400	350	2.744	3/24/11 4:00	0.00784	377
2011-03-24-0500	346	2.478	3/24/11 5:00	0.007162	378
2011-03-24-0600	400	-0.554	3/24/11 6:00	-0.00139	379
2011-03-24-0700	175	-1.309	3/24/11 7:00	-0.00748	380
2011-03-25-0000	187	1.579	3/25/11 0:00	0.008444	381
2011-03-25-0400	200	2.112	3/25/11 4:00	0.01056	382
2011-03-25-0500	300	3.352	3/25/11 5:00	0.011173	383
2011-03-26-0400	100	0.968	3/26/11 4:00	0.00968	384
2011-03-26-0500	100	0.553	3/26/11 5:00	0.00553	385
2011-03-26-1400	100	-0.189	3/26/11 14:00	-0.00189	386
2011-03-26-1500	200	0.736	3/26/11 15:00	0.00368	387
2011-03-26-1600	200	0.96	3/26/11 16:00	0.0048	388
2011-03-26-1700	150	0.849	3/26/11 17:00	0.00566	389
2011-03-27-0500	150	1.57	3/27/11 5:00	0.010467	390
2011-03-27-1500	124	1.854	3/27/11 15:00	0.014952	391
2011-03-27-1600	242	2.698	3/27/11 16:00	0.011149	392
2011-03-27-1700	117	1.575	3/27/11 17:00	0.013462	393
2011-03-27-1800	145	1.714	3/27/11 18:00	0.011821	394
2011-03-27-1900	209	1.169	3/27/11 19:00	0.005593	395
2011-03-27-2300	125	-0.361	3/27/11 23:00	-0.00289	396
2011-03-28-0000	225	0.96	3/28/11 0:00	0.004267	397
2011-03-28-0100	200	2.889	3/28/11 1:00	0.014445	398
2011-03-28-0200	200	3.177	3/28/11 2:00	0.015885	399
2011-03-28-0300	200	2.978	3/28/11 3:00	0.01489	400
2011-03-28-0400	200	2.086	3/28/11 4:00	0.01043	401
2011-03-30-0200	276	0.088	3/30/11 2:00	0.000319	402
2011-03-30-0300	281	0.138	3/30/11 3:00	0.000491	403
2011-03-30-0400	355	0.549	3/30/11 4:00	0.001546	404
2011-03-30-0500	180	-0.171	3/30/11 5:00	-0.00095	405
2011-03-30-2100	100	-0.094	3/30/11 21:00	-0.00094	406
2011-03-30-2200	200	0.152	3/30/11 22:00	0.00076	407
2011-03-30-2300	300	1.886	3/30/11 23:00	0.006287	408
2011-03-31-0000	280	2.621	3/31/11 0:00	0.009361	409
2011-03-31-0100	200	0.79	3/31/11 1:00	0.00395	410
2011-03-31-0500	300	1.438	3/31/11 5:00	0.004793	411
2011-03-31-0600	199	-0.007	3/31/11 6:00	-3.5E-05	412
2011-03-31-1200	197	-1.753	3/31/11 12:00	-0.0089	413
2011-03-31-1300	247	-2.289	3/31/11 13:00	-0.00927	414
2011-03-31-1400	380	-1.963	3/31/11 14:00	-0.00517	415
2011-03-31-1500	279	-1.93	3/31/11 15:00	-0.00692	416
2011-03-31-1600	280	-2.787	3/31/11 16:00	-0.00995	417
2011-03-31-1700	480	-2.777	3/31/11 17:00	-0.00579	418
2011-03-31-1800	279	-3.244	3/31/11 18:00	-0.01163	419
2011-03-31-1900	318	-3.747	3/31/11 19:00	-0.01178	420
2011-03-31-2000	328	-2.117	3/31/11 20:00	-0.00645	421

LGEE Hourly Incremental Losses						Assessed Two many on to I			
**	000		no a mer	0/ 7		0.450/	Average Incremental		
Hour	OSS	Inc Loss	Date-Time	% Losses -0.01206	422	0.45%	Loss Factor		
2011-03-31-2100	226	-2.725	3/31/11 21:00		422				
2011-03-31-2200 2011-03-31-2300	326 300	-4.101 -1.055	3/31/11 22:00 3/31/11 23:00	-0.01258 -0.00352	423 424				
2011-03-31-2300	230	1.224	4/1/11 0:00	0.005322	1	424	136,987 -63		
2011-04-01-0000	188	1.514	4/1/11 1:00	0.003322	2	avg			
2011-04-01-0100	249	1.896	4/1/11 1:00	0.008633	3	avg	mgs.mm.929.mss.as.a		
2011-04-01-0200	249	1.643	4/1/11 3:00	0.007614	4				
2011-04-01-0300	249	1.713	4/1/11 4:00	0.00688	5				
2011-04-01-0500	349	2.825	4/1/11 5:00	0.008095	6				
2011-04-01-0500	213	-1.499	4/1/11 6:00	-0.00704	7				
2011-04-01-0900	199	-0.866	4/1/11 9:00	-0.00435	8				
2011-04-01-1000	348	2.965	4/1/11 10:00	0.00852	9				
2011-04-01-1100	479	3.862	4/1/11 11:00		10				
2011-04-01-1200	429	3.903	4/1/11 12:00	0.009098	11				
2011-04-01-1300	279	2.527	4/1/11 13:00		12				
2011-04-01-1400	279	2.101	4/1/11 14:00	0.00753	13				
2011-04-01-1500	279	2.103	4/1/11 15:00		14				
2011-04-01-1600	249	1.664	4/1/11 16:00		15				
2011-04-01-1700	249	1.48	4/1/11 17:00		16				
2011-04-01-1800	249	1.338	4/1/11 18:00		17				
2011-04-01-1900	249	1.294	4/1/11 19:00	0.005197	18				
2011-04-01-2000	247	1.473	4/1/11 20:00	0.005964	19				
2011-04-01-2100	249	1.723	4/1/11 21:00	0.00692	20				
2011-04-01-2200	325	1.558	4/1/11 22:00	0.004794	21				
2011-04-02-0000	199	1.084	4/2/11 0:00	0.005447	22				
2011-04-02-1900	149	0.513	4/2/11 19:00	0.003443	23				
2011-04-02-2200	136	0.308	4/2/11 22:00	0.002265	24				
2011-04-02-2300	249	1.391	4/2/11 23:00	0.005586	25				
2011-04-03-0000	348	2.847	4/3/11 0:00		26				
2011-04-03-0100	149	1.061	4/3/11 1:00		27				
2011-04-03-0200	151	0.856	4/3/11 2:00		28				
2011-04-03-0300	249	1.827	4/3/11 3:00		29				
2011-04-03-0500	248	1.922	4/3/11 5:00	0.00775	30				
2011-04-03-0600	334	2.991	4/3/11 6:00		31				
2011-04-03-0700	418	3.707	4/3/11 7:00		32				
2011-04-03-0800	399	3.622	4/3/11 8:00		33				
2011-04-03-0900 2011-04-03-1000	399	3.433 3.268	4/3/11 9:00 4/3/11 10:00		34 35				
2011-04-03-1000	419 394	3.208	4/3/11 11:00		36				
2011-04-03-1100	369	2.901	4/3/11 11:00		37				
2011-04-03-1200	369	3.174	4/3/11 13:00		38				
2011-04-03-1300	369	3.223	4/3/11 14:00		39				
2011-04-03-1400	369	3.158	4/3/11 15:00		40				
2011-04-03-1600	369	3.493	4/3/11 16:00		41				
2011-04-03-1700	370	3.445	4/3/11 17:00		42				
2011-04-03-1800	469	4.353	4/3/11 18:00		43				
2011-04-03-1900	387	3.224	4/3/11 19:00	0.008331	44				
2011-04-03-2000	200	0.9	4/3/11 20:00	0.0045	45				
2011-04-03-2100	199	0.428	4/3/11 21:00	0.002151	46				
2011-04-03-2200	224	1.201	4/3/11 22:00	0.005362	47				
2011-04-03-2300	299	1.606	4/3/11 23:00	0.005371	48				
2011-04-04-0000	300	1.417	4/4/11 0:00	0.004723	49				
2011-04-04-0100	100	0.337	4/4/11 1:00	0.00337	50				
2011-04-05-0000	225	2.478	4/5/11 0:00		51				
2011-04-05-0100	199	1.462	4/5/11 1:00		52				
2011-04-06-0400	149	0.57	4/6/11 4:00	0.003826	53				

Average Incremental Loss Factor

0.45%

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-04-06-2300	130	0.218	4/6/11 23:00	0.001677	54
2011-04-11-2300	249	2.099	4/11/11 23:00	0.00843	55
2011-04-12-0600	349	1.456	4/12/11 6:00	0.004172	56
2011-04-13-2300	149	0.691	4/13/11 23:00	0.004638	57
2011-04-14-2300	199	0.806	4/14/11 23:00	0.00405	58
2011-04-15-0500	299	1.758	4/15/11 5:00	0.00588	59
2011-04-15-0600	299	2.321	4/15/11 6:00	0.007763	60
2011-04-15-0700	137	1.264	4/15/11 7:00	0.009226	61
2011-04-15-1700	149	1.598	4/15/11 17:00	0.010725	62
2011-04-15-1800	199	2.101	4/15/11 18:00	0.010723	63
2011-04-15-1900	199	1.63	4/15/11 19:00	0.008191	64
2011-04-15-2000	149	1.408	4/15/11 20:00	0.00945	65
2011-04-15-2200	149	1.642	4/15/11 22:00	0.01102	66
2011-04-16-0000	199	1.523	4/16/11 0:00	0.007653	67
2011-04-16-0400	149	0.196	4/16/11 4:00	0.007033	68
2011-04-16-0500	247	0.517	4/16/11 5:00	0.002093	69
2011-04-17-0600	199	-0.164	4/17/11 6:00	-0.00082	70
2011-04-17-0700	149	-0.155	4/17/11 7:00	-0.00104	71
2011-04-17-1200	199	0.192	4/17/11 12:00	0.000965	72
2011-04-17-1200	319	1.213	4/17/11 12:00	0.003803	73
2011-04-17-1300	318	1.429	4/17/11 14:00	0.003803	74
2011-04-17-1700	199	0.25	4/17/11 17:00	0.004454	75
2011-04-17-1800	434	3.084	4/17/11 17:00	0.007236	7 <i>5</i>
2011-04-17-1900	299	2.145	4/17/11 19:00	0.007174	77
2011-04-17-2000	249	1.278	4/17/11 19:00	0.007174	78
2011-04-17-2100	249	0.778	4/17/11 20:00	0.003133	78 79
2011-04-17-2100	249	0.778	4/17/11 21:00	0.003124	80
2011-04-17-2300	299	0.330	4/17/11 23:00	0.002133	81
2011-04-17-2300	299	1.024	4/17/11 23:00	0.002933	82
2011-04-18-0500	199	0.002	4/18/11 5:00	1.01E-05	83
2011-04-18-0600	149	-0.747	4/18/11 6:00	-0.00501	84
2011-04-19-0600	149	-0.362	4/19/11 6:00	-0.00301	85
2011-04-22-2100	150	-0.142	4/22/11 21:00	-0.00245	86
2011-04-22-2100	150	-0.172	4/22/11 21:00	-0.00251	87
2011-04-22-2300	217	0.431	4/22/11 23:00	0.001986	88
2011-04-23-0200	140	0.478	4/23/11 2:00	0.003414	89
2011-04-23-0500	239	0.964	4/23/11 5:00	0.004033	90
2011-04-23-0600	365	1.594	4/23/11 6:00	0.004367	91
2011-04-23-0700	235	0.517	4/23/11 7:00	0.0022	92
2011-04-23-0800	228	0.365	4/23/11 8:00	0.001601	93
2011-04-23-0900	178	-0.61	4/23/11 9:00	-0.00343	94
2011-04-23-2100	112	-0.27	4/23/11 21:00	-0.00241	95
2011-04-23-2200	211	0.209	4/23/11 22:00	0.000991	96
2011-04-23-2300	111	0.197	4/23/11 23:00	0.001775	97
2011-04-24-0000	106	0.261	4/24/11 0:00	0.002462	98
2011-04-24-0200	100	0.343	4/24/11 2:00	0.00343	99
2011-04-24-0300	200	0.591	4/24/11 3:00	0.002955	100
2011-04-24-0400	200	0.584	4/24/11 4:00	0.00292	101
2011-04-24-0500	197	0.616	4/24/11 5:00	0.003127	102
2011-04-24-0600	200	0.664	4/24/11 6:00	0.00332	103
2011-04-24-0700	384	0.621	4/24/11 7:00	0.001617	104
2011-04-24-0800	585	1.036	4/24/11 8:00	0.001771	105
2011-04-24-0900	650	1.195	4/24/11 9:00	0.001838	106
2011-04-24-1000	656	1.807	4/24/11 10:00	0.002755	107
2011-04-24-1100	656	2.119	4/24/11 11:00	0.00323	108
2011-04-24-1200	805	2.971	4/24/11 12:00	0.003691	109
					- 0 2

			LGEE Hourly Increi	nental Losse	es		Avanaga Inggamental
Hour	oss	Inc Loss	Date-Time	% Losses		0.45%	Average Incremental Loss Factor
2011-04-24-1300	658	1.773	4/24/11 13:00		110	0.4370	Loss Factor
2011-04-24-1400	682	2.035	4/24/11 14:00		111		
2011-04-24-1500	749	2.537	4/24/11 15:00		112		
2011-04-24-1600	607	1.183	4/24/11 16:00		113		
2011-04-24-1700	602	1.086	4/24/11 17:00		114		
2011-04-24-1800	693	1.426	4/24/11 18:00		115		
2011-04-24-1900	726	1.296	4/24/11 19:00		116		
2011-04-24-2000	631	0.32	4/24/11 20:00		117		
2011-04-24-2100	439	-1.164	4/24/11 21:00		118		
2011-04-24-2200	489	-0.352	4/24/11 22:00		119		
2011-04-24-2300	250	0.87	4/24/11 23:00	0.00348	120		
2011-04-25-0000	250	1,131	4/25/11 0:00	0.004524	121		
2011-04-25-0100	250	1.225	4/25/11 1:00	0.0049	122		
2011-04-25-0600	250	-0.179	4/25/11 6:00	-0.00072	123		
2011-04-25-0700	200	-1.714	4/25/11 7:00	-0.00857	124		
2011-04-27-0100	100	-0.081	4/27/11 1:00	-0.00081	125		
2011-04-27-0200	102	0.128	4/27/11 2:00	0.001255	126		
2011-04-28-0700	100	-1.329	4/28/11 7:00	-0.01329	127		
2011-04-29-0000	100	-0.673	4/29/11 0:00	-0.00673	128		
2011-04-29-1900	100	-1.686	4/29/11 19:00	-0.01686	129		
2011-04-29-2000	199	-1.217	4/29/11 20:00		130		
2011-04-29-2100	200	-1.285	4/29/11 21:00		131		
2011-04-29-2200	100	-1.517	4/29/11 22:00		132		
2011-04-29-2300	100	0.147	4/29/11 23:00	0.00147	133		
2011-04-30-0800	299	1.394	4/30/11 8:00		134		
2011-04-30-0900	310	0.317	4/30/11 9:00		135		
2011-04-30-1000	200	0.204	4/30/11 10:00	0.00102	136		
2011-04-30-1300	100	-0.085	4/30/11 13:00		137		
2011-04-30-1400	150	0.398	4/30/11 14:00		138		
2011-04-30-1500	200	0.793	4/30/11 15:00		139		
2011-04-30-1600	199	0.801	4/30/11 16:00		140		
2011-04-30-1700	300	1.485	4/30/11 17:00	0.00495	141		
2011-04-30-1800	400	-0.172	4/30/11 18:00 4/30/11 19:00		142		
2011-04-30-1900 2011-04-30-2000	400 350	-0.973 -1.519	4/30/11 19:00	-0.00243 -0.00434	143 144		
2011-04-30-2000	425	-0.177	4/30/11 20:00	-0.00434	144		
2011-04-30-2100	425	1.615	4/30/11 22:00	0.0038	146		
2011-05-01-0900	358	1.654	5/1/11 9:00		1	146	41,662 162
2011-05-01-1000	506	3.477	5/1/11 10:00		2	avo	285 1.113 0.390%
2011-05-01-1100	507	3.406	5/1/11 11:00		3	415	
2011-05-01-1200	507	3.223	5/1/11 12:00		4		
2011-05-01-1300	525	2.585	5/1/11 13:00		5		
2011-05-01-1400	511	2.39	5/1/11 14:00		6		
2011-05-01-1500	510	2.244	5/1/11 15:00	0.0044	7		
2011-05-01-1600	298	1.826	5/1/11 16:00	0.006128	8		
2011-05-01-1700	398	2.054	5/1/11 17:00	0.005161	9		
2011-05-01-1800	398	0.612	5/1/11 18:00	0.001538	10		
2011-05-01-1900	398	0.538	5/1/11 19:00	0.001352	11		
2011-05-01-2000	298	-0.427	5/1/11 20:00		12		
2011-05-01-2100	298	-0.273	5/1/11 21:00		13		
2011-05-01-2200	398	0.911	5/1/11 22:00		14		
2011-05-01-2300	598	3.459	5/1/11 23:00		15		
2011-05-02-0000	498	3.13	5/2/11 0:00		16		
2011-05-02-0500	298	-0.229	5/2/11 5:00		17		
2011-05-02-0600	559	-1.756	5/2/11 6:00		18		
2011-05-02-0700	286	-4.226	5/2/11 7:00	-0.01478	19		

Hour	OSS	Inc Loss	Date-Time	% Losses	0.45%
2011-05-02-0800	136	-1.692	5/2/11 8:00	-0.01244	20
2011-05-02-0900	148	-1.753	5/2/11 9:00	-0.01184	21
2011-05-02-1200	148	-0.242	5/2/11 12:00	-0.00164	22
2011-05-02-1300	148	0.236	5/2/11 13:00	0.001595	23
2011-05-02-1400	148	-0.465	5/2/11 14:00	-0.00314	24
2011-05-02-1500	148	0.087	5/2/11 15:00	0.000588	25
2011-05-02-1600	248	-1.31	5/2/11 16:00	-0.00528	26
2011-05-02-1700	198	-1.318	5/2/11 17:00	-0.00666	27
2011-05-02-1800	198	-1.405	5/2/11 18:00	~0.0071	28
2011-05-02-1900	186	-1.131	5/2/11 19:00	-0.00608	29
2011-05-02-2000	298	-3.815	5/2/11 20:00	-0.0128	30
2011-05-02-2100	148	-1.386	5/2/11 21:00	-0.00936	31
2011-05-02-2200	236	-4.021	5/2/11 22:00	-0.01704	32
2011-05-02-2300	349	-1.091	5/2/11 23:00	-0.00313	33
2011-05-03-0000	248	1.433	5/3/11 0:00	0.005778	34
2011-05-03-0100	199	0.734	5/3/11 1:00	0.003688	35
2011-05-03-0200	200	0.445	5/3/11 2:00	0.002225	36
2011-05-03-0300	198	0.289	5/3/11 3:00	0.00146	37
2011-05-03-0400	199	0.273	5/3/11 4:00	0.001372	38
2011-05-03-0500	399	1.232	5/3/11 5:00	0.003088	39
2011-05-03-0600	499	-2.766	5/3/11 6:00	-0.00554	40
2011-05-03-0700	199	-1.394	5/3/11 7:00	-0.00701	41
2011-05-03-1200	150	0.837	5/3/11 12:00	0.00558	42
2011-05-03-1300	150	0.787	5/3/11 13:00	0.005247	43
2011-05-03-1400	150	0.81	5/3/11 14:00	0.0054	44
2011-05-03-1500	150	0.808	5/3/11 15:00	0.005387	45
2011-05-03-1600	150	0.881	5/3/11 16:00	0.005873	46
2011-05-04-0000	169	0.24	5/4/11 0:00	0.00142	47
2011-05-04-1900	199	-4.039	5/4/11 19:00	-0.0203	48
2011-05-04-2000	107	-1.504	5/4/11 20:00	-0.01406	49
2011-05-06-0600	199	-2.305	5/6/11 6:00	-0.01158	50
2011-05-06-0900	125	-2.247	5/6/11 9:00	-0.01798	51
2011-05-06-1000	125	-2.203	5/6/11 10:00	-0.01762	52
2011-05-06-1100	210	-1.808	5/6/11 11:00	-0.00861	53
2011-05-06-1200	279	-0.868	5/6/11 12:00	-0.00311	54
2011-05-06-1300	458	0.522	5/6/11 13:00	0.00114	55
2011-05-06-1400	393	-0.607	5/6/11 14:00	-0.00154	56
2011-05-06-1500	400	0.215	5/6/11 15:00	0.000538	57
2011-05-06-1600	400	1.21	5/6/11 16:00	0.003025	58
2011-05-06-1700	500	2.578	5/6/11 17:00	0.005156	59
2011-05-06-1800	722	9	5/6/11 18:00	0.012465	60
2011-05-06-1900	859	9.508	5/6/11 19:00	0.011069	61
2011-05-06-2000	846	9.84	5/6/11 20:00	0.011631	62
2011-05-06-2100	500	6.237	5/6/11 21:00	0.012474	63
2011-05-07-0700	250	1.831	5/7/11 7:00	0.007324	64
2011-05-07-0800	300	2.508	5/7/11 8:00	0.00836	65
2011-05-07-0900	300	2.254	5/7/11 9:00	0.007513	66
2011-05-07-1000	450	3.377	5/7/11 10:00	0.007504	67
2011-05-07-1100	400	3.17	5/7/11 11:00	0.007925	68
2011-05-07-1200	250	2.336	5/7/11 12:00	0.009344	69
2011-05-07-1300	300	3.466	5/7/11 13:00	0.011553	70
2011-05-07-1400	349	3.747	5/7/11 14:00	0.010736	71
2011-05-07-1500	549	5.804	5/7/11 15:00	0.010572	72
2011-05-07-1600	525	5.342	5/7/11 16:00	0.010175	73
2011-05-07-1700	425	3.985	5/7/11 17:00	0.009376	74
2011-05-07-1800	425	4.034	5/7/11 18:00	0.009492	75

Average Incremental Loss Factor

0.45%

			.		
Hour	OSS	Inc Loss	Date-Time	% Losses	
2011-05-07-1900	627	6.264	5/7/11 19:00	0.00999	76
2011-05-07-2000	676	7.259	5/7/11 20:00	0.010738	77
2011-05-07-2100	880	9.033	5/7/11 21:00	0.010265	78
2011-05-07-2200	750	8.218	5/7/11 22:00	0.010957	79
2011-05-07-2300	612	5.698	5/7/11 23:00	0.00931	80
2011-05-08-0000	400	3.235	5/8/11 0:00	0.008088	81
2011-05-08-0900	100	0.746	5/8/11 9:00	0.00746	82
2011-05-08-1000	300	2.242	5/8/11 10:00	0.007473	83
2011-05-08-1100	300	2.257	5/8/11 11:00	0.007523	84
2011-05-08-1200	390	3.33	5/8/11 12:00	0.008538	85
2011-05-08-1300	500	5,44	5/8/11 13:00	0.01088	86
2011-05-08-1400	800	9.411	5/8/11 14:00	0.011764	87
2011-05-08-1500	800	10.519	5/8/11 15:00	0.013149	88
2011-05-08-1600	750	8.468	5/8/11 16:00	0.011291	89
2011-05-08-1700	650	7.862	5/8/11 17:00	0.012095	90
2011-05-08-1800	460	4.417	5/8/11 18:00	0.009602	91
2011-05-08-1900	454	4.303	5/8/11 19:00	0.009478	92
2011-05-08-2000	460	4.144	5/8/11 20:00	0.009009	93
2011-05-08-2100	460	4.428	5/8/11 21:00	0.009626	94
2011-05-08-2200	525	7.005	5/8/11 22:00	0.013343	95
2011-05-08-2300	785	8.844	5/8/11 23:00	0.011266	96
2011-05-09-0000	600	5.518	5/9/11 0:00	0.009197	97
2011-05-09-0100	300	1.96	5/9/11 1:00	0.006533	98
2011-05-09-0600	413	2.338	5/9/11 6:00	0.005661	99
2011-05-09-0700	708	4.314	5/9/11 7:00	0.006093	100
2011-05-09-0800	650	5.088	5/9/11 8:00	0.007828	101
2011-05-09-0900	703	3.924	5/9/11 9:00	0.005582	102
2011-05-09-1000	650	1.488	5/9/11 10:00	0.002289	103
2011-05-09-1100	550	-0.234	5/9/11 11:00	-0.00043	104
2011-05-09-1200	445	-1.797	5/9/11 12:00	-0.00404	105
2011-05-09-1300	300	-3.319	5/9/11 13:00	-0.01106	106
2011-05-09-1400	299	-2.892	5/9/11 14:00	-0.00967	107
2011-05-09-1500	400	-1.289	5/9/11 15:00	-0.00322	108
2011-05-09-1600	164	1.606	5/9/11 16:00	0.009793	109
2011-05-09-1700	153	0.339	5/9/11 17:00	0.002216	110
2011-05-09-1800	150	0.461	5/9/11 18:00	0.003073	111
2011-05-09-1900	187	0.274	5/9/11 19:00	0.001465	112
2011-05-09-2000	196	1.14	5/9/11 20:00	0.005816	113
2011-05-09-2100	164	0.706	5/9/11 21:00	0.004305	114
2011-05-09-2200	199	1.916	5/9/11 22:00	0.009628	115
2011-05-10-0600	390	-0.707	5/10/11 6:00	-0.00181	116
2011-05-10-0700	325	-2.348	5/10/11 7:00	-0.00722	117
2011-05-10-0800	300	-2.531	5/10/11 8:00	-0.00844	118
2011-05-11-0000	228	-1.738	5/11/11 0:00	-0.00762	119
2011-05-11-0500	400	0.941	5/11/11 5:00	0.002353	120
2011-05-11-0600	301	-2.289	5/11/11 6:00	-0.0076	121
2011-05-11-0700	251	-4.968	5/11/11 7:00	-0.01979	122
2011-05-12-0000	100	-1.671	5/12/11 0:00	-0.01671	123
2011-05-12-0100	200	0.517	5/12/11 1:00	0.002585	124
2011-05-12-0200	396	2.848	5/12/11 2:00	0.007192	125
2011-05-12-0300	400	2.799	5/12/11 3:00	0.006998	126
2011-05-12-0400	400	2.606	5/12/11 4:00	0.006515	127
2011-05-12-0500	400	2.655	5/12/11 5:00	0.006638	128
2011-05-12-0600	101	-0.748	5/12/11 6:00	-0.00741	129
2011-05-13-0100	198	0.772	5/13/11 1:00	0.003899	130
2011-05-13-0200	161	0.655	5/13/11 2:00	0.004068	131

Average Incremental ces 0.45% Loss Factor

Hour	oss	Inc Loss	Date-Time	% Losses	(
2011-05-13-0500	198	0.799	5/13/11 5:00	0.004035	132
2011-05-13-0600	433	3.358	5/13/11 6:00	0.007755	133
2011-05-13-0700	366	2.652	5/13/11 7:00	0.007246	134
2011-05-13-0800	453	1.328	5/13/11 8:00	0.002932	135
2011-05-13-0900	363	-3.05	5/13/11 9:00	-0.0084	136
2011-05-13-1000	188	-3.378	5/13/11 10:00	-0.01797	137
2011-05-13-1100	124	-0.403	5/13/11 11:00	-0.00325	138
2011-05-13-1200	138	-0.298	5/13/11 12:00	-0.00216	139
2011-05-13-1300	100	0.162	5/13/11 13:00	0.00162	140
2011-05-13-1600	145	-0.406	5/13/11 16:00	-0.0028	141
2011-05-13-1800	125	-2.465	5/13/11 18:00	-0.01972	142
2011-05-13-1900	188	-2.874	5/13/11 19:00	-0.01529	143
2011-05-13-2000	193	-0.714	5/13/11 20:00	-0.0037	144
2011-05-13-2100	147	-0.738	5/13/11 21:00	-0.00502	145
2011-05-13-2300	197	-1.165	5/13/11 23:00	-0.00591	146
2011-05-14-0000	197	0.512	5/14/11 0:00	0.002599	147
2011-05-14-0300	100	-0.087	5/14/11 3:00	-0.00087	148
2011-05-14-0400	100	-0.106	5/14/11 4:00	-0.00106	149
2011-05-14-0600	100	-0.234	5/14/11 6:00	-0.00234	150
2011-05-14-0800	200	-0.106	5/14/11 8:00	-0.00053	151
2011-05-14-0900	325	-0.245	5/14/11 9:00	-0.00075	152
2011-05-14-1000	325	-3.174	5/14/11 10:00	-0.00977	153
2011-05-14-1100	163	-2.162	5/14/11 11:00	-0.01326	154
2011-05-14-1200	200	-2.898	5/14/11 12:00	-0.01449	155
2011-05-14-1300	228	-3.872	5/14/11 13:00	-0.01698	156
2011-05-14-1400	287	-3.97	5/14/11 14:00	-0.01383	157
2011-05-14-1500	375	-5.469	5/14/11 15:00	-0.01458	158
2011-05-14-1600	150	-2.517	5/14/11 16:00	-0.01678	159
2011-05-14-1700	150	-2.887	5/14/11 17:00	-0.01925	160
2011-05-14-1800	250	-4.03	5/14/11 18:00	-0.01612	161
2011-05-14-1900	200	-3.212	5/14/11 19:00	-0.01606	162
2011-05-14-2000	200	-3.413	5/14/11 20:00	-0.01707	163
2011-05-15-1000	100	-0.014	5/15/11 10:00	-0.00014	164
2011-05-15-1100	100	-0.019	5/15/11 11:00	-0.00019	165
2011-05-15-1200	100	0.064	5/15/11 12:00	0.00064	166
2011-05-15-1300	300	1.531	5/15/11 13:00	0.005103	167
2011-05-15-1400	300	1.581	5/15/11 14:00	0.00527	168
2011-05-15-1500	300	1.472	5/15/11 15:00	0.004907	169
2011-05-15-1600	300	1.522	5/15/11 16:00		170
2011-05-15-1700	300	1.621	5/15/11 17:00	0.005403	171
2011-05-15-1800	300	-1.435	5/15/11 18:00	-0.00478	172
2011-05-15-1900	300	-2.53	5/15/11 19:00	-0.00843	173
2011-05-15-2000	224	-3.088	5/15/11 20:00	-0.01379	174
2011-05-15-2100	150	-2.128	5/15/11 21:00	-0.01419	175
2011-05-15-2200	200	0.272	5/15/11 22:00	0.00136	176
2011-05-15-2300	200	1.015	5/15/11 23:00	0.005075	177
2011-05-16-0700	250	0.682	5/16/11 7:00	0.002728	178
2011-05-16-0800	256	0.322	5/16/11 8:00	0.001258	179
2011-05-16-0900	250	-1.294	5/16/11 9:00	-0.00518	180
2011-05-16-1000	250	-1.331	5/16/11 10:00	-0.00532	181
2011-05-16-1100	238	-0.674	5/16/11 11:00	-0.00283	182
2011-05-16-1200 2011-05-16-1300	301 150	0.025 -1.563	5/16/11 12:00 5/16/11 13:00	8.31E-05 -0.01042	183 184
2011-05-16-1300	300	0.847	5/16/11 14:00	0.002823	184
2011-05-16-1400	400	1.845	5/16/11 15:00	0.002823	186
2011-05-16-1500	300	0.558	5/16/11 15:00	0.004613	180
2011-03-10-1000	500	0.550	Ji 10/11 10.00	0.00100	107

Average Incremental Loss Factor

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-05-16-1700	500	2.163	5/16/11 17:00	0.004326	188
2011-05-16-1800	299	-0.331	5/16/11 18:00	-0.00111	189
2011-05-16-1900	548	-0.856	5/16/11 19:00	-0.00111	190
2011-05-16-2000	395	-3.883	5/16/11 20:00	-0.00130	191
2011-05-16-2100	400	-2.587	5/16/11 21:00	-0.00983	192
2011-05-16-2200	300	0.726	5/16/11 22:00	0.00242	193
2011-05-16-2300	300	2.616	5/16/11 23:00	0.00242	193
2011-05-10-2300	400	4.159	5/17/11 0:00	0.00372	194
2011-05-17-0000	188	1.392	5/17/11 1:00	0.010398	196
2011-05-17-0600	450	3.422	5/17/11 6:00	0.007404	190
2011-05-17-0000	698	6.82	5/17/11 7:00	0.007004	197
2011-05-17-0800	598	3.079	5/17/11 7:00	0.009771	198
2011-05-17-0900	394	0.063	5/17/11 9:00	0.00016	200
2011-05-17-1000	450	-1.107	5/17/11 10:00	-0.00246	201
2011-05-17-1100	400	-2.071	5/17/11 11:00	-0.00518	202
2011-05-17-1200	400	-2.754	5/17/11 12:00	-0.00689	203
2011-05-17-1300	475	-2.591	5/17/11 13:00	-0.00545	204
2011-05-17-1400	555	-1.446	5/17/11 14:00	-0.00261	205
2011-05-17-1500	550	-0.005	5/17/11 15:00	-9.1E-06	206
2011-05-17-1600	699	2.08	5/17/11 16:00	0.002976	207
2011-05-17-1700	800	0.786	5/17/11 17:00	0.000983	208
2011-05-17-1800	800	-0.701	5/17/11 18:00	-0.00088	209
2011-05-17-1900	725	-1.003	5/17/11 19:00	-0.00138	210
2011-05-17-2000	675	-1.26	5/17/11 20:00	-0.00187	211
2011-05-17-2100	650	0.737	5/17/11 21:00	0.001134	212
2011-05-17-2200	700	7.591	5/17/11 22:00	0.010844	213
2011-05-17-2300	700	8.139	5/17/11 23:00	0.011627	214
2011-05-18-0000	300	2.142	5/18/11 0:00	0.00714	215
2011-05-18-0500	200	0.878	5/18/11 5:00	0.00439	216
2011-05-18-0600	518	2.889	5/18/11 6:00	0.005577	217
2011-05-18-0700	739	1.767	5/18/11 7:00	0.002391	218
2011-05-18-0800	738	-0.551	5/18/11 8:00	-0.00075	219
2011-05-18-0900	650	-1.199	5/18/11 9:00	-0.00184	220
2011-05-18-1000	637	-0.99	5/18/11 10:00	-0.00155	221
2011-05-18-1100	649	-0.708	5/18/11 11:00	-0.00109	222
2011-05-18-1200	650	-2.221	5/18/11 12:00	-0.00342	223
2011-05-18-1300	649	-2.209	5/18/11 13:00	-0.0034	224
2011-05-18-1400	630	-2.139	5/18/11 14:00	-0.0034	225
2011-05-18-1500	555	-2.499	5/18/11 15:00	-0.0045	226
2011-05-18-1600	699	-1.126	5/18/11 16:00	-0.00161	227
2011-05-18-1700	750	-0.162	5/18/11 17:00	-0.00022	228
2011-05-18-1800	813	0.429	5/18/11 18:00	0.000528	229
2011-05-18-1900	770	-0.235	5/18/11 19:00	-0.00031	230
2011-05-18-2000	825	0.067	5/18/11 20:00	8.12E-05	231
2011-05-18-2100	422	-0.992	5/18/11 21:00	-0.00235	232
2011-05-18-2200	390	2.313	5/18/11 22:00	0.005931	233
2011-05-18-2300	451	3.247	5/18/11 23:00	0.0072	234
2011-05-19-0000	250	1.409	5/19/11 0:00	0.005636	235
2011-05-19-0100	150	0.475	5/19/11 1:00	0.003167	236
2011-05-19-0500	400	3.154	5/19/11 5:00	0.007885	237
2011-05-19-0600	502	3.167	5/19/11 6:00	0.006309	238
2011-05-19-0700	526	3.594	5/19/11 7:00	0.006833	239
2011-05-19-0800	506	3.48	5/19/11 8:00	0.006877	240
2011-05-19-0900	511	2.709	5/19/11 9:00	0.005301	241
2011-05-19-1000	511	1.488	5/19/11 10:00	0.002912	242
2011-05-19-1100	499	0.975	5/19/11 11:00	0.001954	243

Average Incremental Loss Factor

Цопи	oss	Inc Loss	Date-Time	0/ I occas	
Hour 2011-05-19-1200	517	0.274	5/19/11 12:00	% Losses 0.00053	244
2011-05-19-1200	507	0.696	5/19/11 13:00	0.00033	245
2011-05-19-1400	501	2.092	5/19/11 14:00	0.001373	246
2011-05-19-1500	552	4.109	5/19/11 15:00	0.007444	247
2011-05-19-1600	552	4.168	5/19/11 16:00	0.007551	248
2011-05-19-1700	438	3.162	5/19/11 17:00	0.007331	249
2011-05-19-1800	449	3.185	5/19/11 18:00	0.007219	250
2011-05-19-1900	446	2.556	5/19/11 19:00	0.005731	251
2011-05-19-2000	446	2.903	5/19/11 20:00	0.006509	252
2011-05-19-2100	443	3.302	5/19/11 21:00	0.007454	253
2011-05-19-2200	441	3.723	5/19/11 22:00	0.008442	254
2011-05-19-2300	500	4.597	5/19/11 23:00	0.009194	255
2011-05-20-0000	250	1.654	5/20/11 0:00	0.006616	256
2011-05-20-0600	250	1.318	5/20/11 6:00	0.005272	257
2011-05-20-0700	338	1.721	5/20/11 7:00	0.005092	258
2011-05-20-0800	240	-1.929	5/20/11 8:00	-0.00804	259
2011-05-20-0900	225	-4.526	5/20/11 9:00	-0.02012	260
2011-05-20-1200	225	-4.587	5/20/11 12:00	-0.02039	261
2011-05-20-1300	224	-4.761	5/20/11 13:00	-0.02125	262
2011-05-20-1400	225	-4.748	5/20/11 14:00	-0.0211	263
2011-05-20-1500	138	-2.754	5/20/11 15:00	-0.01996	264
2011-05-20-1600	125	-2.605	5/20/11 16:00	-0.02084	265
2011-05-20-1700	200	-4.731	5/20/11 17:00	-0.02366	266
2011-05-20-1800	200	-4.698	5/20/11 18:00	-0.02349	267
2011-05-20-1900	300	-5.884	5/20/11 19:00	-0.01961	268
2011-05-20-2000	300	-2.174	5/20/11 20:00	-0.00725	269
2011-05-20-2100	303	-0.252	5/20/11 21:00	-0.00083	270
2011-05-20-2200	300	1.921	5/20/11 22:00	0.006403	271
2011-05-20-2300	200	0.973	5/20/11 23:00	0.004865	272
2011-05-21-0000	300	1.701	5/21/11 0:00	0.00567	273
2011-05-21-0900	350	0.432	5/21/11 9:00	0.001234	274
2011-05-21-1000	350	-1.046	5/21/11 10:00	-0.00299	275
2011-05-21-1100	350	-4.402	5/21/11 11:00	-0.01258	276
2011-05-21-1200	175	-2.991	5/21/11 12:00	-0.01709	277
2011-05-21-2200	149	0.261	5/21/11 22:00	0.001752	278
2011-05-21-2300	300	1.747	5/21/11 23:00	0.005823	279
2011-05-22-0000	272	1.354	5/22/11 0:00	0.004978	280
2011-05-22-0100	300	1.495	5/22/11 1:00	0.004983	281
2011-05-22-0900	200	0.681	5/22/11 9:00	0.003405	282
2011-05-22-1000	400	0.403	5/22/11 10:00	0.001008	283
2011-05-22-1100	400	-1.915	5/22/11 11:00	-0.00479	284
2011-05-22-1200	300	-6.043	5/22/11 12:00	-0.02014	285
2011-05-22-1300	197	-0.988	5/22/11 13:00	-0.00502	286
2011-05-22-1400	198	1.452	5/22/11 14:00	0.007333	287
2011-05-22-1500	197	2.093	5/22/11 15:00	0.010624	288
2011-05-22-1600	200	1.997	5/22/11 16:00	0.009985	289
2011-05-22-1700	200	1.648	5/22/11 17:00	0.00824	290
2011-05-22-1800	200	1.204	5/22/11 18:00	0.00602	291
2011-05-22-1900	200	-0.389	5/22/11 19:00	-0.00195	292
2011-05-22-2000	197	-1.688	5/22/11 20:00	-0.00857	293
2011-05-22-2100	200	-3.282	5/22/11 21:00	-0.01641	294
2011-05-22-2200	237	-1.391	5/22/11 22:00	-0.00587	295 206
2011-05-22-2300	300	2.116	5/22/11 23:00	0.007053	296 207
2011-05-23-0100 2011-05-23-0200	100	0.218	5/23/11 1:00 5/23/11 2:00	0.00218 0.006547	297 298
2011-05-23-0200	300 149	1.964 0.434	5/23/11 2:00 5/23/11 3:00	0.006547	298 299
2011-03-23-0300	149	0.4.54	3/23/11 3.00	0.002913	ムヺブ

Hour	oss	Inc Loss	Date-Time	% Losses	0.45
2011-05-23-0600	400	2.02	5/23/11 6:00	0.00505	300
2011-05-23-0700	640	2.742	5/23/11 7:00	0.004284	301
2011-05-23-0800	548	2.047	5/23/11 8:00	0.003735	302
2011-05-23-0900	401	1.961	5/23/11 9:00	0.00489	303
2011-05-23-1000	350	0.885	5/23/11 10:00	0.002529	304
2011-05-23-1100	350	-2.872	5/23/11 11:00	-0.00821	305
2011-05-23-1200	175	-3.061	5/23/11 12:00	-0.01749	306
2011-05-24-0800	366	2.39	5/24/11 8:00	0.00653	307
2011-05-24-0900	491	1.809	5/24/11 9:00	0.003684	308
2011-05-24-1000	291	-1.562	5/24/11 10:00	-0.00537	309
2011-05-24-1100	166	-2.628	5/24/11 11:00	-0.01583	310
2011-05-24-1200	166	-2.802	5/24/11 12:00	-0.01688	311
2011-05-24-1300	166	-2.553	5/24/11 13:00	-0.01538	312
2011-05-24-1400	204	-0.686	5/24/11 14:00	-0.00336	313
2011-05-24-1500	178	-0.246	5/24/11 15:00	-0.00138	314
2011-05-24-1600	164	0.106	5/24/11 16:00	0.000646	315
2011-05-24-1700	148	0.302	5/24/11 17:00	0.002041	316
2011-05-24-1800	132	-0.119	5/24/11 18:00	-0.0009	317
2011-05-24-1900	117	-1.784	5/24/11 19:00	-0.01525	318
2011-05-24-2000	260	-3.629	5/24/11 20:00	-0.01396	319
2011-05-24-2100	325	-3.016	5/24/11 21:00	-0.00928	320
2011-05-24-2200	550	0.938	5/24/11 22:00	0.001705	321
2011-05-24-2300	100	0.887	5/24/11 23:00	0.00887	322
2011-05-25-0000	332	4.002	5/25/11 0:00	0.012054	323
2011-05-25-0100	148	1.512	5/25/11 1:00	0.010216	324
2011-05-25-0200	148	1.853	5/25/11 2:00	0.01252	325
2011-05-25-0600	325	3.612	5/25/11 6:00	0.011114	326
2011-05-25-0700	224	2.118	5/25/11 7:00	0.009455	327
2011-05-25-0800	207	2.213	5/25/11 8:00	0.010691	328
2011-05-25-0900	214	0.476	5/25/11 9:00	0.002224	329
2011-05-25-1000	230	-4.282	5/25/11 10:00	-0.01862	330
2011-05-25-1900	150	2.119	5/25/11 19:00	0.014127	331
2011-05-25-2000	233	2.553	5/25/11 20:00	0.010957	332
2011-05-25-2100	298	1.766	5/25/11 21:00	0.005926	333
2011-05-25-2200	260	-3.014	5/25/11 22:00	-0.01159	334
2011-05-25-2300	190	-0.279	5/25/11 23:00	-0.00147	335
2011-05-26-0700	178	1.782	5/26/11 7:00	0.010011	336
2011-05-26-0800	204	2.141	5/26/11 8:00	0.010495	337
2011-05-26-0900	254	2.554	5/26/11 9:00	0.010055	338
2011-05-26-1000	254	2.549	5/26/11 10:00	0.010035	339
2011-05-26-1100	442	3.298	5/26/11 11:00	0.007462	340
2011-05-26-1200	441	2.937	5/26/11 12:00	0.00666	341
2011-05-26-1300	121	1.279	5/26/11 13:00	0.01057	342
2011-05-26-1500	173	1.877	5/26/11 15:00	0.01085	343
2011-05-26-1700	254	2.895	5/26/11 17:00	0.011398	344
2011-05-26-1800	144	1.72	5/26/11 18:00	0.011944	345
2011-05-26-2200	154	0.683	5/26/11 22:00	0.004435	346
2011-05-26-2300	152	0.774	5/26/11 23:00	0.005092	347
2011-05-27-0600	250	1.565	5/27/11 6:00	0.00626	348
2011-05-27-0700	300	2.055	5/27/11 7:00	0.00685	349
2011-05-27-0800	472	3.604	5/27/11 8:00	0.007636	350
2011-05-27-0900	257	2.554	5/27/11 9:00	0.009938	351
2011-05-27-1000	143	1.319	5/27/11 10:00	0.009224	352
2011-05-27-1100	104	0.497	5/27/11 11:00	0.004779	353
2011-05-27-1200	101	0.283	5/27/11 12:00	0.002802	354
2011-05-27-1900	226	1.577	5/27/11 19:00	0.006978	355

			LGEE Hourly Increr	nental Loss	es	
TT	000	v v	TD / TE*	0/ Y		Average Incremental
Hour	OSS	Inc Loss	Date-Time	% Losses	256	0.45% Loss Factor
2011-05-27-2200	145	0.734	5/27/11 22:00		356	
2011-05-28-1000	161	0.201	5/28/11 10:00		357	
2011-05-28-1300 2011-05-28-1400	158	0.282	5/28/11 13:00		358	
	157	0.114	5/28/11 14:00		359	
2011-05-28-1500	349	1.422 1.45	5/28/11 15:00		360	
2011-05-28-1600	306	0.604	5/28/11 16:00 5/28/11 17:00		361 362	
2011-05-28-1700	157	0.604	5/28/11 17:00		363	
2011-05-28-1800	123			0.00122	364	
2011-05-28-1900 2011-05-28-2000	122 158	0.231 0.669	5/28/11 19:00 5/28/11 20:00		365	
2011-05-28-2000	107	0.009	5/28/11 20:00		366	
2011-05-28-2100	139	0.048	5/28/11 22:00		367	
2011-05-28-2200	118	0.255	5/29/11 1:00		368	
2011-05-29-0200	107	0.302	5/29/11 2:00		369	
2011-05-29-0300	107	0.302	5/29/11 3:00		370	
2011-05-29-1000	298	1.431	5/29/11 10:00		371	
2011-05-29-1100	507	4.741	5/29/11 11:00		372	
2011-05-29-1200	781	3.86	5/29/11 12:00		373	
2011-05-29-1300	557	-0.283	5/29/11 13:00	-0.00051	374	
2011-05-29-1400	462	-1.628	5/29/11 14:00	-0.00352	375	
2011-05-29-1500	316	-4.99	5/29/11 15:00	-0.01579	376	
2011-05-29-1600	264	-6.724	5/29/11 16:00	-0.02547	377	
2011-05-29-1700	264	-6.851	5/29/11 17:00		378	
2011-05-29-1800	333	-5.633	5/29/11 18:00	-0.01692	379	
2011-05-29-1900	333	-5.458	5/29/11 19:00	-0.01639	380	
2011-05-29-2000	414	-3.772	5/29/11 20:00	-0.00911	381	
2011-05-29-2100	233	-5.745	5/29/11 21:00		382	
2011-05-29-2200	558	0.111	5/29/11 22:00		383	
2011-05-29-2300	545	0.922	5/29/11 23:00		384	
2011-05-30-0000	249	-0.865	5/30/11 0:00	-0.00347	385	
2011-05-30-0800	200	0.771	5/30/11 8:00	0.003855	386	
2011-05-30-0900	275	-0.711	5/30/11 9:00	-0.00259	387	
2011-05-30-1000	200	-2.304	5/30/11 10:00	-0.01152	388	
2011-05-31-0100	250	2.399	5/31/11 1:00	0.009596	389	
2011-05-31-0200	156	1.068	5/31/11 2:00	0.006846	390	
2011-05-31-2300	129	-2.765	5/31/11 23:00	-0.02143	391	
2011-06-01-0800	374	-1.916	6/1/11 8:00		1	391 131,529 227
2011-06-01-1300	100	-0.06	6/1/11 13:00		2	avg 336 0.582 0.173%
2011-06-01-1400	100	0.118	6/1/11 14:00	0.00118	3	
2011-06-01-1500	100	-1.254	6/1/11 15:00	-0.01254	4	
2011-06-02-0000	238	1.568	6/2/11 0:00		5	
2011-06-02-0100	355	3.702	6/2/11 1:00		6	
2011-06-02-0200	263	2.077	6/2/11 2:00		7	
2011-06-02-0300	287	2.277	6/2/11 3:00		8	
2011-06-02-0400	309	2.429	6/2/11 4:00		9	
2011-06-02-0500	306	2.297	6/2/11 5:00		10	
2011-06-02-0600	290	2.251	6/2/11 6:00		11	
2011-06-02-0700	216	0.966	6/2/11 7:00		12	
2011-06-02-0800 2011-06-02-0900	252 262	0.492	6/2/11 8:00		13 14	
2011-06-02-0900	262	1.858 2.34	6/2/11 9:00 6/2/11 10:00		15	
2011-06-02-1000	263	-0.673	6/2/11 11:00		16	
2011-06-02-1100	319	-6.504	6/2/11 12:00		17	
2011-06-02-1200	190	-3.694	6/2/11 13:00		18	
2011-06-02-1300	250	-6.874	6/2/11 22:00	-0.0275	19	
2011-06-02-2300	250	2.802	6/2/11 23:00		20	
2011 00 02-2000	200	2.002	01211120,00	0.011400	20	

Average Incremental Loss Factor

			EGENERALLY MICHEL		CB
Hour	oss	Inc Loss	Date-Time	% Losses	
2011-06-03-0000	236	2.038	6/3/11 0:00	0.008636	21
2011-06-03-0600	287	2.193	6/3/11 6:00	0.007641	22
2011-06-03-0700	390	3.062	6/3/11 7:00	0.007851	23
2011-06-03-0800	447	3.509	6/3/11 8:00	0.00785	24
2011-06-03-0900	344	0.312	6/3/11 9:00	0.000907	25
2011-06-03-1000	374	-2.974	6/3/11 10:00	-0.00795	26
2011-06-03-1100	150	-4.479	6/3/11 11:00	-0.02986	27
2011-06-03-1800	134	1.944	6/3/11 18:00	0.014507	28
2011-06-03-2200	200	-5.632	6/3/11 22:00	-0.02816	29
2011-06-03-2300	349	-3.545	6/3/11 23:00	-0.01016	30
2011-06-04-0000	343	5.894	6/4/11 0:00	0.017184	31
2011-06-04-0100	142	0.982	6/4/11 1:00	0.006915	32
2011-06-04-0700	334	2.909	6/4/11 7:00	0.00871	33
2011-06-04-0800	377	3.521	6/4/11 8:00	0.00934	34
2011-06-04-0900	387	0.331	6/4/11 9:00	0.000855	35
2011-06-04-1000	389	-5.188	6/4/11 10:00	-0.01334	36
2011-06-04-1100	149	-4.315	6/4/11 11:00	-0.02896	37
2011-06-04-1300	198	1.733	6/4/11 13:00	0.008753	38
2011-06-04-1400	100	0.552	6/4/11 14:00	0.00552	39
2011-06-04-1700	118	0.883	6/4/11 17:00	0.007483	40
2011-06-04-1800	102	0.662	6/4/11 18:00	0.00649	41
2011-06-04-1900	102	1.402	6/4/11 19:00	0.013745	42
2011-06-05-0000	134	-1.484	6/5/11 0:00	-0.01107	43
2011-06-05-1000	295	-4.698	6/5/11 10:00	-0.01593	44
2011-06-05-1100	499	-7.361	6/5/11 11:00	-0.01475	45
2011-06-05-1200	449	-8.098	6/5/11 12:00	-0.01804	46
2011-06-05-1300	298	-10.104	6/5/11 13:00	-0.03391	47
2011-06-05-1400	395	-8.379	6/5/11 14:00	-0.02121	48
2011-06-05-1500	399	-8.187	6/5/11 15:00	-0.02052	49
2011-06-05-1600	500	-6.609	6/5/11 16:00	-0.01322	50
2011-06-05-1700	474	-8.154	6/5/11 17:00	-0.0172	51
2011-06-05-1800	473	-7.786	6/5/11 18:00	-0.01646	52
2011-06-05-1900	658	-5.089	6/5/11 19:00	-0.00773	53
2011-06-05-2000	758	-3.551	6/5/11 20:00	-0.00468	54
2011-06-05-2100	908	-1.201	6/5/11 21:00	-0.00132	55
2011-06-05-2200	607	0.779	6/5/11 22:00	0.001283	56
2011-06-05-2300	479	5.091	6/5/11 23:00	0.010628	57
2011-06-06-0600	249	1.526	6/6/11 6:00	0.006129	58
2011-06-06-0700	238	1.256	6/6/11 7:00	0.005277	59
2011-06-06-0800	249	0.988	6/6/11 8:00	0.003968	60
2011-06-06-0900	300	2.289	6/6/11 9:00	0.00763	61
2011-06-06-1000	304	-5.216	6/6/11 10:00	-0.01716	62
2011-06-06-1100	199	-6.332	6/6/11 11:00	-0.03182	63
2011-06-06-1300	100	1.899	6/6/11 13:00	0.01899	64
2011-06-06-1400	200	3.811	6/6/11 14:00	0.019055	65
2011-06-06-1500	344	4.603	6/6/11 15:00	0.013381	66
2011-06-06-1600	350	4.03	6/6/11 16:00	0.011514	67
2011-06-06-1700	355	3.847	6/6/11 17:00	0.010837	68
2011-06-06-1800	482	5.379	6/6/11 18:00	0.01116	69
2011-06-06-1900	532	5.607	6/6/11 19:00	0.010539	70
2011-06-06-2000	603	5.179	6/6/11 20:00	0.008589	71
2011-06-06-2100	500	2.463	6/6/11 21:00	0.004926	72
2011-06-06-2200	420	-4.429	6/6/11 22:00	-0.01055	73
2011-06-06-2300	156	-3.971	6/6/11 23:00	-0.02546	74
2011-06-07-0600	250	0.824	6/7/11 6:00	0.003296	75
2011-06-07-0700	265	1.363	6/7/11 7:00	0.005143	76

Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-06-07-0800	254	-3.548	6/7/11 8:00	-0.01397	77
2011-06-08-1300	100	-0.057	6/8/11 13:00	-0.00057	78
2011-06-08-1400	100	-0.208	6/8/11 14:00	-0.00208	79
2011-06-08-1500	100	-1.055	6/8/11 15:00	-0.01055	80
2011-06-08-1600	100	-1.677	6/8/11 16:00	-0.01677	81
2011-06-08-1700	100	-1.611	6/8/11 17:00	-0.01611	82
2011-06-08-1800	100	-0.285	6/8/11 18:00	-0.00285	83
2011-06-08-1900	100	-0.006	6/8/11 19:00	-0.00006	84
2011-06-08-2000	100	-0.082	6/8/11 20:00	-0.00082	85
2011-06-08-2100	100	0.338	6/8/11 21:00	0.00338	86
2011-06-11-0900	199	-0.058	6/11/11 9:00	-0.00029	87
2011-06-11-1000	399	-0.643	6/11/11 10:00	-0.00161	88
2011-06-11-1100	399	-0.566	6/11/11 11:00	-0.00142	89
2011-06-11-1200	398	-4.993	6/11/11 12:00	-0.01255	90
2011-06-11-1300	195	-7.074	6/11/11 13:00	-0.03628	91
2011-06-11-1400	199	-7.543	6/11/11 14:00	-0.0379	92
2011-06-11-1500	149	-5.353	6/11/11 15:00	-0.03593	93
2011-06-11-2000	187	-5.537	6/11/11 20:00	-0.02961	94
2011-06-11-2100	349	-7.26	6/11/11 21:00	-0.0208	95
2011-06-11-2200	299	-1.68	6/11/11 22:00	-0.00562	96
2011-06-12-0900	197	0.679	6/12/11 9:00	0.003447	97
2011-06-12-1000	195	0.286	6/12/11 10:00	0.001467	98
2011-06-12-1100	191	0.436	6/12/11 11:00	0.002283	99
2011-06-12-1200	478	4.178	6/12/11 12:00	0.008741	100
2011-06-12-1300	484	1.084	6/12/11 13:00	0.00224	101
2011-06-12-1400	409	-3.955	6/12/11 14:00	-0.00967	102
2011-06-12-1500	249	-6.986	6/12/11 15:00	-0.02806	103
2011-06-12-1600	199	-6.372	6/12/11 16:00	-0.03202	104
2011-06-12-1700	149	-4.773	6/12/11 17:00	-0.03203	105
2011-06-12-1800	199	-6.572	6/12/11 18:00	-0.03303	106
2011-06-12-1900	199	-6.37	6/12/11 19:00	-0.03201	107
2011-06-12-2000	249	-7.236	6/12/11 20:00	-0.02906	108
2011-06-12-2100	284	-6.229	6/12/11 21:00	-0.02193	109
2011-06-12-2200	549	-1.488	6/12/11 22:00	-0.00271	110
2011-06-12-2300	491	1.132	6/12/11 23:00	0.002305	111
2011-06-13-0700	199	0.259	6/13/11 7:00	0.001302	112
2011-06-13-0800	200	0.983	6/13/11 8:00	0.004915	113
2011-06-13-0900	493	2.521	6/13/11 9:00	0.005114	114
2011-06-13-1000	499	1.547	6/13/11 10:00	0.0031	115
2011-06-13-1100	349	-1.276	6/13/11 11:00	-0.00366	116
2011-06-13-1200	299	-1.931	6/13/11 12:00	-0.00646	117
2011-06-13-1300	349	-4.632	6/13/11 13:00	-0.01327	118
2011-06-13-1400	199	-5.754	6/13/11 14:00	-0.02891	119
2011-06-13-1500	152	-4.197	6/13/11 15:00	-0.02761	120
2011-06-13-1600	152	-4.647	6/13/11 16:00	-0.03057	121
2011-06-13-1700	149	-5.26	6/13/11 17:00	-0.0353	122
2011-06-13-1800	148	-5.218	6/13/11 18:00	-0.03526	123
2011-06-13-1900	199	-7.091	6/13/11 19:00	-0.03563	124
2011-06-13-2000	349	-4.836	6/13/11 20:00	-0.01386	125
2011-06-13-2100	349	1.857	6/13/11 21:00	0.005321	126
2011-06-13-2200	349	2.726	6/13/11 22:00	0.007811	127
2011-06-13-2300	497	4.197	6/13/11 23:00	0.008445	128
2011-06-14-0900	380	3.621	6/14/11 9:00	0.009529	129
2011-06-14-1000	231	1.588	6/14/11 10:00	0.006874	130
2011-06-14-1100	439	4.93	6/14/11 11:00	0.01123	131
2011-06-14-1200	473	5.346	6/14/11 12:00	0.011302	132

Average Incremental

							Average Incremen
Hour	oss	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor
2011-06-14-1300	477	5.793	6/14/11 13:00	0.012145	133		
2011-06-14-1400	481	5.713	6/14/11 14:00	0.011877	134		
2011-06-14-1500	481	5.783	6/14/11 15:00		135		
2011-06-14-1600	481	5.821	6/14/11 16:00		136		
2011-06-14-1700	481	5.862	6/14/11 17:00	0.012187	137		
2011-06-14-1800	476	5.666	6/14/11 18:00	0.011903	138		
2011-06-14-1900	481	5.686	6/14/11 19:00	0.011821	139		
2011-06-14-2000	584	7.837	6/14/11 20:00	0.01342	140		
2011-06-14-2100	602	7.976	6/14/11 21:00		141		
2011-06-14-2200	482	5.106	6/14/11 22:00	0.010593	142		
2011-06-15-0700	174	0.434	6/15/11 7:00	0.002494	143		
2011-06-15-0800	399	3.567	6/15/11 8:00	0.00894	144		
2011-06-15-0900	728	9.637	6/15/11 9:00	0.013238	145		
2011-06-15-1000	873	14.361	6/15/11 10:00	0.01645	146		
2011-06-15-1100	949	17.771	6/15/11 11:00	0.018726	147		
2011-06-15-1200	947	19.671	6/15/11 12:00	0.020772	148		
2011-06-15-1300	1001	19.799	6/15/11 13:00	0.019779	149		
2011-06-15-1400	1011	20.814	6/15/11 14:00	0.020588	150		
2011-06-15-1500	866	16.325	6/15/11 15:00	0.018851	151		
2011-06-15-1600	780	14.461	6/15/11 16:00	0.01854	152		
2011-06-15-1700	508	8.507	6/15/11 17:00	0.016746	153		
2011-06-15-1800	479	7.079	6/15/11 18:00	0.014779	154		
2011-06-15-1900	339	3.134	6/15/11 19:00	0.009245	155		
2011-06-15-2000	316	2.633	6/15/11 20:00	0.008332	156		
2011-06-15-2100	280	1.636	6/15/11 21:00	0.005843	157		
2011-06-15-2200	223	1.092	6/15/11 22:00	0.004897	158		
2011-06-16-0700	230	0.982	6/16/11 7:00	0.00427	159		
2011-06-16-0800	420	3.793	6/16/11 8:00	0.009031	160		
2011-06-16-0900	316	3.116	6/16/11 9:00	0.009861	161		
2011-06-16-1000	291	2.842	6/16/11 10:00	0.009766	162		
2011-06-16-1100	293	2.499	6/16/11 11:00	0.008529	163		
2011-06-16-2000	147	-5.23	6/16/11 20:00	-0.03558	164		
2011-06-16-2100	299	-6.098	6/16/11 21:00	-0.02039	165		
2011-06-16-2200	482	-0.812	6/16/11 22:00	-0.00168	166		
2011-06-16-2300	481	5.449	6/16/11 23:00	0.011328	167		
2011-06-17-0000	482	5.214	6/17/11 0:00	0.010817	168		
2011-06-17-0100	436	3.877	6/17/11 1:00	0.008892	169		
2011-06-17-0700	199	0.553	6/17/11 7:00	0.002779	170		
2011-06-17-0800	295	2.197	6/17/11 8:00	0.007447	171		
2011-06-17-0900	391	3.614	6/17/11 9:00	0.009243	172		
2011-06-17-1000	496	3.818	6/17/11 10:00	0.007698	173		
2011-06-17-1100	299	-3.114	6/17/11 11:00	-0.01041	174		
2011-06-17-1200	209	-3.721	6/17/11 12:00	-0.0178	175		
2011-06-17-2000	274	-0.944	6/17/11 20:00	-0.00345	176		
2011-06-17-2100	274	3.148	6/17/11 21:00	0.011489	177		
2011-06-17-2200	275	2.832	6/17/11 22:00	0.010298	178		
2011-06-18-0900	435	4.466	6/18/11 9:00	0.010267	179		
2011-06-18-1000	687	8.812	6/18/11 10:00	0.012827	180		
2011-06-18-1100	444	5.449	6/18/11 11:00	0.012273	181		
2011-06-18-1200	846	12.466	6/18/11 12:00	0.014735	182		
2011-06-18-1300	839	13.182	6/18/11 13:00	0.015712	183		
2011-06-18-1400	744	10.707	6/18/11 14:00	0.014391	184		
2011-06-18-1500	497	4.787	6/18/11 15:00	0.009632	185		
2011-06-18-1600	339	3.321	6/18/11 16:00	0.009796	186		
2011-06-18-1700	651	8.951	6/18/11 17:00	0.01375	187		
2011-06-18-1800	299	3.279	6/18/11 18:00	0.010967	188		

			-2 (2 22 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Hour	OSS	Inc Loss	Date-Time	% Losses	0.45%
2011-06-18-1900	299	3.207	6/18/11 19:00	0.010726	189
2011-06-18-2000	408	4.975	6/18/11 20:00	0.012194	190
2011-06-18-2100	492	6.055	6/18/11 21:00	0.012307	191
2011-06-18-2200	493	5.236	6/18/11 22:00	0.010621	192
2011-06-19-1000	450	3.288	6/19/11 10:00	0.007307	193
2011-06-19-1100	297	1.832	6/19/11 11:00	0.006168	194
2011-06-19-1200	326	1.788	6/19/11 12:00	0.005485	195
2011-06-19-1300	412	3.211	6/19/11 13:00	0.007794	196
2011-06-19-1400	559	5.55	6/19/11 14:00	0.009928	197
2011-06-19-1500	823	10.808	6/19/11 15:00	0.013132	198
2011-06-19-1600	806	9.577	6/19/11 16:00	0.011882	199
2011-06-19-1700	725	8.642	6/19/11 17:00	0.01192	200
2011-06-19-1800	416	5.47	6/19/11 18:00	0.013149	201
2011-06-19-1900	332	3.069	6/19/11 19:00	0.009244	202
2011-06-19-2000	330	2.718	6/19/11 20:00	0.008236	203
2011-06-19-2100	330	2.446	6/19/11 21:00	0.007412	204
2011-06-19-2200	330	2.143	6/19/11 22:00	0.006494	205
2011-06-19-2300	301	1.971	6/19/11 23:00	0.006548	206
2011-06-20-0800	248	0.89	6/20/11 8:00	0.003589	207
2011-06-21-2200	149	-4.673	6/21/11 22:00	-0.03136	208
2011-06-22-0700	174	0.563	6/22/11 7:00	0.003236	209
2011-06-22-0900	286	1.735	6/22/11 9:00	0.006066	210
2011-06-22-1000	249	-2.255	6/22/11 10:00	-0.00906	211
2011-06-22-1100	149	-4.377	6/22/11 11:00	-0.02938	212
2011-06-22-1300	149	-4.653	6/22/11 13:00	-0.03123	213
2011-06-22-1900	115	-2.97	6/22/11 19:00	-0.02583	214
2011-06-22-2000	298	-8.513	6/22/11 20:00	-0.02857	215
2011-06-22-2100	327	-6.79	6/22/11 21:00	-0.02076	216
2011-06-22-2200	328	-3.37	6/22/11 22:00	-0.01027	217
2011-06-23-0700	237	0.733	6/23/11 7:00	0.003093	218
2011-06-23-0800	250	1.325	6/23/11 8:00	0.0053	219
2011-06-23-0900	249	1.511	6/23/11 9:00	0.006068	220
2011-06-23-1000	346	1.951	6/23/11 10:00	0.005639	221
2011-06-23-1100	423	-6.761	6/23/11 11:00	-0.01598	222
2011-06-23-2000	149	-4.114	6/23/11 20:00	-0.02761	223
2011-06-23-2100	210	-6.463	6/23/11 21:00	-0.03078	224
2011-06-23-2200	248	-1.773	6/23/11 22:00	-0.00715	225
2011-06-24-0800	269	-1.821	6/24/11 8:00	-0.00677	226
2011-06-24-0900	548	2.176	6/24/11 9:00	0.003971	227
2011-06-24-1000	643	5.527	6/24/11 10:00	0.008596	228
2011-06-24-1100	648	6.211	6/24/11 11:00	0.009585	229
2011-06-24-1200	799	6.956	6/24/11 12:00	0.008706	230
2011-06-24-1300	699	4.196	6/24/11 13:00	0.006003	231
2011-06-24-1400	599	1.555	6/24/11 14:00	0.002596	232
2011-06-24-1500	599	1.159	6/24/11 15:00	0.001935	233
2011-06-24-1600	624	0.009	6/24/11 16:00	1.44E-05	234
2011-06-24-1700	674	-0.738	6/24/11 17:00	-0.00109	235
2011-06-24-1800	649	2.318	6/24/11 18:00	0.003572	236
2011-06-24-1900	450	5.814	6/24/11 19:00	0.01292	237
2011-06-24-2000	449	4.943	6/24/11 20:00	0.011009	238
2011-06-24-2100	449	5.3	6/24/11 21:00	0.011804	239
2011-06-24-2200	449	5.859	6/24/11 22:00	0.013049	240
2011-06-24-2300	299	3.311	6/24/11 23:00	0.011074	241
2011-06-25-0900	199	1.692	6/25/11 9:00	0.008503	242
2011-06-25-1000	440	5.099	6/25/11 10:00	0.011589	243
2011-06-25-1100	433	5.873	6/25/11 11:00	0.013564	244

Average Incremental Loss Factor

Hour	OSS	Inc Loss	Date-Time	% Losses	
2011-06-25-1200	444	6.439	6/25/11 12:00	0.014502	245
2011-06-25-1300	446	4.394	6/25/11 13:00	0.009852	246
2011-06-25-1400	342	0.148	6/25/11 14:00	0.000433	247
2011-06-25-1700	124	-2.121	6/25/11 17:00	-0.0171	248
2011-06-25-1800	120	-2.241	6/25/11 18:00	-0.01868	249
2011-06-25-1900	210	-0.759	6/25/11 19:00	-0.00361	250
2011-06-25-2000	324	1.258	6/25/11 20:00	0.003883	251
2011-06-25-2100	299	2.276	6/25/11 21:00	0.007612	252
2011-06-25-2200	299	3.624	6/25/11 22:00	0.01212	253
2011-06-26-0900	400	2.952	6/26/11 9:00	0.00738	254
2011-06-26-1000	550	4.126	6/26/11 10:00	0.007502	255
2011-06-26-1100	623	5.087	6/26/11 11:00	0.008165	256
2011-06-26-1200	352	2.44	6/26/11 12:00	0.006932	257
2011-06-26-1300	349	2.527	6/26/11 13:00	0.007241	258
2011-06-26-1400	267	2.345	6/26/11 14:00	0.008783	259
2011-06-26-1500	245	2.123	6/26/11 15:00	0.008665	260
2011-06-26-1600	246	2.429	6/26/11 16:00	0.009874	261
2011-06-26-1700	357	3.8	6/26/11 17:00	0.010644	262
2011-06-26-1800	357	3.804	6/26/11 18:00	0.010655	263
2011-06-26-1900	406	4.074	6/26/11 19:00	0.010034	264
2011-06-26-2000	356	3.535	6/26/11 20:00	0.00993	265
2011-06-26-2100	646	7.373	6/26/11 21:00	0.011413	266
2011-06-26-2200	649	7.311	6/26/11 22:00	0.011265	267
2011-06-26-2300	446	4.867	6/26/11 23:00	0.010913	268
2011-06-27-0000	299	2.903	6/27/11 0:00	0.009709	269
2011-06-27-0100	222	1.899	6/27/11 1:00	0.008554	270
2011-06-27-0700	513	3.425	6/27/11 7:00	0.006676	271
2011-06-27-0800	720	7.063	6/27/11 8:00	0.00981	272
2011-06-27-0900	537	5.038	6/27/11 9:00	0.009382	273
2011-06-27-1000	664	7.691	6/27/11 10:00	0.011583	274
2011-06-27-1100	628	8.094	6/27/11 11:00	0.012889	275
2011-06-27-1200	532	5.122	6/27/11 12:00	0.009628	276
2011-06-27-1300	589	-3.454	6/27/11 13:00	-0.00586	277
2011-06-27-1400	403	-7.131	6/27/11 14:00	-0.01769	278
2011-06-27-1500	149	-0.932	6/27/11 15:00	-0.00626	279
2011-06-27-2200	112	-2.933	6/27/11 22:00	-0.02619	280
2011-06-27-2300	464	-0.805	6/27/11 23:00	-0.00173	281
2011-06-28-0000	192	1.108	6/28/11 0:00	0.005771	282
2011-06-28-0700	451	3.863	6/28/11 7:00	0.008565	283
2011-06-28-0800	349	2.722	6/28/11 8:00	0.007799	284
2011-06-28-0900	621	6.44	6/28/11 9:00	0.01037	285
2011-06-28-1000	149	0.162	6/28/11 10:00	0.001087	286
2011-06-28-2100	248	-5.328	6/28/11 21:00	-0.02148	287
2011-06-28-2200	374	2.911	6/28/11 22:00	0.007783	288
2011-06-28-2300	249	2.504	6/28/11 23:00	0.010056	289
2011-06-29-0000	249	2.191	6/29/11 0:00	0.008799	290
2011-06-29-0600	224	1.256	6/29/11 6:00	0.005607	291
2011-06-29-0700	476	4.456	6/29/11 7:00	0.009361	292
2011-06-29-0800	485	4.908	6/29/11 8:00	0.01012	293
2011-06-29-0900	299	2.665	6/29/11 9:00	0.008913	294
2011-06-29-1000	250	2.541	6/29/11 10:00	0.010164	295
2011-06-29-1100	299	0.088	6/29/11 11:00	0.000294	296
2011-06-29-1100	299	-9.169	6/29/11 12:00	-0.03067	297
2011-06-29-2100	150	-4.116	6/29/11 21:00	-0.02744	298
2011-06-29-2100	350	-1.582	6/29/11 22:00	-0.00452	299
2011-06-29-2300	450	6.353	6/29/11 23:00	0.014118	300
-011 00-27-2000	7.70	0.5.55	0127111 23.00	0.017110	200

			LGEE Hourly Increa	nental Losse	es	Anna and Tananan and
Hour	oss	Inc Loss	Date-Time	0/ 1 oppos		Average Incremental 0.45% Loss Factor
2011-06-30-0000	122	0.497	6/30/11 0:00	% Losses	301	U.4370 LOSS PACTOR
2011-06-30-0000	188	0.791	6/30/11 7:00		301	
2011-06-30-0700	250	1.464	6/30/11 8:00		303	
2011-06-30-0800	350	2.932	6/30/11 9:00		304	
2011-06-30-000	450	4.562	6/30/11 10:00		305	
2011-06-30-1300	250	-7.741	6/30/11 13:00	-0.03096	306	
2011-06-30-1400	250	-7.623	6/30/11 14:00		307	
2011-06-30-2100	250	-7.49	6/30/11 21:00		308	
2011-06-30-2200	324	-5.712	6/30/11 22:00	-0.01763	309	
2011-06-30-2300	352	3.015	6/30/11 23:00		310	
2011-07-01-0100	114	0.098	7/1/11 1:00	0.00086	1	310 112,504 381
2011-07-01-0200	214	1.128	7/1/11 2:00		2	avg 363 1.230 0.339%
2011-07-02-1100	156	1.653	7/2/11 11:00		3	
2011-07-02-1200	400	6.095	7/2/11 12:00		4	
2011-07-02-1300	415	5.666	7/2/11 13:00	0.013653	5	
2011-07-02-1400	362	4.581	7/2/11 14:00		6	
2011-07-02-1500	381	3.283	7/2/11 15:00	0.008617	7	
2011-07-02-1600	308	-2,392	7/2/11 16:00	-0.00777	8	
2011-07-02-1700	247	-3.34	7/2/11 17:00	-0.01352	9	
2011-07-02-1800	323	-2,262	7/2/11 18:00	-0.007	10	
2011-07-02-1900	398	-1.228	7/2/11 19:00	-0.00309	11	
2011-07-02-2000	408	-1.703	7/2/11 20:00	-0.00417	12	
2011-07-02-2100	410	5.542	7/2/11 21:00	0.013517	13	
2011-07-02-2200	349	3.747	7/2/11 22:00	0.010736	14	
2011-07-02-2300	352	3.859	7/2/11 23:00	0.010963	15	
2011-07-03-0000	409	4.455	7/3/11 0:00	0.010892	16	
2011-07-03-0100	266	2.167	7/3/11 1:00	0.008147	17	
2011-07-03-0900	400	3.62	7/3/11 9:00	0.00905	18	
2011-07-03-1000	350	3.396	7/3/11 10:00		19	
2011-07-03-1100	599	-0.535	7/3/11 11:00		20	
2011-07-03-1200	348	-8.77	7/3/11 12:00	-0.0252	21	
2011-07-03-1900	199	-5.935	7/3/11 19:00		22	
2011-07-03-2000	260	-8.813	7/3/11 20:00	-0.0339	23	
2011-07-03-2100	266	-2.063	7/3/11 21:00	-0.00776	24	
2011-07-03-2200	266	1.745	7/3/11 22:00	0.00656	25	
2011-07-03-2300 2011-07-04-0000	267	1.684	7/3/11 23:00		26	
2011-07-04-0000	267 310	1.409 1.557	7/4/11 0:00 7/4/11 1:00		27 28	
2011-07-04-0100	310	1.907	7/4/11 11:00		20 29	
2011-07-04-1100	311	1.831	7/4/11 11:00		30	
2011-07-04-1200	394	2.923	7/4/11 13:00		31	
2011-07-04-1300	579	4.857	7/4/11 14:00		32	
2011-07-04-1500	311	2.233	7/4/11 15:00	0.00718	33	
2011-07-04-1600	511	4.055	7/4/11 16:00		34	
2011-07-04-1700	511	4.072	7/4/11 17:00		35	
2011-07-04-1800	511	4.219	7/4/11 18:00		36	
2011-07-04-1900	711	2.331	7/4/11 19:00	0.003278	37	
2011-07-04-2000	710	-3.51	7/4/11 20:00		38	
2011-07-04-2100	411	1.599	7/4/11 21:00	0.003891	39	
2011-07-05-0800	211	0.709	7/5/11 8:00	0.00336	40	
2011-07-05-0900	225	1.089	7/5/11 9:00	0.00484	41	
2011-07-05-1000	449	0.742	7/5/11 10:00	0.001653	42	
2011-07-05-1100	286	-5.692	7/5/11 11:00	-0.0199	43	
2011-07-05-1300	306	-2.924	7/5/11 13:00	-0.00956	44	
2011-07-05-1400	311	-1.753	7/5/11 14:00	-0.00564	45	
2011-07-05-1500	386	-0.521	7/5/11 15:00	-0.00135	46	

Average Incremental

Loss Factor

J			EGED Hourry merci	nentai 2000	ics
Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-07-05-1600	307	0.166	7/5/11 16:00	0.000541	47
2011-07-05-1700	289	-0.432	7/5/11 17:00	-0.00149	48
2011-07-05-1800	331	-0.744	7/5/11 18:00	-0.00225	49
2011-07-05-1900	410	-3.942	7/5/11 19:00	-0.00961	50
2011-07-05-2000	432	-6.645	7/5/11 20:00	-0.01538	51
2011-07-05-2100	536	-5.7	7/5/11 21:00	-0.01063	52
2011-07-05-2200	533	-4.595	7/5/11 22:00	-0.00862	53
2011-07-05-2300	600	4.734	7/5/11 23:00	0.00789	54
2011-07-06-0000	600	7.004	7/6/11 0:00	0.011673	55
2011-07-06-0100	361	3.001	7/6/11 1:00	0.008313	56
2011-07-06-0200	300	2.025	7/6/11 2:00	0.00675	57
2011-07-06-0300	300	1.912	7/6/11 3:00	0.006373	58
2011-07-06-0600	500	4.118	7/6/11 6:00	0.008236	59
2011-07-06-0700	313	1.735	7/6/11 7:00	0.005543	60
2011-07-06-0800	211	0.74	7/6/11 8:00	0.003507	61
2011-07-06-0900	309	1.943	7/6/11 9:00	0.006288	62
2011-07-06-1000	289	2.285	7/6/11 10:00	0.007907	63
2011-07-06-1100	311	-3.748	7/6/11 11:00	-0.01205	64
2011-07-06-1200	411	-3.409	7/6/11 12:00	-0.00829	65
2011-07-06-1300	361	-0.815	7/6/11 13:00	-0.00226	66
2011-07-06-1400	411	-0.148	7/6/11 14:00	-0.00036	67
2011-07-06-1500	510	2.394	7/6/11 15:00	0.004694	68
2011-07-06-1600	458	1.43	7/6/11 16:00	0.003122	69
2011-07-06-1700	523	0.365	7/6/11 17:00	0.000698	70
2011-07-06-1800	586	0.328	7/6/11 18:00	0.00056	71
2011-07-06-1900	586	-1.953	7/6/11 19:00	-0.00333	72
2011-07-06-2000	581	-8.845	7/6/11 20:00	-0.01522	73
2011-07-06-2100	378	-8.467	7/6/11 21:00	-0.0224	74
2011-07-06-2200	298	-0.904	7/6/11 22:00	-0.00303	75
2011-07-06-2300	547	5.061	7/6/11 23:00	0.009252	76
2011-07-07-0000	503	4.832	7/7/11 0:00	0.009606	77
2011-07-07-0600	300	1.613	7/7/11 6:00	0.005377	78
2011-07-07-0800	411	3.132	7/7/11 8:00	0.00762	79
2011-07-07-0900	411	3.443	7/7/11 9:00	0.008377	80
2011-07-07-1000	564	-4.05	7/7/11 10:00	-0.00718	81
2011-07-07-1100	128	-3.086	7/7/11 11:00	-0.02411	82
2011-07-07-1200	150	-0.096	7/7/11 12:00	-0.00064	83
2011-07-07-1400	200	2.061	7/7/11 14:00	0.010305	84
2011-07-07-1500	200	1.523	7/7/11 15:00	0.007615	85
2011-07-07-1600	200	1.372	7/7/11 16:00	0.00686	86
2011-07-07-1700	199	1.567	7/7/11 17:00	0.007874	87
2011-07-07-2000	163	-4.841	7/7/11 20:00	-0.0297	88
2011-07-08-0600	211	0.736	7/8/11 6:00	0.003488	89
2011-07-08-0700	261	0.956	7/8/11 7:00	0.003663	90
2011-07-08-0800	211	0.456	7/8/11 8:00	0.002161	91
2011-07-08-0900	481	3.988	7/8/11 9:00	0.008291	92
2011-07-08-1000	642	5.967	7/8/11 10:00	0.009294	93
2011-07-08-1100	608	5.513	7/8/11 11:00	0.009067	94
2011-07-08-1200	739	7.24	7/8/11 12:00	0.009797	95
2011-07-08-1300	667	5.63	7/8/11 13:00	0.008441	96
2011-07-08-1400	671	5.853	7/8/11 14:00	0.008723	97
2011-07-08-1500	838	1.505	7/8/11 15:00	0.001796	98
2011-07-08-1600	588	0.27	7/8/11 16:00	0.000459	99
2011-07-08-1700	686	2.57	7/8/11 17:00	0.003746	100
2011-07-08-1800	774	3.245	7/8/11 18:00	0.004193	101
2011-07-08-1900	803	4.14	7/8/11 19:00	0.005156	102

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Hour	OSS	Inc Loss	Date-Time	% Losses	0
2011-07-08-2000	756	5.643	7/8/11 20:00	0.007464	103
2011-07-08-2100	774	7.362	7/8/11 21:00	0.009512	104
2011-07-08-2200	574	4.619	7/8/11 22:00	0.008047	105
2011-07-08-2300	569	4.173	7/8/11 23:00	0.007334	106
2011-07-09-0000	211	0.374	7/9/11 0:00	0.001773	107
2011-07-09-0200	210	0.751	7/9/11 2:00	0.003576	108
2011-07-09-0800	113	-0.325	7/9/11 8:00	-0.00288	109
2011-07-09-0900	650	4.572	7/9/11 9:00	0.007034	110
2011-07-09-1000	1035	7.827	7/9/11 10:00	0.007562	111
2011-07-09-1100	1148	7.62	7/9/11 11:00	0.006638	112
2011-07-09-1200	961	4.198	7/9/11 12:00	0.004368	113
2011-07-09-1300	811	1.775	7/9/11 13:00	0.002189	114
2011-07-09-1400	698	-1.151	7/9/11 14:00	-0.00165	115
2011-07-09-1500	560	-3.093	7/9/11 15:00	-0.00552	116
2011-07-09-1600	460	-4.892	7/9/11 16:00	-0.01063	117
2011-07-09-1700	411	-6.017	7/9/11 17:00	-0.01464	118
2011-07-09-1800	411	-4.921	7/9/11 18:00	-0.01197	119
2011-07-09-1900	384	-4.96	7/9/11 19:00	-0.01292	120
2011-07-09-2000	586	-2.096	7/9/11 20:00	-0.00358	121
2011-07-09-2100	761	2.118	7/9/11 21:00	0.002783	122
2011-07-09-2200	560	4.985	7/9/11 22:00	0.008902	123
2011-07-09-2300	311	2.907	7/9/11 23:00	0.009347	124
2011-07-10-0000	211	1.079	7/10/11 0:00	0.005114	125
2011-07-10-0100	211	0.925	7/10/11 1:00	0.004384	126
2011-07-10-0800	560	3.02	7/10/11 8:00	0.005393	127
2011-07-10-0900	981	7.959	7/10/11 9:00	0.008113	128
2011-07-10-1000	662	5.308	7/10/11 10:00	0.008018	129
2011-07-10-1100	1073	9.411	7/10/11 11:00	0.008771	130
2011-07-10-1200	814	1.701	7/10/11 12:00	0.00209	131
2011-07-10-1300	450	-3.198	7/10/11 13:00	-0.00711	132
2011-07-10-1400	500	-4.565	7/10/11 14:00	-0.00913	133
2011-07-10-1500	450	-3.433	7/10/11 15:00	-0.00763	134
2011-07-10-1600	400	-1.949	7/10/11 16:00	-0.00487	135
2011-07-10-1700	400	-2.307	7/10/11 17:00	-0.00577	136
2011-07-10-1800	400	-2.263	7/10/11 18:00	-0.00566	137
2011-07-10-1900	350	-2.351	7/10/11 19:00	-0.00672	138
2011-07-10-2000	350	-7.497	7/10/11 20:00	-0.02142	139
2011-07-10-2100	361	-10.136	7/10/11 21:00	-0.02808	140
2011-07-10-2200	255	-4.352	7/10/11 22:00	-0.01707	141
2011-07-11-0000	300	4,171	7/11/11 0:00	0.013903	142
2011-07-11-0100	206	2.79	7/11/11 1:00	0.013544	143
2011-07-11-0200	276	3.058	7/11/11 2:00	0.01108	144
2011-07-11-0700	385	0.813	7/11/11 7:00	0.002112	145
2011-07-11-0800	579	-2.356	7/11/11 8:00	-0.00407	146
2011-07-11-0900	284	-8.437	7/11/11 9:00	-0.02971	147
2011-07-11-1000	211	-0.571	7/11/11 10:00	-0.00271	148
2011-07-12-0100	100	-0.144	7/12/11 1:00	-0.00144	149
2011-07-12-0200	200	1.515	7/12/11 2:00	0.007575	150
2011-07-12-0300	100	-0.278	7/12/11 3:00	-0.00278	151
2011-07-12-0700	383	-3.075	7/12/11 7:00	-0.00803	152
2011-07-12-0800	350	-8.929	7/12/11 8:00	-0.02551	153
2011-07-12-2200	189	1.139	7/12/11 22:00	0.006026	154
2011-07-12-2300	401	4.206	7/12/11 23:00	0.010489	155
2011-07-13-0000	502	5.575	7/13/11 0:00	0.011106	156
2011-07-13-0100	294	2.858	7/13/11 1:00	0.009721	157
2011-07-13-0200	210	1.279	7/13/11 2:00	0.00609	158

Average Incremental Loss Factor

YY	000	Y Y	Data Titus	0/ ¥	
Hour	OSS	Inc Loss	Date-Time	% Losses	150
2011-07-13-0500	210	1.255	7/13/11 5:00	0.005976	159
2011-07-13-0600	210	1.08	7/13/11 6:00	0.005143	160
2011-07-13-0700	158	0.452	7/13/11 7:00	0.002861	161
2011-07-13-0800	574	6.789	7/13/11 8:00	0.011828	162
2011-07-13-0900	628	2.038	7/13/11 9:00	0.003245	163
2011-07-13-1000	345	-4.411	7/13/11 10:00	-0.01279	164
2011-07-13-1100	125	-4.413	7/13/11 11:00	-0.0353	165
2011-07-13-2300	250	-1.94	7/13/11 23:00	-0.00776	166
2011-07-14-0000	125	0.21	7/14/11 0:00	0.00168	167
2011-07-14-0800	211	1.002	7/14/11 8:00	0.004749	168
2011-07-14-0900	311	0.329	7/14/11 9:00	0.001058	169
2011-07-14-1000	340	-6.551	7/14/11 10:00	-0.01927	170
2011-07-14-2100	150	-4.867	7/14/11 21:00	-0.03245	171
2011-07-14-2200	350	-1.448	7/14/11 22:00	-0.00414	172
2011-07-14-2300	211	1.777	7/14/11 23:00	0.008422	173
2011-07-15-0000	211	1.601	7/15/11 0:00	0.007588	174
2011-07-15-0700	215	0.866	7/15/11 7:00	0.004028	175
2011-07-15-0800	213	0.928	7/15/11 8:00	0.004357	176
2011-07-15-0900	248	1.446	7/15/11 9:00	0.005831	177
2011-07-15-1000	259	1.646	7/15/11 10:00	0.006355	178
2011-07-15-1100	453	1.431	7/15/11 11:00	0.003159	179
2011-07-15-1200	211	-3.926	7/15/11 12:00	-0.01861	180
2011-07-15-1900	151	-4.106	7/15/11 19:00	-0.02719	181
2011-07-15-2000	311	-6.673	7/15/11 20:00	-0.02146	182
2011-07-15-2100	491	-6.423	7/15/11 21:00	-0.01308	183
2011-07-15-2200	285	-0.855	7/15/11 22:00	-0.003	184
2011-07-15-2300	225	0.244	7/15/11 23:00	0.001084	185
2011-07-17-1000	199	0.814	7/17/11 10:00	0.00409	186
2011-07-17-1100	255	0.925	7/17/11 11:00	0.003627	187
2011-07-17-1200	321	0.038	7/17/11 12:00	0.000118	188
2011-07-17-1300	179	-3.111	7/17/11 13:00	-0.01738	189
2011-07-17-1400	151	-3.352	7/17/11 14:00	-0.0222	190
2011-07-17-1500	149	-3.321	7/17/11 15:00	-0.02229	191
2011-07-17-1600	148	-2.461	7/17/11 16:00	-0.01663	192
2011-07-17-1700	150	-2.187	7/17/11 17:00	-0.01458	193
2011-07-17-1800	150	-2.009	7/17/11 18:00	-0.01339	194
2011-07-17-2000	149	-2.857	7/17/11 20:00	-0.01917	195
2011-07-17-2100	279	-5.381	7/17/11 21:00	-0.01929	196
2011-07-17-2200	303	-5.044	7/17/11 22:00	-0.01665	197
2011-07-17-2300	299	-3.256	7/17/11 23:00	-0.01089	198
2011-07-18-0800	385	-1.054	7/18/11 8:00	-0.00274	199
2011-07-18-0900	185	-4.027	7/18/11 9:00	-0.02177	200
2011-07-18-1900	100	0.892	7/18/11 19:00	0.00892	201
2011-07-19-0700	299	-1.901	7/19/11 7:00	-0.00636	202
2011-07-19-0800	299	-6.085	7/19/11 8:00	-0.02035	203
2011-07-20-0200	100	-0.187	7/20/11 2:00	-0.00187	204
2011-07-20-0300	174	0.665	7/20/11 3:00	0.003822	205
2011-07-20-0800	349	-3.743	7/20/11 8:00	-0.01072	206
2011-07-20-2200	110	1.317	7/20/11 22:00	0.011973	207
2011-07-20-2300	149	2.55	7/20/11 23:00	0.017114	208
2011-07-21-0000	149	-4.48	7/21/11 0:00	-0.03007	209
2011-07-21-0100	210	-3.308	7/21/11 1:00	-0.01575	210
2011-07-21-0200	211	-0.752	7/21/11 2:00	-0.00356	211
2011-07-21-0300	210	0.673	7/21/11 3:00	0.003205	212
2011-07-21-0400	210	1.11	7/21/11 4:00	0.005286	213
2011-07-21-0500	278	2.037	7/21/11 5:00	0.007327	214

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Hour	oss	Inc Loss	Date-Time % Losses	0.45%	Lo
2011-07-21-0600	233	1.516	7/21/11 6:00 0.006506		
2011-07-21-0700	450	-2.197	7/21/11 7:00 -0.00488		
2011-07-21-0800	199	-4.796	7/21/11 8:00 -0.0241		
2011-07-21-1600	150	-0.159	7/21/11 16:00 -0.00106		
2011-07-21-1700	231	-0.103	7/21/11 17:00 -0.00045		
2011-07-21-1800	300	-0.518	7/21/11 18:00 -0.00173		
2011-07-21-1900	219	-0.75	7/21/11 19:00 -0.00342		
2011-07-21-2000	100	-0.994	7/21/11 20:00 -0.00994		
2011-07-21-2100	175	-0.794	7/21/11 21:00 -0.00454		
2011-07-21-2200	273	0.007	7/21/11 22:00 2.56E-05		
2011-07-21-2300	263	1.586	7/21/11 23:00 0.00603		
2011-07-22-0000	109	-2.026	7/22/11 0:00 -0.01859		
2011-07-22-0100	249	0.776	7/22/11 1:00 0.003116		
2011-07-22-0200	399	5.015	7/22/11 2:00 0.012569		
2011-07-22-0300	399	4.722	7/22/11 3:00 0.011835		
2011-07-22-0400	399	4.339	7/22/11 4:00 0.010875		
2011-07-22-0500	396	5.096	7/22/11 5:00 0.012869		
2011-07-22-0600	399	6.004	7/22/11 6:00 0.015048		
2011-07-22-0700	246	2.743	7/22/11 7:00 0.01115		
2011-07-22-2100	150	1.008	7/22/11 21:00 0.00672		
2011-07-22-2200	150	1.575	7/22/11 22:00 0.0105		
2011-07-24-0200	299	-3.632	7/24/11 2:00 -0.01215		
2011-07-24-0300	298	-0.853	7/24/11 3:00 -0.00286		
2011-07-24-0900	100	0.819	7/24/11 9:00 0.00819		
2011-07-25-0700	257	1.948	7/25/11 7:00 0.00758		
2011-07-25-0800	445	1.554	7/25/11 8:00 0.003492		
2011-07-25-0900	283	-1.09	7/25/11 9:00 -0.00385		
2011-07-25-1000	145	-3.396	7/25/11 10:00 -0.02342		
2011-07-25-1100	100	1.124	7/25/11 11:00 0.01124		
2011-07-26-0000	210	0.555	7/26/11 0:00 0.002643		
2011-07-26-0100	208	2.184	7/26/11 1:00 0.0105		
2011-07-26-0500	157	1.539	7/26/11 5:00 0.009803		
2011-07-26-0600	310	3.894	7/26/11 6:00 0.012561		
2011-07-26-0700	371	2.822	7/26/11 7:00 0.007606		
2011-07-26-0800	449	-0.549	7/26/11 8:00 -0.00122 7/26/11 9:00 -0.0311		
2011-07-26-0900 2011-07-27-0700	112 124	-3.483 0.804	7/26/11 9:00 -0.0311 7/27/11 7:00 0.006484		
2011-07-27-0700	249	-3.295	7/27/11 8:00 -0.01323		
2011-07-28-0200	211	3.237	7/28/11 2:00 0.015341		
2011-07-28-0200	368	4.951	7/28/11 3:00 0.013454		
2011-07-28-0300	356	4.74	7/28/11 4:00 0.013315		
2011-07-28-0500	308	4.227	7/28/11 5:00 0.013724		
2011-07-28-0600	325	4.669	7/28/11 6:00 0.014366		
2011-07-28-0700	276	1.257	7/28/11 7:00 0.004554		
2011-07-28-0800	149	-2.5	7/28/11 8:00 -0.01678		
2011-07-29-0100	105	-0.689	7/29/11 1:00 -0.00656		
2011-07-29-0400	319	2.72	7/29/11 4:00 0.008527		
2011-07-29-0500	319	2.876	7/29/11 5:00 0.009016		
2011-07-29-0600	319	2.82	7/29/11 6:00 0.00884		
2011-07-29-0700	296	2.426	7/29/11 7:00 0.008196		
2011-07-30-0000	100	-2.756	7/30/11 0:00 -0.02756		
2011-07-30-0100	200	-1.137	7/30/11 1:00 -0.00569		
2011-07-30-0200	211	-0.591	7/30/11 2:00 -0.0028		
2011-07-30-0300	211	0.354	7/30/11 3:00 0.001678		
2011-07-30-0400	419	3.685	7/30/11 4:00 0.008795		
2011-07-30-0500	347	3.068	7/30/11 5:00 0.008841		

			LGEE Hourly Increa	nental Loss	es	A
YT	000	I I	Data Tima	0/ 1		Average Incremental 0.45% Loss Factor
Hour	OSS	Inc Loss	Date-Time	% Losses 0.009391	271	0.45% Loss Factor
2011-07-30-0600	407	3.822	7/30/11 6:00		271 272	
2011-07-30-0700 2011-07-30-0800	158	0.267	7/30/11 7:00	0.00169	273	
	211	0.877	7/30/11 8:00		274	
2011-07-30-1100	250	0.027 0.382	7/30/11 11:00	0.00269	274	
2011-07-30-1800	142 222	-1.791	7/30/11 18:00 7/30/11 19:00	-0.00209	276	
2011-07-30-1900 2011-07-30-2000	222	-3.645	7/30/11 19:00		277	
2011-07-30-2000	321	-3.043	7/30/11 20:00	-0.010.57	278	
2011-07-30-2100	321	-1.197	7/30/11 21:00		279	
2011-07-30-2200	325	2.137	7/30/11 22:00		280	
2011-07-30-2300	385	3.002	7/31/11 0:00		281	
2011-07-31-0000	328	2.015	7/31/11 1:00		282	
2011-07-31-0100	246	1.128	7/31/11 2:00		283	
2011-07-31-0200	209	0.799	7/31/11 9:00		284	
2011-07-31-1000	311	1.863	7/31/11 10:00	0.00599	285	
2011-07-31-1100	299	1.573	7/31/11 11:00		286	
2011-07-31-1200	150	-0.772	7/31/11 12:00		287	
2011-07-31-1400	223	1.235	7/31/11 14:00		288	
2011-07-31-1500	198	1.328	7/31/11 15:00		289	
2011-07-31-1600	149	1.693	7/31/11 16:00		290	
2011-07-31-1700	209	2.615	7/31/11 17:00		291	
2011-07-31-1800	199	2.397	7/31/11 18:00		292	
2011-07-31-1900	249	2.789	7/31/11 19:00		293	
2011-07-31-2000	249	0.823	7/31/11 20:00		294	
2011-07-31-2100	248	-0.125	7/31/11 21:00	-0.0005	295	
2011-07-31-2300	181	-4.019	7/31/11 23:00	-0.0222	296	
2011-08-01-0000	411	2.624	8/1/11 0:00		1	296 101,511 106
2011-08-01-0100	329	2.787	8/1/11 1:00		2	avg 343 0.359 0.105%
2011-08-01-0200	329	2.479	8/1/11 2:00		3	
2011-08-01-0300	329	2.268	8/1/11 3:00	0.006894	4	
2011-08-01-0400	329	2.15	8/1/11 4:00	0.006535	5	
2011-08-01-0500	329	2.087	8/1/11 5:00	0.006343	6	
2011-08-01-0600	329	1.945	8/1/11 6:00	0.005912	7	
2011-08-01-0700	313	1.499	8/1/11 7:00	0.004789	8	
2011-08-01-0800	249	-0.584	8/1/11 8:00	-0.00235	9	
2011-08-02-0000	124	-3.503	8/2/11 0:00	-0.02825	10	
2011-08-02-0100	325	0.056	8/2/11 1:00		11	
2011-08-02-0200	281	1.963	8/2/11 2:00	0.006986	12	
2011-08-02-0300	281	1.629	8/2/11 3:00		13	
2011-08-02-0400	281	1.746	8/2/11 4:00		14	
2011-08-02-0500	279	1.762	8/2/11 5:00		15	
2011-08-02-0600	322	2.411	8/2/11 6:00		16	
2011-08-02-0700	223	1.055	8/2/11 7:00		17	
2011-08-02-0800	149	-3.718	8/2/11 8:00		18	
2011-08-03-0100	200	-0.282	8/3/11 1:00		19	
2011-08-03-0200	200	-0.391	8/3/11 2:00		20	
2011-08-03-0300	200	-0.314	8/3/11 3:00		21	
2011-08-03-0400	200	-0.098	8/3/11 4:00		22	
2011-08-03-0500	200	-0.185	8/3/11 5:00		23	
2011-08-03-0600	200	-0.47	8/3/11 6:00		24 25	
2011-08-03-0700	278	0.365	8/3/11 7:00		25 26	
2011-08-03-0800 2011-08-04-0200	200	-0.813	8/3/11 8:00 8/4/11 2:00		27	
2011-08-04-0200	150 200	-4.236 -3.372	8/4/11 2:00 8/4/11 3:00		28	
2011-08-04-0300	200	-3.372	8/4/11 4:00		29	
2011-08-04-0400	399	0.166	8/4/11 5:00		30	
2011 00-04-0300	377	0.100	0/7/11 5.00	0.000710	.50	

Average Incremental e % Losses 0.45% Loss Factor

Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-08-04-0600	398	-0.257	8/4/11 6:00	-0.00065	31
2011-08-04-0700	279	-1.984	8/4/11 7:00	-0.00711	32
2011-08-04-0800	386	-2.332	8/4/11 8:00	-0.00604	33
2011-08-04-0900	151	-5.205	8/4/11 9:00	-0.03447	34
2011-08-05-0000	100	-3.216	8/5/11 0:00	-0.03216	35
2011-08-05-0100	149	0.624	8/5/11 1:00	0.004188	36
2011-08-05-0200	150	0.776	8/5/11 2:00	0.005173	37
2011-08-05-0300	150	0.829	8/5/11 3:00	0.005527	38
2011-08-05-0400	150	0.812	8/5/11 4:00	0.005413	39
2011-08-05-0500	150	0.644	8/5/11 5:00	0.004293	40
2011-08-05-0600	150	0.569	8/5/11 6:00	0.003793	41
2011-08-05-0700	230	1.73	8/5/11 7:00	0.007522	42
2011-08-05-0800	251	1.39	8/5/11 8:00	0.005538	43
2011-08-05-0900	174	-0.367	8/5/11 9:00	-0.00211	44
2011-08-05-0700	121	1.8	8/5/11 17:00	0.014876	45
2011-08-05-1700	141	1.786	8/5/11 18:00	0.012667	46
2011-08-05-1900	262	-0.163	8/5/11 19:00	-0.00062	47
2011-08-05-2000	291	-2.502	8/5/11 20:00	-0.0086	48
2011-08-05-2100	150	-2.722	8/5/11 21:00	-0.01815	49
2011-08-05-2100	286	-5.907	8/5/11 22:00	-0.02065	50
2011-08-05-2300	203	1.574	8/5/11 23:00	0.007754	51
2011-08-06-0000	159	0.688	8/6/11 0:00	0.004327	52
2011-08-06-0100	150	0.088	8/6/11 1:00	0.000973	53
2011-08-06-0200	150	0.140	8/6/11 2:00	0.000373	54
2011-08-06-0300	150	-0.011	8/6/11 3:00	-7.3E-05	55
2011-08-06-0400	147	-0.011	8/6/11 4:00	-0.00039	56
2011-08-06-0500	149	-0.084	8/6/11 5:00	-0.00059	57
2011-08-06-0600	150	-0.031	8/6/11 6:00	-0.00030	58
2011-08-06-0700	366	2.147	8/6/11 7:00	0.005866	59
2011-08-06-0800	366	2.336	8/6/11 8:00	0.005800	60
2011-08-06-0900	403	3.159	8/6/11 9:00	0.000383	61
2011-08-06-1000	411	3.315	8/6/11 10:00	0.008066	62
2011-08-06-1100	243	0.95	8/6/11 11:00	0.003909	63
2011-08-06-1200	274	-3.182	8/6/11 12:00	-0.01161	64
2011-08-06-1300	325	-8.707	8/6/11 13:00	-0.02679	65
2011-08-06-1400	376	-6.202	8/6/11 14:00	-0.01649	66
2011-08-06-1500	246	-2.527	8/6/11 15:00	-0.01027	67
2011-08-06-1600	265	-4.157	8/6/11 16:00	-0.01569	68
2011-08-06-1700	249	-3.879	8/6/11 17:00	-0.01558	69
2011-08-06-1800	248	-3.815	8/6/11 18:00	-0.01538	70
2011-08-06-1900	249	-5.107	8/6/11 19:00	-0.02051	71
2011-08-06-2000	247	-4.427	8/6/11 20:00	-0.01792	72
2011-08-06-2100	249	-1.3	8/6/11 21:00	-0.00522	73
2011-08-06-2200	249	1.041	8/6/11 22:00	0.004181	74
2011-08-06-2300	250	0.962	8/6/11 23:00	0.003848	75
2011-08-07-0000	250	1.013	8/7/11 0:00	0.004052	76
2011-08-07-0100	150	0.026	8/7/11 1:00	0.000173	77
2011-08-07-0200	150	-0.049	8/7/11 2:00	-0.00033	78
2011-08-07-0300	144	-0.113	8/7/11 3:00	-0.00078	79
2011-08-07-0400	141	-0.164	8/7/11 4:00	-0.00116	80
2011-08-07-0500	146	-0.064	8/7/11 5:00	-0.00044	81
2011-08-07-0600	150	0.035	8/7/11 6:00	0.000233	82
2011-08-07-0700	150	0.114	8/7/11 7:00	0.00076	83
2011-08-07-0800	146	0.077	8/7/11 8:00	0.000527	84
2011-08-07-0900	208	0.843	8/7/11 9:00	0.004053	85
2011-08-07-1000	217	0.974	8/7/11 10:00	0.004488	86

Average Incremental Loss Factor

TY	OCC	T T	Data Time	0/ 1	
Hour	OSS 229	Inc Loss	Date-Time	% Losses	0.7
2011-08-07-1100 2011-08-07-1200	280	0.897 1.379	8/7/11 11:00 8/7/11 12:00	0.003917 0.004925	87 88
2011-08-07-1200	458	0.456	8/7/11 13:00	0.004923	89
2011-08-07-1300	408	-9.258	8/7/11 14:00	-0.02269	90
2011-08-07-1500	267	-8.235	8/7/11 15:00	-0.03084	91
2011-08-07-1600	258	-3.794	8/7/11 16:00	-0.01471	92
2011-08-07-1700	268	-1.4	8/7/11 17:00	-0.00522	93
2011-08-07-1800	219	-0.188	8/7/11 18:00	-0.00086	94
2011-08-07-1900	271	-1.125	8/7/11 19:00	-0.00415	95
2011-08-07-2000	356	1.235	8/7/11 20:00	0.003469	96
2011-08-07-2100	316	0.987	8/7/11 21:00	0.003123	97
2011-08-07-2200	315	-2.615	8/7/11 22:00	-0.0083	98
2011-08-07-2300	316	-8.182	8/7/11 23:00	-0.02589	99
2011-08-08-0000	316	-4.975	8/8/11 0:00	-0.01574	100
2011-08-08-0100	316	-0.5	8/8/11 1:00	-0.00158	101
2011-08-08-0200	216	0.787	8/8/11 2:00	0.003644	102
2011-08-08-0300	216	0.621	8/8/11 3:00	0.002875	103
2011-08-08-0400	216	0.58	8/8/11 4:00	0.002685	104
2011-08-08-0500	214	0.736	8/8/11 5:00	0.003439	105
2011-08-08-0600	286	1.863	8/8/11 6:00	0.006514	106
2011-08-08-0700	368	0.088	8/8/11 7:00	0.000239	107
2011-08-08-0800	198	-6.091	8/8/11 8:00	-0.03076	108
2011-08-08-1500	175	0.201	8/8/11 15:00	0.001149	109
2011-08-08-1600	289	1.376	8/8/11 16:00	0.004761	110
2011-08-08-1700	399	2.87	8/8/11 17:00	0.007193	111
2011-08-08-1800	340	2.73	8/8/11 18:00	0.008029	112
2011-08-08-1900	298	2.857	8/8/11 19:00	0.009587	113
2011-08-08-2000	306	3.8	8/8/11 20:00	0.012418	114
2011-08-09-0000	100	-2.969	8/9/11 0:00	-0.02969	115
2011-08-09-0600	430	4.048	8/9/11 6:00	0.009414	116
2011-08-09-0700	219	1.623	8/9/11 7:00	0.007411	117
2011-08-09-0800 2011-08-10-0900	300 335	0.62 -0.355	8/9/11 8:00 8/10/11 9:00	0.002067 -0.00106	118 119
2011-08-10-0900	200	-0.333 -6.78	8/10/11 9:00	-0.0339	120
2011-08-10-1000	149	0.156	8/11/11 9:00	0.001047	120
2011-08-11-1000	149	0.150	8/11/11 10:00	0.001047	121
2011-08-11-1100	245	0.438	8/11/11 11:00	0.000163	123
2011-08-11-1200	100	-3.3	8/11/11 12:00	-0.033	124
2011-08-13-2100	149	-0.333	8/13/11 21:00	-0.00223	125
2011-08-14-1600	202	-4.905	8/14/11 16:00	-0.02428	126
2011-08-14-1700	126	-2.517	8/14/11 17:00	-0.01998	127
2011-08-14-2100	250	-2.204	8/14/11 21:00	-0.00882	128
2011-08-15-0700	231	-0.537	8/15/11 7:00	-0.00232	129
2011-08-15-0800	317	-3.131	8/15/11 8:00	-0.00988	130
2011-08-15-2100	250	-5.443	8/15/11 21:00	-0.02177	131
2011-08-15-2200	300	0.478	8/15/11 22:00	0.001593	132
2011-08-15-2300	159	0.537	8/15/11 23:00	0.003377	133
2011-08-16-1000	300	0.773	8/16/11 10:00	0.002577	134
2011-08-16-1100	164	-1.925	8/16/11 11:00	-0.01174	135
2011-08-16-1800	153	-3.421	8/16/11 18:00	-0.02236	136
2011-08-16-1900	219	-5.352	8/16/11 19:00	-0.02444	137
2011-08-16-2000	368	-5.044	8/16/11 20:00	-0.01371	138
2011-08-16-2100	404	-3.983	8/16/11 21:00	-0.00986	139
2011-08-16-2200	300	1.341	8/16/11 22:00	0.00447	140
2011-08-17-0800	300	1.911	8/17/11 8:00	0.00637	141
2011-08-17-0900	553	1.19	8/17/11 9:00	0.002152	142

Average	Incremental
Loss	Factor

			·			
Hour	oss	Inc Loss	Date-Time	% Losses	0.45%	Ó
2011-08-17-1000	300	-6.34	8/17/11 10:00	-0.02113	143	
2011-08-17-1900	150	0.601	8/17/11 19:00	0.004007	144	
2011-08-18-0600	233	1.113	8/18/11 6:00	0.004777	145	
2011-08-18-0700	462	3.524	8/18/11 7:00	0.007628	146	
2011-08-18-0800	484	3,585	8/18/11 8:00	0.007407	147	
2011-08-18-0900	493	4.553	8/18/11 9:00	0.009235	148	
2011-08-18-1000	482	3.733	8/18/11 10:00	0.007745	149	
2011-08-18-1100	285	-0.427	8/18/11 11:00	-0.0015	150	
2011-08-18-1200	310	-6.617	8/18/11 12:00	-0.02135	151	
2011-08-18-1300	284	-1.388	8/18/11 13:00	-0.00489	152	
2011-08-18-1400	300	1.157	8/18/11 14:00	0.003857	153	
2011-08-18-1500	250	2.395	8/18/11 15:00	0.00958	154	
2011-08-18-1600	271	2.512	8/18/11 16:00	0.009269	155	
2011-08-18-1700	275	2.129	8/18/11 17:00	0.007742	156	
2011-08-18-1800	337	1.285	8/18/11 18:00	0.003813	157	
2011-08-18-2200	125	-2.308	8/18/11 22:00	-0.01846	158	
2011-08-18-2300	150	0.319	8/18/11 23:00	0.002127	159	
2011-08-19-0500	120	0.034	8/19/11 5:00	0.000283	160	
2011-08-19-0600	357	0.832	8/19/11 6:00	0.002331	161	
2011-08-19-0700	425	-0.13	8/19/11 7:00	-0.00031	162	
2011-08-19-0800	508	0.613	8/19/11 8:00	0.001207	163	
2011-08-19-0900	300	-0.526	8/19/11 9:00	-0.00175	164	
2011-08-19-1000	125	-3.523	8/19/11 10:00	-0.02818	165	
2011-08-19-1400	221	1.213	8/19/11 14:00	0.005489	166	
2011-08-19-1500	200	1.14	8/19/11 15:00	0.0057	167	
2011-08-19-1600	250	-0.522	8/19/11 16:00	-0.00209	168	
2011-08-19-1700	200	-0.78	8/19/11 17:00	-0.0039	169	
2011-08-19-1900	150	-3.26	8/19/11 19:00	-0.02173	170	
2011-08-19-2000	300	-7.317	8/19/11 20:00	-0.02439	171	
2011-08-19-2100	148	-2.917	8/19/11 21:00	-0.01971	172	
2011-08-19-2200	150	0.004	8/19/11 22:00	2.67E-05	173	
2011-08-20-1100	375	-3.675	8/20/11 11:00	-0.0098	174	
2011-08-20-2200	100	-2.271	8/20/11 22:00	-0.02271	175	
2011-08-21-1000	175	-1.507	8/21/11 10:00	-0.00861	176	
2011-08-23-1200	103	-2.9	8/23/11 12:00	-0.02816	177	
2011-08-24-0700	150	0.832	8/24/11 7:00	0.005547	178	
2011-08-24-0800	150	0.054	8/24/11 8:00	0.00036	179	
2011-08-24-0900	400	-3.172	8/24/11 9:00	-0.00793	180	
2011-08-24-1000	310	-8.634	8/24/11 10:00	-0.02785	181	
2011-08-24-2100	250	2.579	8/24/11 21:00	0.010316	182	
2011-08-24-2200	113	-0.907	8/24/11 22:00	-0.00803	183	
2011-08-25-0600	138	-0.188	8/25/11 6:00	-0.00136	184	
2011-08-25-0700	272	1.277	8/25/11 7:00	0.004695	185	
2011-08-25-0800	150	0.113	8/25/11 8:00	0.000753	186	
2011-08-25-0900	150	-4.814	8/25/11 9:00	-0.03209	187	
2011-08-26-0800	300	0.933	8/26/11 8:00	0.00311	188	
2011-08-26-0900	334	1.082	8/26/11 9:00	0.00324	189	
2011-08-26-1000	100	-3.146	8/26/11 10:00	-0.03146	190	
2011-08-26-1300	150	1.733	8/26/11 13:00	0.011553	191	
2011-08-26-2100	100	-2.868	8/26/11 21:00	-0.02868	192	
2011-08-26-2200	100	-2.82	8/26/11 22:00	-0.0282	193	
2011-08-26-2300	105	-0.381	8/26/11 23:00	-0.00363	194	
2011-08-27-0000	170	0.527	8/27/11 0:00	0.0031	195	
2011-08-27-0900	400	1.014	8/27/11 9:00	0.002535	196	
2011-08-27-1000	550	-0.71	8/27/11 10:00	-0.00129	197	
2011-08-27-1100	334	-5.987	8/27/11 11:00	-0.01793	198	

			LGEE Hourly Increa	nental Loss	es	
YY	000	Y Y	ID 4 PP*	0/ X		Average Incremental
Hour	OSS	Inc Loss	Date-Time	% Losses	100	0.45% Loss Factor
2011-08-27-1200	150	-3.927	8/27/11 12:00	-0.02618	199	
2011-08-27-1300	100	-2.616	8/27/11 13:00	-0.02616	200	
2011-08-29-1200	100	-3.498	8/29/11 12:00	-0.03498	201 202	
2011-08-29-2100 2011-08-29-2200	150 112	-4.68 -0.499	8/29/11 21:00 8/29/11 22:00	-0.0312 -0.00446	202	
2011-08-29-2200	125	0.197	8/30/11 7:00	0.00446	203	
2011-08-30-0700	150	0.197	8/30/11 7:00	0.001376	204	
2011-08-30-0900	150	0.429	8/30/11 10:00	0.00280	203	
2011-08-30-1000	150	0.188	8/30/11 11:00		200	
2011-08-30-1100	350	-4.142	8/30/11 11:00	-0.01183	207	
2011-08-30-1200	138	-4.139	8/30/11 12:00	-0.02999	209	
2011-08-31-0700	136	0.245	8/31/11 7:00	0.001801	210	
2011-09-01-0700	238	1.096	9/1/11 7:00		1	210 51,105 -153
2011-09-02-0800	247	0.577	9/2/11 8:00	0.002336	2	avg 243 -0.727 -0.299%
2011-09-02-0900	142	-3.416	9/2/11 9:00	-0.02406	3	
2011-09-03-0900	199	0.579	9/3/11 9:00	0.00291	4	
2011-09-03-1000	397	-2.665	9/3/11 10:00	-0.00671	5	
2011-09-03-1100	100	-1.306	9/3/11 11:00	-0.01306	6	
2011-09-04-0000	199	-3.944	9/4/11 0:00	-0.01982	7	
2011-09-04-1100	193	0.798	9/4/11 11:00	0.004135	8	
2011-09-04-1200	373	2.199	9/4/11 12:00	0.005895	9	
2011-09-04-1300	330	2.089	9/4/11 13:00	0.00633	10	
2011-09-04-1400	304	0.77	9/4/11 14:00	0.002533	11	
2011-09-04-1500	298	0.064	9/4/11 15:00		12	
2011-09-04-1600	342	2.664	9/4/11 16:00		13	
2011-09-04-1700	342	2.709	9/4/11 17:00		14	
2011-09-04-1800	342	2,495	9/4/11 18:00	0.007295	15	
2011-09-04-1900	337	2.49	9/4/11 19:00		16	
2011-09-04-2000	200	1.112	9/4/11 20:00	0.00556	17	
2011-09-04-2100	200	0.569	9/4/11 21:00	0.002845	18	
2011-09-04-2200	200	-0.087	9/4/11 22:00	-0.00044	19	
2011-09-05-1000	150	0.099	9/5/11 10:00	0.00066	20	
2011-09-05-1100	200	0.662	9/5/11 11:00	0.00331	21	
2011-09-05-1200	268	1.54	9/5/11 12:00	0.005746	22	
2011-09-05-1500	148	0.124	9/5/11 15:00	0.000838	23	
2011-09-05-1600	148	0.117	9/5/11 16:00	0.000791	24	
2011-09-06-0700	200	1.347	9/6/11 7:00		25	
2011-09-06-0800	200	0.998	9/6/11 8:00	0.00499	26	
2011-09-06-1000	125	-0.692	9/6/11 10:00	-0.00554	27	
2011-09-06-1100	488	0.307	9/6/11 11:00	0.000629	28	
2011-09-06-1200	178	-2.438	9/6/11 12:00	-0.0137	29	
2011-09-06-2000	300	0.603	9/6/11 20:00	0.00201	30	
2011-09-06-2100	200	1.061	9/6/11 21:00	0.005305	31	
2011-09-07-0700	200	0.814	9/7/11 7:00	0.00407	32	
2011-09-07-0800	100	0.234	9/7/11 8:00	0.00234	33	
2011-09-07-0900	100	0.31	9/7/11 9:00	0.0031	34	
2011-09-07-1000	150	0.725	9/7/11 10:00	0.004833	35	
2011-09-07-1100	300	1.917	9/7/11 11:00	0.00639	36	
2011-09-07-1200	200	1.013	9/7/11 12:00		37	
2011-09-07-1800	200	1.96	9/7/11 18:00	0.0098	38	
2011-09-07-1900	200	1.755	9/7/11 19:00		39	
2011-09-07-2000	200	2.044	9/7/11 20:00	0.01022	40	
2011-09-08-0700	200	1.614	9/8/11 7:00	0.00807	41	
2011-09-08-0800 2011-09-08-0900	360	2.953	9/8/11 8:00		42	
	300	2.298	9/8/11 9:00	0.00766	43	
2011-09-08-1000	199	1.79	9/8/11 10:00	0.008995	44	

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			LGEE Hourly Incre	nental Losse	es		Average Incremental
Hour	oss	Inc Loss	Date-Time	% Losses	(.45%	Loss Factor
2011-09-08-1100	200	1.887	9/8/11 11:00	0.009435	45	. 10 70	2000 1 4001
2011-09-08-1200	275	2.794	9/8/11 12:00	0.01016	46		
2011-09-08-1300	500	3.016	9/8/11 13:00		47		
2011-09-08-1400	500	4.205	9/8/11 14:00	0.00841	48		
2011-09-08-1500	418	3.452	9/8/11 15:00	0.008258	49		
2011-09-08-1600	300	2.245	9/8/11 16:00		50		
2011-09-08-1700	100	1.238	9/8/11 17:00	0.01238	51		
2011-09-09-0600	200	0.831	9/9/11 6:00	0.004155	52		
2011-09-09-0700	372	1.897	9/9/11 7:00		53		
2011-09-09-0800	250	1.595	9/9/11 8:00	0.00638	54		
2011-09-09-0900	200	1.31	9/9/11 9:00	0.00655	55		
2011-09-10-0900	160	1.352	9/10/11 9:00	0.00845	56		
2011-09-11-1200	200	1.905	9/11/11 12:00	0.009525	57		
2011-09-11-1300	200	2.128	9/11/11 13:00	0.01064	58		
2011-09-11-1400	151	1.741	9/11/11 14:00	0.01153	59		
2011-09-11-1500	255	2.985	9/11/11 15:00		60		
2011-09-11-1600	400	5.272	9/11/11 16:00	0.01318	61		
2011-09-11-1700	303	3.932	9/11/11 17:00		62		
2011-09-11-1800	450	5.394	9/11/11 18:00	0.011987	63		
2011-09-11-1900	598	6.966	9/11/11 19:00	0.011649	64		
2011-09-11-2000	424	4.721	9/11/11 20:00		65		
2011-09-11-2100	517	5.243	9/11/11 21:00		66		
2011-09-11-2200	500	4.919	9/11/11 22:00		67		
2011-09-11-2300	282	2.51	9/11/11 23:00		68		
2011-09-12-0700	290	1.17	9/12/11 7:00		69		
2011-09-12-0800	290	1.271	9/12/11 8:00	0.004383	70		
2011-09-12-0900	398	2.34	9/12/11 9:00	0.005879	71		
2011-09-12-1000	398	2.937	9/12/11 10:00		72		r
2011-09-12-1100	342	2.843	9/12/11 11:00		73		
2011-09-12-1200	108	0.142	9/12/11 12:00		74		
2011-09-12-1400	100	0.066	9/12/11 14:00	0.00066	75		
2011-09-12-1500	199	0.23	9/12/11 15:00	0.001156	76		
2011-09-12-1600	100	0.783	9/12/11 16:00	0.00783	77		
2011-09-12-1700	100	0.794	9/12/11 17:00	0.00794	78		
2011-09-12-1800	150	0.102	9/12/11 18:00	0.00068	79		
2011-09-12-2100	100	-2.524	9/12/11 21:00	-0.02524	80		
2011-09-12-2200	198	0.907	9/12/11 22:00	0.004581	81		
2011-09-12-2300	152	1.177	9/12/11 23:00	0.007743	82		
2011-09-13-0700	150	0.37	9/13/11 7:00	0.002467	83		
2011-09-13-0800	200	0.642	9/13/11 8:00	0.00321	84		
2011-09-13-0900	200	0.757	9/13/11 9:00	0.003785	85		
2011-09-13-1000	300	2,359	9/13/11 10:00	0.007863	86		
2011-09-13-1100	300	-0.51	9/13/11 11:00	-0.0017	87		
2011-09-13-2200	100	0.606	9/13/11 22:00	0.00606	88		
2011-09-14-0700	150	0.579	9/14/11 7:00	0.00386	89		
2011-09-14-0800	250	1.393	9/14/11 8:00	0.005572	90		
2011-09-14-0900	200	0.716	9/14/11 9:00	0.00358	91		
2011-09-14-1000	200	-4.448	9/14/11 10:00	-0.02224	92		
2011-09-15-0700	179	1.99	9/15/11 7:00	0.011117	93		
2011-09-15-0800	150	1.618	9/15/11 8:00	0.010787	94		
2011-09-19-0700	300	2.297	9/19/11 7:00	0.007657	95		
2011-09-19-0800	400	3.077	9/19/11 8:00	0.007693	96		
2011-09-19-0900	400	2.532	9/19/11 9:00	0.00633	97		
2011-09-19-1000	402	3.014	9/19/11 10:00		98		
2011 00 10 1100	450	4 17	0/10/11 11:00	0.000267	00		

9/19/11 11:00 0.009267

9/19/11 12:00 0.009535

2011-09-19-1100

2011-09-19-1200

450

465

4.17

4.434

99

100

Average Incremental

							Average Incremental
Hour	oss	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor
2011-09-19-1300	350	3.211	9/19/11 13:00	0.009174	101		
2011-09-19-1400	400	3.98	9/19/11 14:00	0.00995	102		
2011-09-19-1600	100	0.555	9/19/11 16:00	0.00555	103		
2011-09-19-1700	303	2.3	9/19/11 17:00	0.007591	104		
2011-09-19-1800	403	3.362	9/19/11 18:00	0.008342	105		
2011-09-19-1900	229	1.603	9/19/11 19:00	0.007	106		
2011-09-19-2000	200	1.151	9/19/11 20:00	0.005755	107		
2011-09-19-2100	352	2.171	9/19/11 21:00	0.006168	108		
2011-09-19-2300	195	1.848	9/19/11 23:00	0.009477	109		
2011-09-20-0700	100	0.728	9/20/11 7:00	0.00728	110		
2011-09-20-0800	486	3.261	9/20/11 8:00	0.00671	111		
2011-09-20-0900	428	1.913	9/20/11 9:00	0.00447	112		
2011-09-20-1000	496	2.728	9/20/11 10:00	0.0055	113		
2011-09-20-1100	484	3.037	9/20/11 11:00		114		
2011-09-20-1200	445	2.748	9/20/11 12:00		115		,
2011-09-20-1300	479	3.365	9/20/11 13:00	0.007025	116		
2011-09-20-1400	676	6.363	9/20/11 14:00		117		
2011-09-20-1500	672	6.532	9/20/11 15:00	0.00972	118		
2011-09-20-1600	745	7.686	9/20/11 16:00		119		
2011-09-20-1700	828	8.782	9/20/11 17:00		120		
2011-09-20-1800	819	8.128	9/20/11 18:00		121		
2011-09-20-1900	967	9.755	9/20/11 19:00		122		
2011-09-20-2000	897	9.171	9/20/11 20:00	0.010034	123		
2011-09-20-2000	561	5.569	9/20/11 21:00	0.009927	124		
2011-09-20-2100	206	0.916	9/20/11 22:00		125		
2011-09-20-2200	206	0.952	9/20/11 23:00		126		
2011-09-20-2500	200	0.176	9/21/11 6:00	0.00088	127		
2011-09-21-0000	473	2.15	9/21/11 7:00		128		
2011-09-21-0700	498	2.225	9/21/11 8:00		129		
2011-09-21-0800	388	1.184	9/21/11 9:00		130		
2011-09-21-1000	405	1.601	9/21/11 10:00		131		
2011-09-21-1100	489	2.924	9/21/11 11:00	0.00593	132		
2011-09-21-1100	459	3.935	9/21/11 11:00		133		
2011-09-21-1200	434	4.414	9/21/11 12:00		133		
2011-09-21-1300	479	5.302	9/21/11 13:00		134		
2011-09-21-1400	479	4.238	9/21/11 14:00		135		
	379		9/21/11 15:00		130		
2011-09-21-1600		2.255		0.00595			
2011-09-21-1700	364	3.67.8	9/21/11 17:00		138		
2011-09-21-1800	287	1.538	9/21/11 18:00		139		
2011-09-21-1900	399	2.51	9/21/11 19:00		140		
2011-09-21-2000	400	0.138	9/21/11 20:00		141		
2011-09-21-2100	248	-1.292	9/21/11 21:00	-0.00521	142		
2011-09-21-2200	287	2.117	9/21/11 22:00		143		
2011-09-22-0600	349	1.393	9/22/11 6:00		144		
2011-09-22-0700	300	1.275	9/22/11 7:00	0.00425	145		
2011-09-22-0800	400	2.29	9/22/11 8:00		146		
2011-09-22-0900	405	2.854	9/22/11 9:00		147		
2011-09-22-1000	522	4.862	9/22/11 10:00		148		
2011-09-22-1100	506	5.092	9/22/11 11:00		149		
2011-09-22-1200	375	3.882	9/22/11 12:00		150		
2011-09-22-1300	396	4.576	9/22/11 13:00		151		
2011-09-22-1400	300	2.433	9/22/11 14:00	0.00811	152		
2011-09-22-1500	199	0.916	9/22/11 15:00		153		
2011-09-22-1600	213	-0.25	9/22/11 16:00	-0.00117	154		
2011-09-22-1800	200	-0.694	9/22/11 18:00	-0.00347	155		
2011-09-22-1900	350	2.24	9/22/11 19:00	0.0064	156		

Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-09-22-2000	448	4.106	9/22/11 20:00	0.009165	157
2011-09-22-2100	432	3.69	9/22/11 21:00	0.008542	158
2011-09-22-2200	400	3.177	9/22/11 22:00	0.007943	159
2011-09-22-2300	303	2.118	9/22/11 23:00	0.00699	160
2011-09-23-0000	103	-0.076	9/23/11 0:00	-0.00074	161
2011-09-23-0600	398	1.383	9/23/11 6:00	0.003475	162
2011-09-23-0700	696	5.669	9/23/11 7:00	0.008145	163
2011-09-23-0800	697	6.657	9/23/11 8:00	0.009551	164
2011-09-23-0900	469	3.386	9/23/11 9:00	0.00722	165
2011-09-23-1000	561	4.635	9/23/11 10:00	0.008262	166
2011-09-23-1100	484	5.552	9/23/11 11:00	0.011471	167
2011-09-23-1300	163	1.55	9/23/11 13:00	0.009509	168
2011-09-23-1400	150	1.509	9/23/11 14:00	0.01006	169
2011-09-23-1500	429	5.359	9/23/11 15:00	0.012492	170
2011-09-23-1600	429	4.661	9/23/11 16:00	0.010865	171
2011-09-23-1700	352	3.945	9/23/11 17:00	0.011207	172
2011-09-23-1800	348	3.76	9/23/11 18:00	0.010805	173
2011-09-23-1900	427	4.807	9/23/11 19:00	0.011258	174
2011-09-23-2000	488	5.516	9/23/11 20:00	0.011238	175
2011-09-23-2100	394	3.716	9/23/11 21:00	0.009431	176
2011-09-23-2100	398	3.416	9/23/11 22:00	0.008583	177
2011-09-23-2300	398	3.14	9/23/11 23:00	0.007889	178
2011-09-24-0000	431	3.514	9/24/11 0:00	0.007889	179
2011-09-24-0100	474	3.998	9/24/11 1:00	0.008133	180
2011-09-24-0100	472	4.13	9/24/11 2:00	0.008433	181
2011-09-24-0200	469	4.024	9/24/11 3:00	0.00873	182
2011-09-24-0300	465	3.944	9/24/11 4:00	0.008482	183
2011-09-24-0400	415	3.29	9/24/11 5:00	0.003482	184
2011-09-24-0600	398	2.696	9/24/11 6:00	0.007328	185
2011-09-24-0000	398	2.613	9/24/11 7:00	0.006565	186
2011-09-24-0700	398	2.949	9/24/11 8:00	0.000303	187
2011-09-24-0900	397	3,303	9/24/11 9:00	0.00741	188
2011-09-24-0900	518	4.55	9/24/11 10:00	0.00832	189
2011-09-24-1000	398	3.304	9/24/11 11:00	0.008704	190
2011-09-24-1100	400	3.351	9/24/11 12:00	0.008378	191
2011-09-24-1300	400	3.349	9/24/11 13:00	0.008373	192
2011-09-24-1400	400	3.316	9/24/11 14:00	0.00829	193
2011-09-24-1500	400	3.266	9/24/11 15:00		194
2011-09-24-1600	400	3.304	9/24/11 16:00		195
2011-09-24-1700	400	3.451	9/24/11 17:00	0.008628	196
2011-09-24-1800	400	3.301	9/24/11 18:00	0.008253	197
2011-09-24-1900	400	3.194	9/24/11 19:00	0.007985	198
2011-09-24-2000	400	3.182	9/24/11 20:00	0.007955	199
2011-09-24-2100	398	2.838	9/24/11 21:00	0.007131	200
2011-09-24-2200	398	2.855	9/24/11 22:00	0.007173	201
2011-09-24-2300	398	2.702	9/24/11 23:00	0.006789	202
2011-09-25-0000	424	2.632	9/25/11 0:00	0.006208	203
2011-09-25-0100	394	2.509	9/25/11 1:00	0.006368	204
2011-09-25-1000	200	1.136	9/25/11 10:00	0.00568	205
2011-09-25-1100	200	1.112	9/25/11 11:00	0.00556	206
2011-09-25-1200	329	2.58	9/25/11 12:00	0.007842	207
2011-09-25-1300	429	3.953	9/25/11 13:00	0.009214	208
2011-09-25-1400	429	4.114	9/25/11 14:00	0.00959	209
2011-09-25-1500	429	3.807	9/25/11 15:00	0.008874	210
2011-09-25-1600	429	3.882	9/25/11 16:00	0.009049	211
2011-09-25-1700	429	4.267	9/25/11 17:00	0.009946	212
		.,20,			

Average Incremental Loss Factor

House	oss	Inc Loss	Date-Time	% Losses	
Hour 2011-09-25-1800	429	4.038	9/25/11 18:00	0.009413	213
2011-09-25-1900	324	2.902	9/25/11 18:00	0.009413	213
2011-09-25-2000	348	3.099	9/25/11 19:00	0.008905	215
2011-09-25-2100	298	2.119	9/25/11 20:00	0.008903	21.5
2011-09-25-2100	398	3.623	9/25/11 21:00	0.007111	217
2011-09-25-2300	398	3.463	9/25/11 22:00	0.009103	217
2011-09-26-0000	200	1.473	9/26/11 0:00	0.007365	219
2011-09-26-0100	200	1.529	9/26/11 1:00	0.007645	220
2011-09-26-0200	397	3.747	9/26/11 2:00	0.007043	221
2011-09-26-0600	302	2.063	9/26/11 6:00	0.006831	222
2011-09-26-0700	400	3.222	9/26/11 7:00	0.008055	223
2011-09-26-0800	455	3.927	9/26/11 8:00	0.008631	224
2011-09-26-0900	458	4.565	9/26/11 9:00	0.009967	225
2011-09-26-1000	380	3.392	9/26/11 10:00	0.008926	226
2011-09-26-1100	350	3.278	9/26/11 11:00	0.009366	227
2011-09-26-1200	352	3.797	9/26/11 12:00	0.010787	228
2011-09-26-1300	298	2.715	9/26/11 13:00	0.009111	229
2011-09-26-1400	250	2.277	9/26/11 14:00	0.009108	230
2011-09-26-1500	249	2.389	9/26/11 15:00	0.009594	231
2011-09-26-1600	225	2.052	9/26/11 16:00	0.00912	232
2011-09-26-1700	249	2.253	9/26/11 17:00	0.009048	233
2011-09-26-1800	350	3.099	9/26/11 18:00	0.008854	234
2011-09-26-1900	200	1.501	9/26/11 19:00	0.007505	235
2011-09-26-2000	200	1.519	9/26/11 20:00	0.007595	236
2011-09-26-2100	200	1.535	9/26/11 21:00	0.007675	237
2011-09-26-2200	200	1.693	9/26/11 22:00	0.008465	238
2011-09-27-0600	299	2.514	9/27/11 6:00	0.008408	239
2011-09-27-0700	407	3.625	9/27/11 7:00	0.008907	240
2011-09-27-0800	680	5.992	9/27/11 8:00	0.008812	241
2011-09-27-0900	659	6.56	9/27/11 9:00	0.009954	242
2011-09-27-1000	300	2.844	9/27/11 10:00	0.00948	243
2011-09-27-1100	306	3.444	9/27/11 11:00	0.011255	244
2011-09-27-1200	456	5.521	9/27/11 12:00	0.012107	245
2011-09-27-1300	440	2.703	9/27/11 13:00	0.006143	246
2011-09-27-1500	170	0.593	9/27/11 15:00	0.003488	247
2011-09-27-1600	261	3.132	9/27/11 16:00	0.012	248
2011-09-27-1700	411	4.986	9/27/11 17:00	0.012131	249
2011-09-27-1800	385	4.815	9/27/11 18:00	0.012506	250
2011-09-27-1900	333	4.467	9/27/11 19:00	0.013414	251
2011-09-27-2000	200	2.548	9/27/11 20:00	0.01274	252
2011-09-27-2100	701	9.966	9/27/11 21:00	0.014217	253
2011-09-27-2200	300	3.425	9/27/11 22:00	0.011417	254
2011-09-27-2300	200	2.076	9/27/11 23:00	0.01038	255
2011-09-28-0600	280	2.406	9/28/11 6:00	0.008593	256
2011-09-28-0700	500	5.204	9/28/11 7:00	0.010408	257
2011-09-28-0800	682	7.337	9/28/11 8:00	0.010758	258
2011-09-28-0900	553	6.092	9/28/11 9:00	0.011016	259
2011-09-28-1000	630	7.252	9/28/11 10:00	0.011511	260
2011-09-28-1100	536	6.548	9/28/11 11:00	0.012216	261
2011-09-28-1200	510	6.5	9/28/11 12:00	0.012745	262
2011-09-28-1300	490	6.295	9/28/11 13:00	0.012847	263
2011-09-28-1400	525	6.623	9/28/11 14:00	0.012615	264
2011-09-28-1500	500 554	6.649	9/28/11 15:00 9/28/11 16:00	0.013298	265 266
2011-09-28-1600 2011-09-28-1700	554 575	7.322	9/28/11 16:00	0.013217 0.012763	266 267
2011-09-28-1700	600	7.339 7.569	9/28/11 17:00	0.012763	268
2011-07-20-1000	300	1.307	7/20/11 10:00	0.012013	200

Average Incremental

	000			01.7		0.4807	Average incrementar
Hour	oss	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor
2011-09-28-1900	600	7.43	9/28/11 19:00	0.012383	269		
2011-09-28-2000	543	6.966	9/28/11 20:00		270		
2011-09-28-2100	548	7.335	9/28/11 21:00		271		
2011-09-28-2200	563	6.369	9/28/11 22:00		272		
2011-09-28-2300	282	2.992	9/28/11 23:00	0.01061	273		
2011-09-29-0000	200	2.091	9/29/11 0:00		274		
2011-09-29-0100	169	1.666	9/29/11 1:00		275		
2011-09-29-0600	200	1.705	9/29/11 6:00		276		
2011-09-29-0700	355	3.067	9/29/11 7:00	0.008639	277		
2011-09-29-0800	580	5.616	9/29/11 8:00		278		
2011-09-29-0900	480	5.05	9/29/11 9:00	0.010521	279		
2011-09-29-1000	480	5.082	9/29/11 10:00	0.010588	280		
2011-09-29-1100	480	5.21	9/29/11 11:00	0.010854	281		
2011-09-29-1200	336	4.123	9/29/11 12:00	0.012271	282		
2011-09-29-1300	300	3.87	9/29/11 13:00	0.0129	283		
2011-09-29-1400	275	2.999	9/29/11 14:00	0.010905	284		
2011-09-29-1500	250	2.591	9/29/11 15:00	0.010364	285		
2011-09-29-1600	200	2.141	9/29/11 16:00	0.010705	286		
2011-09-29-1700	200	2.775	9/29/11 17:00	0.013875	287		
2011-09-29-1800	208	2.056	9/29/11 18:00	0.009885	288		
2011-09-29-1900	250	2.374	9/29/11 19:00		289		
2011-09-29-2000	275	2.638	9/29/11 20:00		290		
2011-09-29-2100	275	2.987	9/29/11 21:00		291		
2011-09-29-2200	282	3.461	9/29/11 22:00		292		
2011-09-30-0200	117	0.831	9/30/11 2:00		293		
2011-09-30-0600	382	3.674	9/30/11 6:00		294		
2011-09-30-0000	301	3.163	9/30/11 7:00		295		
2011-09-30-0700	365	3.663	9/30/11 8:00		296		
2011-09-30-0800	318	3.14	9/30/11 9:00		297		
2011-09-30-0900	308	3.14	9/30/11 10:00		298		
2011-09-30-1000	305	3.031	9/30/11 11:00		299		
2011-09-30-1100	308	3.451	9/30/11 11:00		300		
2011-09-30-1200	295	3.431	9/30/11 12:00		301		
2011-09-30-1300	276	3.131	9/30/11 13:00		302		
2011-09-30-1400		3.333	9/30/11 14:00		303		
	318	2.934			304		
2011-09-30-1600	307		9/30/11 16:00 9/30/11 17:00	0.009337	304		
2011-09-30-1700	277	2,374			30.5		
2011-09-30-1800	271	2.099	9/30/11 18:00 9/30/11 19:00				
2011-09-30-1900	265	1.864			307		
2011-09-30-2000	267	1.579	9/30/11 20:00		308	200	106 222
2011-10-01-0900	358	1.159	10/1/11 9:00		1		3 106,233 868
2011-10-01-1000	378	1.561	10/1/11 10:00		2	avg	345 2.818 0.817%
2011-10-01-1100	378	1.341	10/1/11 11:00		3		
2011-10-01-1200	395	1.846	10/1/11 12:00		4		
2011-10-01-1300	395	2.272	10/1/11 13:00		5		
2011-10-01-1400	395	2.298	10/1/11 14:00		6		
2011-10-01-1500	224	1,293	10/1/11 15:00		7		
2011-10-01-1600	198	0.95	10/1/11 16:00		8		
2011-10-01-1700	198	0.979	10/1/11 17:00		9		
2011-10-01-1800	396	1.97	10/1/11 18:00		10		
2011-10-01-1900	496	2.755	10/1/11 19:00		11		
2011-10-01-2000	498	3.034	10/1/11 20:00		12		
2011-10-01-2100	396	2.086	10/1/11 21:00		13		
2011-10-02-0800	298	1.062	10/2/11 8:00		14		
2011-10-02-0900	298	1.204	10/2/11 9:00	0.00404	15		
2011-10-02-1000	395	1.813	10/2/11 10:00	0.00459	16		

Average Incremental Loss Factor

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-10-02-1100	394	1.668	10/2/11 11:00	0.004234	17
2011-10-02-1100	398	1.718	10/2/11 11:00	0.004234	18
2011-10-02-1200	394	1.752	10/2/11 12:00	0.004317	19
2011-10-02-1300	398	2.079	10/2/11 13:00	0.005224	20
2011-10-02-1400	398	2.079	10/2/11 14:00	0.005224	21
2011-10-02-1500	398	2.013	10/2/11 15:00	0.005003	22
2011-10-02-1700	398	1.665	10/2/11 10:00	0.003178	23
2011-10-02-1700	427	1.931	10/2/11 17:00	0.004183	23 24
2011-10-02-1800	598	2.506	10/2/11 18:00	0.004322	24 25
2011-10-02-1900	598	2.198	10/2/11 19:00	0.004191	26
2011-10-02-2000	498	2.198	10/2/11 20:00	0.003676	20 27
2011-10-02-2100	396	2.093	10/2/11 21:00	0.004633	28
2011-10-03-0300	380	1.098	10/3/11 3:00	0.003283	28 29
2011-10-03-0300	380	1.691			
			10/3/11 4:00	0.00445	30
2011-10-03-0500	380	1.637	10/3/11 5:00	0.004308	31
2011-10-03-0600	380	1.158	10/3/11 6:00 10/3/11 7:00	0.003047	32
2011-10-03-0700	380	1.621		0.004266	33
2011-10-03-0800	333	1.946	10/3/11 8:00	0.005844	34
2011-10-03-0900	433	3.158	10/3/11 9:00	0.007293	35
2011-10-03-1000	383	3.328	10/3/11 10:00	0.008689	36
2011-10-03-1100	433	3.356	10/3/11 11:00	0.007751	37
2011-10-03-1200	384	2.879	10/3/11 12:00	0.007497	38
2011-10-03-1300	374	2.84	10/3/11 13:00	0.007594	39
2011-10-03-1400	373	3.089	10/3/11 14:00	0.008282	40
2011-10-03-1500	373	3.067	10/3/11 15:00	0.008223	41
2011-10-03-1600	373	3.004	10/3/11 16:00	0.008054	42
2011-10-03-1700	373	3.022	10/3/11 17:00	0.008102	43
2011-10-03-1800	37.3	2.919	10/3/11 18:00	0.007826	44
2011-10-03-1900	473	3.762	10/3/11 19:00	0.007953	45
2011-10-03-2000	373	2.539	10/3/11 20:00	0.006807	46
2011-10-03-2100	393	2.875	10/3/11 21:00	0.007316	47
2011-10-03-2200	373	2.673	10/3/11 22:00	0.007166	48
2011-10-03-2300	298	1.948	10/3/11 23:00	0.006537	49
2011-10-04-0500	273	1.719	10/4/11 5:00	0.006297	50
2011-10-04-0600	448	2.299	10/4/11 6:00	0.005132	51
2011-10-04-0700	578	3.91	10/4/11 7:00	0.006765	52
2011-10-04-0800	578	4.603	10/4/11 8:00	0.007964	53
2011-10-04-0900	378	2.964	10/4/11 9:00	0.007841	54
2011-10-04-1000	378	3.113	10/4/11 10:00	0.008235	55
2011-10-04-1100	378	3.25	10/4/11 11:00	0.008598	56
2011-10-04-1200	378	3.564	10/4/11 12:00	0.009429	57 58
2011-10-04-1300	466	4.595	10/4/11 13:00	0.009861	58
2011-10-04-1400	416	3.992	10/4/11 14:00	0.009596	59
2011-10-04-1500	416	3.832	10/4/11 15:00	0.009212	60
2011-10-04-1600 2011-10-04-1700	416	3.866	10/4/11 16:00	0.009293	61
	416	4.369	10/4/11 17:00	0.010502	62
2011-10-04-1800	416	3.787	10/4/11 18:00	0.009103	63
2011-10-04-1900	416	3.764	10/4/11 19:00	0.009048	64
2011-10-04-2000	383	3.578	10/4/11 20:00	0.009342	65
2011-10-04-2100	382	3.145	10/4/11 21:00	0.008233	66
2011-10-04-2200	324	2.381	10/4/11 22:00	0.007349	67
2011-10-05-0500	287	2.024	10/5/11 5:00	0.007052	68
2011-10-05-0600	384	3.032	10/5/11 6:00	0.007896	69
2011-10-05-0700	499	4.472	10/5/11 7:00	0.008962	70
2011-10-05-0800	499	4.773	10/5/11 8:00	0.009565	71
2011-10-05-0900	399	4.037	10/5/11 9:00	0.010118	72

Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-10-05-1000	399	4.21	10/5/11 10:00	0.010551	73	
2011-10-05-1100	399	4.458	10/5/11 11:00	0.011173	74	
2011-10-05-1200	487	5.363	10/5/11 12:00	0.011012	75	
2011-10-05-1300	411	4.791	10/5/11 13:00	0.011657	76	
2011-10-05-1400	450	5.104	10/5/11 14:00	0.011342	77	
2011-10-05-1500	484	5.337	10/5/11 15:00	0.011027	78	
2011-10-05-1600	484	4.965	10/5/11 16:00	0.010258	79	
2011-10-05-1700	484	5.091	10/5/11 17:00	0.010519	80	
2011-10-05-1800	484	5.222	10/5/11 18:00	0.010789	18	
2011-10-05-1900	484	5.644	10/5/11 19:00	0.011661	82	
2011-10-05-2000	408	5.017	10/5/11 20:00	0.012297	83	
2011-10-05-2100	403	4.805	10/5/11 21:00	0.011923	84	
2011-10-05-2200	311	3.187	10/5/11 22:00	0.010248	85	
2011-10-06-0500	411	4.181	10/6/11 5:00	0.010173	86	
2011-10-06-0600	411	4.091	10/6/11 6:00	0.009954	87	
2011-10-06-0700	561	5.645	10/6/11 7:00	0.010062	88	
2011-10-06-0800	745	8.61	10/6/11 8:00	0.011557	89	
2011-10-06-0900	546	6.573	10/6/11 9:00	0.012038	90	
2011-10-06-1000	576	6.8	10/6/11 10:00	0.011806	91	
2011-10-06-1100	175	1.42	10/6/11 11:00	0.008114	92	
2011-10-06-1200	359	3.977	10/6/11 12:00	0.011078	93	
2011-10-06-1300	861	9.817	10/6/11 13:00	0.011402	94	
2011-10-06-1400	833	7.987	10/6/11 14:00	0.009588	95	
2011-10-06-1500	686	5.801	10/6/11 15:00	0.008456	96	
2011-10-06-1600	686	5.865	10/6/11 16:00	0.00855	97	
2011-10-06-1700	682	5.475	10/6/11 17:00	0.008028	98	
2011-10-06-1800	680	5.334	10/6/11 18:00	0.007844	99	
2011-10-06-1900	680	6	10/6/11 19:00	0.008824	100	
2011-10-06-2000	680	7.741	10/6/11 20:00	0.011384	101	
2011-10-06-2100	680	7.906	10/6/11 21:00	0.011626	102	
2011-10-06-2200	593	6.836	10/6/11 22:00	0.011528	103	
2011-10-06-2300	411	4.221	10/6/11 23:00	0.01027	104	
2011-10-07-0400	298	2.346	10/7/11 4:00	0.007872	105	
2011-10-07-0500	411	3.605	10/7/11 5:00	0.008771	106	
2011-10-07-0600	404	3.002	10/7/11 6:00	0.007431	107	
2011-10-07-0700	481	4.001	10/7/11 7:00	0.008318	108	
2011-10-07-0800	728	7.629	10/7/11 8:00	0.010479	109	
2011-10-07-0900	630	6.433	10/7/11 9:00	0.010211	110	
2011-10-07-1000	729	7.492	10/7/11 10:00	0.010277	111	
2011-10-07-1100	611	6.482	10/7/11 11:00	0.010609	112	
2011-10-07-1200	511	5.725	10/7/11 12:00	0.011204	113	
2011-10-07-1300	411	4.63	10/7/11 13:00	0.011265	114	
2011-10-07-1400	311	3.396	10/7/11 14:00	0.01092	115	
2011-10-07-1500	236	2.334	10/7/11 15:00	0.00989	116	
2011-10-07-1600	186	1.808	10/7/11 16:00	0.00972	117	
2011-10-07-1700	149	1.303	10/7/11 17:00	0.008745	118	
2011-10-07-1800	136	0.986	10/7/11 18:00	0.00725	119	
2011-10-07-1900	348	3,595	10/7/11 19:00	0.01033	120	
2011-10-07-2000	448	5.184	10/7/11 20:00	0.011571	121	
2011-10-07-2100	348	3.723	10/7/11 21:00	0.010698	122	
2011-10-07-2200	148	1.217	10/7/11 22:00	0.008223	123	
2011-10-08-0600	448	4,399	10/8/11 6:00	0.009819	124	
2011-10-08-0700	711	7.772	10/8/11 7:00	0.010931	125	
2011-10-08-0800	549	5.974	10/8/11 8:00	0.010882	126	
2011-10-08-0900	550	5.925	10/8/11 9:00	0.010773	127	
2011-10-08-1000	550	5,753	10/8/11 10:00	0.01046	128	

Average Incremental Loss Factor

2011-10-08-1100	Hour	oss	Inc Loss	Date-Time	% Losses	
2011-10-08-1200 375 3.026 10/8/11 12:00 0.011101 130 2011-10-08-1300 275 3.026 10/8/11 13:00 0.011004 131 2011-10-08-1500 175 1.909 10/8/11 13:00 0.010909 133 2011-10-08-1500 150 1.446 10/8/11 15:00 0.00964 134 2011-10-08-1900 150 1.446 10/8/11 15:00 0.00964 134 2011-10-08-1900 200 2.181 10/8/11 19:00 0.00966 135 2011-10-08-2000 200 2.181 10/8/11 19:00 0.00964 134 2011-10-08-2000 200 1.894 10/8/11 21:00 0.00947 137 2011-10-08-2000 200 1.894 10/8/11 21:00 0.00947 137 2011-10-08-2000 200 1.789 10/8/11 21:00 0.00947 137 2011-10-08-2000 200 1.572 10/9/11 12:00 0.007527 139 2011-10-09-100 200 1.572 10/9/11 12:00 0.00766 140 2011-10-09-1400 299 2.638 10/9/11 13:00 0.008829 142 2011-10-09-1400 299 2.638 10/9/11 13:00 0.008829 142 2011-10-09-1500 300 2.788 10/9/11 15:00 0.009293 144 2011-10-09-1600 500 4.833 10/9/11 15:00 0.009293 144 2011-10-09-1600 500 4.833 10/9/11 15:00 0.009807 148 2011-10-09-1700 555 5.148 10/9/11 19:00 0.009807 148 2011-10-09-2000 750 7.42 10/9/11 20:00 0.009807 148 2011-10-09-2000 551 4.719 10/9/11 20:00 0.009807 148 2011-10-09-2000 551 4.719 10/9/11 20:00 0.009807 148 2011-10-09-2000 551 4.719 10/9/11 20:00 0.009807 148 2011-10-00-0000 551 4.451 10/10/11 5:00 0.009807 148 2011-10-10-0000 551 4.451 10/10/11 5:00 0.009807 148 2011-10-10-0000 551 4.451 10/10/11 5:00 0.009807 148 2011-10-10-0000 551 4.451 10/10/11 5:00 0.009807 148 2011-10-10-0000 551 4.451 10/10/11 5:00 0.009807 148 2011-10-10-0000 551 4.451 10/10/11 5:00 0.009807 148 2011-10-10-0000 551 4.451 10/10/11 10:00 0.009807 155 2011-10-10-10000 551 6.860 10/10/11 10:00 0.012673 160 2011-10-10-1000 551 6.860 10/10/11 10:00 0.012673 160 2011-10-10-1000 350 4.298 10/						129
2011-10-08-1300 275 3.026 10/8/11 13:00 0.011004 131 2011-10-08-1500 175 1.909 10/8/11 15:00 0.010909 133 2011-10-08-1600 150 1.446 10/8/11 16:00 0.00964 134 2011-10-08-1600 200 2.181 10/8/11 20:00 0.00966 135 2011-10-08-2000 200 2.181 10/8/11 20:00 0.00966 135 2011-10-08-2000 200 1.894 10/8/11 20:00 0.00947 137 2011-10-08-2300 150 1.129 10/8/11 20:00 0.00943 138 2011-10-08-2300 150 1.129 10/8/11 20:00 0.00945 138 2011-10-08-2300 150 1.129 10/8/11 20:00 0.00745 139 2011-10-09-1400 200 1.409 10/9/11 11:00 0.007045 140 2011-10-09-1300 273 2.263 10/9/11 13:00 0.008289 142 2011-10-09-1400 299 2.638 10/9/11 16:00 0.008283 143 2011-10-09-1600 500 4.833 10/9/11 16:00 0.009293 144 2011-10-09-1600 500 4.833 10/9/11 16:00 0.009203 144 2011-10-09-1700 550 5.148 10/9/11 19:00 0.009866 145 2011-10-09-1900 822 8.061 10/9/11 19:00 0.009807 148 2011-10-09-2000 750 7.42 10/9/11 21:00 0.009807 148 2011-10-09-2000 551 4.719 10/9/11 21:00 0.009807 148 2011-10-09-2000 551 4.719 10/9/11 21:00 0.009807 148 2011-10-09-2000 551 4.719 10/9/11 21:00 0.009807 150 2011-10-09-2000 551 4.451 10/10/11 6:00 0.009807 152 2011-10-10-0600 551 4.451 10/10/11 6:00 0.009807 154 2011-10-10-0600 551 4.451 10/10/11 6:00 0.009807 155 2011-10-10-0600 551 4.451 10/10/11 6:00 0.009807 155 2011-10-10-0600 551 4.451 10/10/11 6:00 0.009807 155 2011-10-10-0600 551 4.451 10/10/11 6:00 0.009807 155 2011-10-10-0600 551 4.451 10/10/11 6:00 0.009807 156 2011-10-10-1000 250 2.903 10/10/11 16:00 0.012673 160 2011-10-10-1000 350 4.378 10/10/11 16:00 0.012673 160 2011-10-10-1000 350 4.378 10/10/11 16:00 0.012673 160 2011-10-10-1000 350 4.298 10/10/11 16:00 0.012673 160 2011-10-10-2000 400 4.697 1						
2011-10-08-1400						
2011-10-08-1500						
2011-10-08-1600						
2011-10-08-1900						
2011-10-08-2000 2.00 2.181 10/8/11 20:00 0.010905 136 2011-10-08-2200 200 1.894 10/8/11 21:00 0.00947 137 2011-10-08-2200 200 1.789 10/8/11 22:00 0.008945 138 2011-10-08-2300 150 1.129 10/8/11 23:00 0.007527 139 2011-10-09-1100 200 1.409 10/9/11 11:00 0.007045 140 2011-10-09-1200 200 1.572 10/9/11 12:00 0.00786 141 2011-10-09-1300 273 2.263 10/9/11 13:00 0.008289 142 2011-10-09-1400 299 2.638 10/9/11 13:00 0.008823 143 2011-10-09-1600 500 4.833 10/9/11 16:00 0.009923 144 2011-10-09-1600 500 4.833 10/9/11 17:00 0.009293 144 2011-10-09-1600 570 5.148 10/9/11 17:00 0.00936 146 2011-10-09-1900 822 8.061 10/9/11 19:00 0.0098828 147 2011-10-09-1900 822 8.061 10/9/11 19:00 0.0098828 147 2011-10-09-1900 822 8.061 10/9/11 20:00 0.009883 149 2011-10-09-2000 750 7.42 10/9/11 20:00 0.009883 149 2011-10-09-2000 551 4.719 10/9/11 20:00 0.009883 149 2011-10-09-2000 551 4.719 10/9/11 20:00 0.008864 151 2011-10-09-2000 551 4.719 10/9/11 20:00 0.008864 151 2011-10-09-000 551 4.451 10/10/11 5:00 0.009878 154 2011-10-10-0500 551 4.451 10/10/11 5:00 0.008078 154 2011-10-10-0000 958 11.422 10/10/11 8:00 0.01445 156 2011-10-10-0900 950 11.555 10/10/11 8:00 0.01244 158 2011-10-10-1000 851 0.842 10/10/11 10:00 0.012361 159 2011-10-10-1000 851 0.842 10/10/11 11:00 0.012361 159 2011-10-10-1000 350 4.378 10/10/11 11:00 0.012361 159 2011-10-10-1000 350 4.378 10/10/11 11:00 0.012361 159 2011-10-10-1000 350 4.378 10/10/11 11:00 0.012361 159 2011-10-10-1000 350 4.378 10/10/11 11:00 0.012361 159 2011-10-10-1000 350 4.378 10/10/11 11:00 0.012361 164 2011-10-10-1000 350 4.298 10/10/11 11:00 0.012351 166 2011-10-10-1000 350 4.378 10/10/11 11:00 0.01235 166 2011-10-10-1000 350						
2011-10-08-2100 200 1.894 10/8/11 21:00 0.00947 137 2011-10-08-2200 200 1.789 10/8/11 22:00 0.00945 138 2011-10-09-2300 150 1.129 10/8/11 22:00 0.007527 139 2011-10-09-1100 200 1.409 10/9/11 11:00 0.007045 140 2011-10-09-1200 273 2.263 10/9/11 11:00 0.00786 141 2011-10-09-1400 299 2.638 10/9/11 11:00 0.008289 142 2011-10-09-1500 300 2.788 10/9/11 115:00 0.008289 142 2011-10-09-1500 300 2.788 10/9/11 115:00 0.009293 144 2011-10-09-1600 500 4.833 10/9/11 115:00 0.009293 144 2011-10-09-1700 550 5.148 10/9/11 115:00 0.009828 147 2011-10-09-1700 550 5.148 10/9/11 18:00 0.008828 147 2011-10-09-1900 822 8.061 10/9/11 19:00 0.009807 148 2011-10-09-2000 750 7.42 10/9/11 21:00 0.009807 148 2011-10-09-2000 750 7.42 10/9/11 21:00 0.009813 149 2011-10-09-2000 551 4.719 10/9/11 22:00 0.009217 150 2011-10-09-2300 200 0.875 10/9/11 21:00 0.009864 151 2011-10-09-2300 200 0.875 10/9/11 22:00 0.008564 151 2011-10-10-0500 551 4.451 10/10/11 6:00 0.008678 154 2011-10-10-0700 851 8.421 10/10/11 6:00 0.008678 154 2011-10-10-0800 998 11.422 10/10/11 6:00 0.008678 154 2011-10-10-0900 950 11.555 10/10/11 6:00 0.01274 158 2011-10-10-1000 851 0.842 10/10/11 10:00 0.01274 158 2011-10-10-1000 300 1.507 10/10/11 13:00 0.012878 161 2011-10-10-1000 300 3.609 10/10/11 13:00 0.012878 161 2011-10-10-1000 300 3.609 10/10/11 13:00 0.012878 161 2011-10-10-1000 450 6.983 10/10/11 13:00 0.012878 161 2011-10-10-1000 450 6.983 10/10/11 13:00 0.012878 161 2011-10-10-1000 450 6.983 10/10/11 13:00 0.012878 161 2011-10-10-1000 450 6.983 10/10/11 13:00 0.012878 161 2011-10-10-1000 450 6.983 10/10/11 13:00 0.012878 161 2011-10-10-1000 450 5.605 10/10/11 13:00 0.012876 168 2011-10-10-1000 55						
2011-10-08-2200						
2011-10-08-2300						
2011-10-09-1100 200						
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Average Incremental Loss Factor

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Hour	OSS	Inc Loss	Date-Time	% Losses	
2011-10-11-1800	625	8.434	10/11/11 18:00	0.013494	185
2011-10-11-1900	600	8.644	10/11/11 19:00	0.014407	186
2011-10-11-2000	550	7.838	10/11/11 20:00	0.014251	187
2011-10-11-2100	550	7.443	10/11/11 21:00	0.013533	188
2011-10-11-2200	399	5.046	10/11/11 22:00	0.012647	189
2011-10-11-2300	300	3.308	10/11/11 23:00	0.011027	190
2011-10-12-0000	100	0.861	10/12/11 0:00	0.00861	191
2011-10-12-0600	538	5.445	10/12/11 6:00	0.010121	192
2011-10-12-0700	765	8.903	10/12/11 7:00	0.011638	193
2011-10-12-0800	800	8.312	10/12/11 8:00	0.01039	194
2011-10-12-0900	551	2.796	10/12/11 9:00	0.005074	195
2011-10-12-1000	667	1.861	10/12/11 10:00	0.00279	196
2011-10-12-1100	601	3.308	10/12/11 11:00	0.005504	197
2011-10-12-1200	451	1.214	10/12/11 12:00	0.002692	198
2011-10-12-1300	438	1.137	10/12/11 13:00	0.002596	199
2011-10-12-1400	438	-0.129	10/12/11 14:00	-0.00029	200
2011-10-12-1500	438	-0.813	10/12/11 15:00	-0.00186	201
2011-10-12-1600	538	0.388	10/12/11 16:00	0.000721	202
2011-10-12-1700	538	-1.235	10/12/11 17:00	-0.0023	203
2011-10-12-1800	563	3.764	10/12/11 18:00	0.006686	204
2011-10-12-1900	488	-0.08	10/12/11 19:00	-0.00016	205
2011-10-12-2000	438	-3.403	10/12/11 20:00	-0.00777	206
2011-10-12-2100	588	-1.429	10/12/11 21:00	-0.00243	207
2011-10-12-2200	639	2.608	10/12/11 22:00	0.004081	208
2011-10-13-0500	300	2.247	10/13/11 5:00	0.00749	209
2011-10-13-0600	600	6.34	10/13/11 6:00	0.010567	210
2011-10-13-0700	503	5.703	10/13/11 7:00	0.011338	211
2011-10-13-0800	503	1.398	10/13/11 8:00	0.002779	212
2011-10-13-0900	503	-1.569	10/13/11 9:00	-0.00312	213
2011-10-13-1000	600	-0.031	10/13/11 10:00	-5.2E-05	214
2011-10-13-1100	549	-0.638	10/13/11 11:00	-0.00116	215
2011-10-13-1200	499	-1.137	10/13/11 12:00	-0.00228	216
2011-10-13-1300	499	0.889	10/13/11 13:00	0.001782	217
2011-10-13-1400	349	4.387	10/13/11 14:00	0.01257	218
2011-10-13-1500	402	4.964	10/13/11 15:00	0.012348	219
2011-10-13-1600	451	5.614	10/13/11 16:00	0.012448	220
2011-10-13-1700	500	6.124	10/13/11 17:00	0.012248	221
2011-10-13-1800	575	7.103	10/13/11 18:00	0.012353	222
2011-10-13-1900	500	6.611	10/13/11 19:00	0.013222	223
2011-10-13-2000	400	5.338	10/13/11 20:00	0.013345	224
2011-10-13-2100	450	5.107	10/13/11 21:00	0.011349	225
2011-10-13-2200	638	7.517	10/13/11 22:00	0.011782	226
2011-10-13-2300	300	1.666	10/13/11 23:00	0.005553	227
2011-10-14-0500	300	1.297	10/14/11 5:00	0.004323	228
2011-10-14-0600	600	5.002	10/14/11 6:00	0.008337	229
2011-10-14-0700	525	3.67	10/14/11 7:00	0.00699	230
2011-10-14-0800	550	4.599	10/14/11 8:00	0.008362	231
2011-10-14-0900	550	5.248	10/14/11 9:00	0.009542	232
2011-10-14-1000	550	4.869	10/14/11 10:00	0.008853	233
2011-10-14-1100	525	4.364	10/14/11 11:00	0.008312	234
2011-10-14-1200	475	1.769	10/14/11 12:00	0.003724	235
2011-10-14-1600	149	0.811	10/14/11 16:00	0.005443	236
2011-10-14-1700	350	2.486	10/14/11 17:00	0.007103	237
2011-10-14-1800	475	3.823	10/14/11 18:00	0.008048	238
2011-10-14-1900	600	5.272	10/14/11 19:00	0.008787	239
2011-10-14-2000	638	6.458	10/14/11 20:00	0.010122	240

Average Incremental Loss Factor

**	0.00		To a most	0/ *	
Hour	OSS	Inc Loss	Date-Time	% Losses	2.44
2011-10-14-2100	450	3.65	10/14/11 21:00	0.008111	241
2011-10-15-0800	200	1.579	10/15/11 8:00	0.007895	242
2011-10-15-0900	200	1.733	10/15/11 9:00	0.008665	243
2011-10-15-1000	159	1.715	10/15/11 10:00	0.010786	244
2011-10-15-1100	100	1.083	10/15/11 11:00	0.01083	245
2011-10-15-1200	100	0.954	10/15/11 12:00	0.00954	246
2011-10-15-1300	135	1.336	10/15/11 13:00	0.009896	247
2011-10-15-1400	185	1.811	10/15/11 14:00	0.009789	248
2011-10-15-1500	188	1.736	10/15/11 15:00	0.009234	249
2011-10-15-2000	150	1.371	10/15/11 20:00	0.00914	250
2011-10-16-1000	150	0.661	10/16/11 10:00	0.004407	251
2011-10-16-1100	400	3.145	10/16/11 11:00	0.007863	252
2011-10-16-1200	350	3.17	10/16/11 12:00	0.009057	253
2011-10-17-0500	300	2.835	10/17/11 5:00	0.00945	254
2011-10-17-0600	551	5.995	10/17/11 6:00	0.01088	255
2011-10-17-0700	551	6.39	10/17/11 7:00	0.011597	256
2011-10-17-0800	551	6.582	10/17/11 8:00	0.011946	257
2011-10-17-0900	200	1.746	10/17/11 9:00	0.00873	258
2011-10-17-1000	200	2.152	10/17/11 10:00	0.01076	259
2011-10-17-1100	100	1.335	10/17/11 11:00	0.01335	260
2011-10-17-1800	100	0.447	10/17/11 18:00	0.00447	261
2011-10-18-0500	349	3.226	10/18/11 5:00	0.009244	262
2011-10-18-0600	423	4.276	10/18/11 6:00	0.010109	263
2011-10-18-0700	100	-0.12	10/18/11 7:00	-0.0012	264
2011-10-18-0800	273	2.756	10/18/11 8:00	0.010095	265
2011-10-18-0900	400	4.453	10/18/11 9:00	0.011133	266
2011-10-18-1000	300	2.814	10/18/11 10:00	0.00938	267
2011-10-18-1100	313	3.605	10/18/11 11:00	0.011518	268
2011-10-18-1200	426	5.781	10/18/11 12:00	0.01357	269
2011-10-18-1300	434	3.849	10/18/11 13:00	0.008869	270
2011-10-18-1400	450	2.722	10/18/11 14:00	0.006049	271
2011-10-18-1500	398	1.525	10/18/11 15:00	0.003832	272
2011-10-18-1600	400	1.451	10/18/11 16:00	0.003628	273
2011-10-18-1700	450	2.191	10/18/11 17:00	0.004869	274
2011-10-18-1800	350	0.695	10/18/11 18:00	0.001986	275
2011-10-18-1900	250	-0.932	10/18/11 19:00	-0.00373	276
2011-10-18-2000	250	-0.958	10/18/11 20:00	-0.00383	277
2011-10-18-2100	400	2.73	10/18/11 21:00	0.006825	278
2011-10-18-2200	600	7.408	10/18/11 22:00	0.012347	279
2011-10-18-2300	550	6.487	10/18/11 23:00	0.011795	280
2011-10-19-0000	550	6.203	10/19/11 0:00	0.011278	281
2011-10-19-0100	300	2.948	10/19/11 1:00	0.009827	282
2011-10-19-0200	300	2.945	10/19/11 2:00	0.009817	283
2011-10-19-0300	300	3.021	10/19/11 3:00	0.01007	284
2011-10-19-0400	300	2.952	10/19/11 4:00	0.00984	285
2011-10-19-0500	300	3	10/19/11 5:00	0.00504	286
2011-10-19-0600	550	6.448	10/19/11 6:00	0.011724	287
2011-10-19-0700	551	3.486	10/19/11 7:00	0.006327	288
2011-10-19-0800	701	0.949	10/19/11 8:00	0.000327	289
2011-10-19-0800	550	-0.96	10/19/11 8:00	-0.0013.34	299
2011-10-19-0900	550	1.179	10/19/11 9:00	0.002144	290 291
2011-10-19-1000	551	1.179	10/19/11 10:00	0.002144	291
2011-10-19-1100	701			0.002082	292 293
		3.008	10/19/11 12:00		
2011-10-19-1300	701	2.953	10/19/11 13:00	0.004213	294
2011-10-19-1400	650	2.988	10/19/11 14:00	0.004597	295
2011-10-19-1500	651	2.936	10/19/11 15:00	0.00451	296

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Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-10-19-1600	650	2.928	10/19/11 16:00	0.004505	297
2011-10-19-1700	701	2.871	10/19/11 17:00	0.004096	298
2011-10-19-1800	475	-2.243	10/19/11 18:00	-0.00472	299
2011-10-19-1900	100	-2.639	10/19/11 19:00	-0.02639	300
2011-10-19-2000	298	-2.395	10/19/11 20:00	-0.00804	301
2011-10-19-2100	420	-0.31	10/19/11 21:00	-0.00074	302
2011-10-19-2200	400	5.555	10/19/11 22:00	0.013888	303
2011-10-19-2300	400	5.612	10/19/11 23:00	0.01403	304
2011-10-20-0100	100	1.16	10/20/11 1:00	0.0116	.305
2011-10-20-0300	100	0.976	10/20/11 3:00	0.00976	306
2011-10-20-0400	100	1.063	10/20/11 4:00	0.01063	307
2011-10-20-0500	549	7.3	10/20/11 5:00	0.013297	308
2011-10-20-0600	800	8.642	10/20/11 6:00	0.010803	309
2011-10-20-0700	525	0.785	10/20/11 7:00	0.001495	310
2011-10-20-0800	447	-0.434	10/20/11 8:00	-0.00097	311
2011-10-20-0900	595	-0.497	10/20/11 9:00	-0.00084	312
2011-10-20-1000	598	-2.401	10/20/11 10:00	-0.00402	313
2011-10-20-1100	472	-4.118	10/20/11 11:00	-0.00872	314
2011-10-20-1200	524	-3.296	10/20/11 12:00	-0.00629	315
2011-10-20-1300	500	-3.558	10/20/11 13:00	-0.00712	316
2011-10-20-1400	550	-2.812	10/20/11 14:00	-0.00511	317
2011-10-20-1500	696	-0.704	10/20/11 15:00	-0.00101	318
2011-10-20-1600	698	-0.411	10/20/11 16:00	-0.00059	319
2011-10-20-1700	700	-0.035	10/20/11 17:00	-0.00005	320
2011-10-20-1800	641	0.081	10/20/11 18:00	0.000126	321
2011-10-20-1900	500	-0.105	10/20/11 19:00	-0.00021	322
2011-10-20-2000	450	-0.303	10/20/11 20:00	-0.00067	323
2011-10-20-2100	491	6.766	10/20/11 21:00	0.01378	324
2011-10-20-2200	650	8.845	10/20/11 22:00	0.013608	325
2011-10-20-2300	550	7.166	10/20/11 23:00	0.013029	326
2011-10-21-0000	550	7.009	10/21/11 0:00	0.012744	327
2011-10-21-0100	450	5.266	10/21/11 1:00	0.011702	328
2011-10-21-0500	450	4.194	10/21/11 5:00	0.00932	329
2011-10-21-0600	750	8.276	10/21/11 6:00	0.011035	330
2011-10-21-0700	550	5.389	10/21/11 7:00	0.009798	331
2011-10-21-0800	450	2.693	10/21/11 8:00	0.005984	332
2011-10-21-0900	599	4.516	10/21/11 9:00	0.007539	333
2011-10-21-1000	698	6.771	10/21/11 10:00	0.009701	334
2011-10-21-1100	800	9.738	10/21/11 11:00	0.012173	335
2011-10-21-1200	850	10.817	10/21/11 12:00	0.012726	336
2011-10-21-1300	818	6.228	10/21/11 13:00	0.007614	337
2011-10-21-1400	600	5.52	10/21/11 14:00	0.0092	338
2011-10-21-1500	700	8.499	10/21/11 15:00	0.012141	339
2011-10-21-1600	798	10.194	10/21/11 16:00	0.012774	340
2011-10-21-1700	919	12.265	10/21/11 17:00	0.013346	341
2011-10-21-1800	918	12.732	10/21/11 18:00	0.013869	342
2011-10-21-1900	918	12.899	10/21/11 19:00	0.014051	343
2011-10-21-2000	918	13.2	10/21/11 20:00	0.014379	344
2011-10-21-2100	917	13.053	10/21/11 21:00	0.014234	345
2011-10-21-2200	917	12.319	10/21/11 22:00	0.013434	346
2011-10-21-2300	551	6.861	10/21/11 23:00	0.012452	347
2011-10-22-0000	551	6.144	10/22/11 0:00	0.011151	348
2011-10-22-0100	651	8.062	10/22/11 1:00	0.012384	349
2011-10-22-0200	651	7.852	10/22/11 2:00	0.012061	350
2011-10-22-0300	651	7.627	10/22/11 3:00	0.011716	351
2011-10-22-0400	651	7.516	10/22/11 4:00	0.011710	352
_011 10 22 0700	0.71	7.510	10/22/11 4.00	5,511545	سط لد. ب

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-10-22-0500	651	7.542	10/22/11 5:00	0.011585	353
2011-10-22-0600	651	7.856	10/22/11 6:00	0.012068	354
2011-10-22-0700	700	8.85	10/22/11 7:00	0.012643	355
2011-10-22-0800	700	9.488	10/22/11 8:00	0.013554	356
2011-10-22-0900	650	8.09	10/22/11 9:00	0.012446	357
2011-10-22-1000	550	6.431	10/22/11 10:00	0.011693	358
2011-10-22-1100	638	7.442	10/22/11 11:00	0.011665	359
2011-10-22-1200	800	9.293	10/22/11 12:00	0.011616	360
2011-10-22-1300	949	10.27	10/22/11 13:00	0.010822	361
2011-10-22-1400	1049	11.448	10/22/11 14:00	0.010913	362
2011-10-22-1500	1100	12.169	10/22/11 15:00	0.011063	363
2011-10-22-1600	1152	12.893	10/22/11 16:00	0.011192	364
2011-10-22-1700	1152	13.082	10/22/11 17:00	0.011356	365
2011-10-22-1800	1126	13.104	10/22/11 18:00	0.011638	366
2011-10-22-1900	931	10.329	10/22/11 19:00	0.011095	367
2011-10-22-2000	950	10.583	10/22/11 20:00	0.01114	368
2011-10-22-2100	925	11.562	10/22/11 21:00	0.012499	369
2011-10-22-2200	400	3.71	10/22/11 22:00	0.009275	370
2011-10-22-2300	100	0.897	10/22/11 23:00	0.00897	371
2011-10-23-0000	100	0.775	10/23/11 0:00	0.00775	372
2011-10-23-0100	100	0.87	10/23/11 1:00	0.0087	373
2011-10-23-0200	100	0.833	10/23/11 2:00	0.00833	374
2011-10-23-0300	400	3.123	10/23/11 3:00	0.007808	375
2011-10-23-0400	651	6.143	10/23/11 4:00	0.009436	376
2011-10-23-0500	651	5.927	10/23/11 5:00	0.009104	377
2011-10-23-0600	651	5.345	10/23/11 6:00	0.00821	378
2011-10-23-0700	500	4.482	10/23/11 7:00	0.008964	379
2011-10-23-0800	600	5.503	10/23/11 8:00	0.009172	380
2011-10-23-0900	550	4.903	10/23/11 9:00	0.008915	381
2011-10-23-1000	450	3.482	10/23/11 10:00	0.007738	382
2011-10-23-1100	500	3.998	10/23/11 11:00	0.007996	383
2011-10-23-1200	625	5.06	10/23/11 12:00	0.008096	384
2011-10-23-1300	651	5.394	10/23/11 13:00	0.008286	385
2011-10-23-1400	750	6.203	10/23/11 14:00	0.008271	386
2011-10-23-1500	750	6.339	10/23/11 15:00	0.008452	387
2011-10-23-1600	800	6.804	10/23/11 16:00	0.008505	388
2011-10-23-1700	800	6.956	10/23/11 17:00	0.008695	389
2011-10-23-1800	775	6.958	10/23/11 18:00	0.008978	390
2011-10-23-1900	525	4.33	10/23/11 19:00	0.008248	391
2011-10-23-2000	450	4.009	10/23/11 20:00	0.008909	392
2011-10-23-2100	449	4.007	10/23/11 21:00	0.008924	393
2011-10-23-2200	600	5,752	10/23/11 22:00	0.009587	394
2011-10-23-2300	550	5.031	10/23/11 23:00	0.009147	395
2011-10-24-0000	163	1.428	10/24/11 0:00	0.008761	396
2011-10-24-0100	100	0.855	10/24/11 1:00	0.00855	397
2011-10-24-0200	250	1.528	10/24/11 2:00	0.006112	398
2011-10-24-0300	300	1.775	10/24/11 3:00	0.005917	399
2011-10-24-0400	450	3.237	10/24/11 4:00	0.007193	400
2011-10-24-0500	625	4.793	10/24/11 5:00	0.007669	401
2011-10-24-0600	300	1.515	10/24/11 6:00	0.00505	402
2011-10-24-0700	100	0.078	10/24/11 7:00	0.00078	403
2011-10-24-0800	100	0.278	10/24/11 8:00	0.00278	404
2011-10-24-0900	100	0.151	10/24/11 9:00	0.00151	405
2011-10-24-1300	100	0.226	10/24/11 13:00	0.00226	406
2011-10-24-2200	300	3.673	10/24/11 22:00	0.012243	407
2011-10-24-2300	500	5.262	10/24/11 23:00	0.010524	408

						Average
Hour	oss	Inc Loss	Date-Time	% Losses	0.459	% Los
2011-10-25-0000	438	5.397	10/25/11 0:00	0.012322	409	
2011-10-25-0500	625	5.254	10/25/11 5:00	0.008406	410	
2011-10-25-0600	675	5.867	10/25/11 6:00	0.008692	411	
2011-10-25-2200	250	2.595	10/25/11 22:00	0.01038	412	
2011-10-25-2300	400	4.318	10/25/11 23:00	0.010795	413	
2011-10-26-0000	551	6.079	10/26/11 0:00	0.011033	414	
2011-10-26-0100	500	4.944	10/26/11 1:00	0.009888	415	
2011-10-26-0200	188	1.601	10/26/11 2:00	0.008516	416	
2011-10-26-0500	325	3.279	10/26/11 5:00	0.010089	417	
2011-10-26-0600	651	6.839	10/26/11 6:00	0.010505	418	
2011-10-26-1900	180	1.939	10/26/11 19:00	0.010772	419	
2011-10-26-2000	200	2.319	10/26/11 20:00	0.011595	420	
2011-10-26-2100	500	6.737	10/26/11 21:00	0.013474	421	
2011-10-26-2200	551	7.182	10/26/11 22:00	0.013034	422	
2011-10-26-2300	188	1.885	10/26/11 23:00	0.010027	423	
2011-10-27-0500	325	2.8	10/27/11 5:00	0.008615	424	
2011-10-27-0600	701	7.242	10/27/11 6:00	0.010331	425	
2011-10-27-0700	119	1.112	10/27/11 7:00	0.009345	426	
2011-10-28-0000 2011-10-28-0100	150 400	1.652 3.524	10/28/11 0:00 10/28/11 1:00	0.011013	427 428	
2011-10-28-0100	551	3.324 4.7	10/28/11 1:00	0.00853	428 429	
2011-10-28-0300	800	7.529	10/28/11 3:00	0.00833	430	
2011-10-28-0400	900	8.642	10/28/11 4:00	0.009411	431	
2011-10-28-0500	900	9.174	10/28/11 5:00	0.000002	432	
2011-10-28-0600	400	3.319	10/28/11 6:00	0.008298	433	
2011-10-28-1100	188	2.001	10/28/11 11:00	0.010644	434	
2011-10-28-1500	188	2.211	10/28/11 15:00	0.011761	435	
2011-10-29-0100	149	1.428		0.009584	436	
2011-10-29-0200	199	1.835	10/29/11 2:00	0.009221	437	
2011-10-29-0300	200	1.711	10/29/11 3:00	0.008555	438	
2011-10-29-0400	200	1.672	10/29/11 4:00	0.00836	439	
2011-10-29-0500	400	4.482	10/29/11 5:00	0.011205	440	
2011-10-29-0600	400	5.031	10/29/11 6:00	0.012578	441	
2011-10-29-0700	325	4.606	10/29/11 7:00	0.014172	442	
2011-10-29-0800	300	4.625	10/29/11 8:00	0.015417	443	
2011-10-29-0900	300	4.497	10/29/11 9:00	0.01499	444	
2011-10-29-1000	325	5.111	10/29/11 10:00	0.015726	445	
2011-10-29-1100	400	5.635	10/29/11 11:00		446	
2011-10-29-1600	250	2.587		0.010348	447	
2011-10-29-1700	500	5.132	10/29/11 17:00	0.010264	448	
2011-10-29-1800	475	5.162	10/29/11 18:00	0.010867	449	
2011-10-29-1900	457	4.942	10/29/11 19:00	0.010814	450	
2011-10-29-2000	602	6.654	10/29/11 20:00	0.011053	451	
2011-10-29-2100	548	5.879	10/29/11 21:00	0.010728	452	
2011-10-29-2200	542	5.523	10/29/11 22:00	0.01019 0.009855	453	
2011-10-29-2300 2011-10-30-0000	550 500	5.42 4.43	10/29/11 23:00 10/30/11 0:00	0.009833	454 455	
2011-10-30-0000	400	3.382	10/30/11 1:00	0.008455	456	
2011-10-30-0100	400	3.582	10/30/11 1:00	0.008433	457	
2011-10-30-0200	400	3.728	10/30/11 3:00	0.008973	458	
2011-10-30-0300	375	3.739	10/30/11 4:00	0.00932	459	
2011-10-30-0400	550	6.119	10/30/11 5:00	0.003371	460	
2011-10-30-0600	547	6.757	10/30/11 6:00	0.012353	461	
2011-10-30-0700	500	5.997	10/30/11 7:00	0.011994	462	
2011-10-30-0800	450	5.683	10/30/11 8:00	0.012629	463	
2011-10-30-0900	425	5.198	10/30/11 9:00	0.012231	464	

			LGEE Hourly Incren	nental Losse	es	
**	000	T 1	TD 4 707*	0/ 7		Average Incremental
Hour	OSS	Inc Loss	Date-Time	% Losses	465	0.45% Loss Factor
2011-10-30-1000	450	5.138	10/30/11 10:00		465	
2011-10-30-1100	550	5.945	10/30/11 11:00		466	
2011-10-30-1200	550	5.834	10/30/11 12:00		467	
2011-10-30-1300	400	3.955	10/30/11 13:00		468	
2011-10-30-1400	551	5.473	10/30/11 14:00		469	
2011-10-30-1500	551	5.365	10/30/11 15:00	0.009737	470	
2011-10-30-1600	551	5.129	10/30/11 16:00		471	
2011-10-30-1700	551	5.089	10/30/11 17:00		472	
2011-10-30-1800	651	6.863	10/30/11 18:00		473	
2011-10-30-1900	651	7.045	10/30/11 19:00 10/30/11 20:00		474	
2011-10-30-2000	500	4.853			475	
2011-10-30-2100 2011-10-30-2200	540 550	4.751 5.358	10/30/11 21:00 10/30/11 22:00	0.008798 0.009742	476 477	
2011-10-30-2200	550	5.01	10/30/11 22:00		477	
2011-10-30-2300	550	5.957	10/31/11 0:00		478	
2011-10-31-0000	550	6.192	10/31/11 1:00		480	
2011-10-31-0100	550	6.362	10/31/11 1:00	0.011238	480	
2011-10-31-0200	550	6.026	10/31/11 2:00		482	
2011-10-31-0300	550	6.299	10/31/11 4:00		483	
2011-10-31-0400	549	5.646	10/31/11 5:00		484	
2011-10-31-0500	549	5.741	10/31/11 5:00		485	
2011-10-31-0000	399	4.275	10/31/11 7:00		486	
2011-10-31-0800	296	3.076	10/31/11 8:00		487	
2011-10-31-0900	400	4.592	10/31/11 9:00	0.010372	488	
2011-10-31-1000	202	2.353	10/31/11 10:00		489	
2011-10-31-1000	181	1.987	10/31/11 11:00		490	
2011-10-31-1300	188	1.801	10/31/11 13:00	0.00958	491	
2011-10-31-1300	438	4.181	10/31/11 14:00		492	
2011-10-31-1700	199	1.026	10/31/11 17:00		493	
2011-10-31-1800	186	0.98	10/31/11 18:00		494	
2011-10-31-1000	114	0.547	10/31/11 20:00		495	
2011-10-31-2100	249	2.125	10/31/11 21:00		496	
2011-10-31-2200	325	2.851	10/31/11 22:00		497	
2011-10-31-2300	450	4.922	10/31/11 23:00		498	
2011-11-01-0000	250	2.388	11/1/11 0:00		1	498 232,594 2,062
2011-11-01-0100	404	4.893	11/1/11 1:00		2	avg 467 4.141 0.887%
2011-11-01-0200	408	4.642	11/1/11 2:00		3	
2011-11-01-0300	408	4.809	11/1/11 3:00		4	
2011-11-01-0400	455	5.145	11/1/11 4:00		5	
2011-11-01-0500	456	5.418	11/1/11 5:00		6	
2011-11-01-0600	458	5.457	11/1/11 6:00		7	
2011-11-01-0700	325	3.404	11/1/11 7:00		8	
2011-11-01-0800	150	0.577	11/1/11 8:00	0.003847	9	
2011-11-01-1000	225	2.733	11/1/11 10:00	0.012147	10	
2011-11-01-1100	325	4.07	11/1/11 11:00	0.012523	11	
2011-11-01-1200	550	7.368	11/1/11 12:00	0.013396	12	
2011-11-01-1300	650	8.893	11/1/11 13:00	0.013682	13	
2011-11-01-1400	750	10.304	11/1/11 14:00	0.013739	14	
2011-11-01-1500	800	10.867	11/1/11 15:00	0.013584	15	
2011-11-01-1600	800	11.589	11/1/11 16:00	0.014486	16	
2011-11-01-1700	686	9.942	11/1/11 17:00	0.014493	17	
2011-11-01-1800	686	10.386	11/1/11 18:00	0.01514	18	
2011-11-01-1900	700	10.488	11/1/11 19:00	0.014983	19	
2011-11-01-2000	663	9.896	11/1/11 20:00		20	
2011-11-01-2100	697	10.366	11/1/11 21:00		21	
2011-11-01-2200	708	10.363	11/1/11 22:00	0.014637	22	

Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-11-01-2300	708	10.672	11/1/11 23:00	0.015073	23	
2011-11-02-0000	708	10.612	11/2/11 0:00	0.014989	24	
2011-11-02-0100	658	9.734	11/2/11 1:00	0.014793	25	
2011-11-02-0200	658	9.23	11/2/11 2:00	0.014027	26	
2011-11-02-0300	658	8.972	11/2/11 3:00	0.013635	27	
2011-11-02-0400	658	9.46	11/2/11 4:00	0.014377	28	
2011-11-02-0500	658	9.604	11/2/11 5:00	0.014596	29	
2011-11-02-0600	658	10.196	11/2/11 6:00	0.015495	30	
2011-11-02-0700	404	5.638	11/2/11 7:00	0.013955	31	
2011-11-02-0800	191	2.434	11/2/11 8:00	0.012743	32	
2011-11-02-0900	350	5.141	11/2/11 9:00	0.014689	33	
2011-11-02-1000	488	7.596	11/2/11 10:00	0.015566	34	
2011-11-02-1100	600	9.204	11/2/11 11:00	0.01534	35	
2011-11-02-1200	699	11.05	11/2/11 12:00	0.015808	36	
2011-11-02-1300	658	10.311	11/2/11 13:00	0.01567	37	
2011-11-02-1400	658	10.485	11/2/11 14:00	0.015935	38	
2011-11-02-1500	658	10.506	11/2/11 15:00	0.015967	39	
2011-11-02-1600	480	7.796	11/2/11 16:00	0.016242	40	
2011-11-02-1700	658	11.069	11/2/11 17:00	0.016822	41	
2011-11-02-1800	658	11.222	11/2/11 18:00	0.017055	42	
2011-11-02-1900	727	11.93	11/2/11 19:00	0.01641	43	
2011-11-02-2000	727	11.824	11/2/11 20:00	0.016264	44	
2011-11-02-2100	727	11.662	11/2/11 21:00	0.016041	45	
2011-11-02-2200	712	11.469	11/2/11 22:00	0.016108	46	
2011-11-02-2300	709	11.764	11/2/11 23:00	0.016592	47	
2011-11-03-0000	733	12.519	11/3/11 0:00	0.017079	48 49	
2011-11-03-0100	733	11.215	11/3/11 1:00 11/3/11 2:00	0.0153 0.014357	50	
2011-11-03-0200 2011-11-03-0300	733 733	10.524 10.416	11/3/11 2:00	0.014337	51	
2011-11-03-0400	733	10.410	11/3/11 4:00	0.01421	52	
2011-11-03-0400	733	10.037	11/3/11 5:00	0.014887	53	
2011-11-03-0600	833	12.356	11/3/11 6:00	0.014833	54	
2011-11-03-0700	536	7.437	11/3/11 7:00	0.013875	55	
2011-11-03-0800	400	5,102	11/3/11 8:00	0.012755	56	
2011-11-03-0900	408	5.265	11/3/11 9:00	0.012904	57	
2011-11-03-1000	643	8.592	11/3/11 10:00	0.013362	58	
2011-11-03-1100	647	8.522	11/3/11 11:00	0.013172	59	
2011-11-03-1200	406	5.162	11/3/11 12:00	0.012714	60	
2011-11-03-1300	464	5.969	11/3/11 13:00	0.012864	61	
2011-11-03-1400	400	5.185	11/3/11 14:00	0.012963	62	
2011-11-03-1500	400	5.624	11/3/11 15:00	0.01406	63	
2011-11-03-1600	400	5.361	11/3/11 16:00	0.013403	64	
2011-11-03-1700	390	5.076	11/3/11 17:00	0.013015	65	
2011-11-03-1800	351	4.679	11/3/11 18:00	0.01333	66	
2011-11-03-1900	400	5.035	11/3/11 19:00	0.012588	67	
2011-11-03-2000	500	6.364	11/3/11 20:00	0.012728	68	
2011-11-03-2100	691	10.014	11/3/11 21:00	0.014492	69	
2011-11-03-2200	694	10.146	11/3/11 22:00	0.01462	70	
2011-11-03-2300	671	9.759	11/3/11 23:00	0.014544	71	
2011-11-04-0000	783	11.437	11/4/11 0:00	0.014607	72	
2011-11-04-0100	709	10.356	11/4/11 1:00	0.014606	73 74	
2011-11-04-0200 2011-11-04-0300	711	10.55 5.459	11/4/11 2:00 11/4/11 3:00	0.014838 0.012666	74 75	
2011-11-04-0500	431 275	3.439	11/4/11 5:00	0.012666	73 76	
2011-11-04-0300	100	0.43	11/4/11 12:00	0.0043	70 77	
2011-11-04-1200	100	0.602	11/4/11 13:00	0.0043	78	
2011 11-04-1000	100	0.002	11/7/11 15:00	0.00002	70	

Average	Incremental			
Loss Factor				

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Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-11-04-1400	200	1.256	11/4/11 14:00	0.00628	79	
2011-11-04-1500	250	2.316	11/4/11 15:00	0.009264	80	
2011-11-04-1600	250	2.365	11/4/11 16:00	0.00946	81	
2011-11-04-1700	397	4.5	11/4/11 17:00	0.011335	82	
2011-11-04-1800	397	4.657	11/4/11 18:00	0.01173	83	
2011-11-04-1900	349	3.771	11/4/11 19:00	0.010805	84	
2011-11-04-2000	300	3.031	11/4/11 20:00	0.010103	85	
2011-11-04-2100	450	5.628	11/4/11 21:00	0.012507	86	
2011-11-04-2200	600	9.095	11/4/11 22:00	0.015158	87	
2011-11-04-2300	646	10.106	11/4/11 23:00	0.015644	88	
2011-11-05-0000	659	10.263	11/5/11 0:00	0.015574	89	
2011-11-05-0100	712	10.304	11/5/11 1:00	0.014472	90	
2011-11-05-0200	661	9.025	11/5/11 2:00	0.013654	91	
2011-11-05-0300	661	9.225	11/5/11 3:00	0.013956	92	
2011-11-05-0400	683	8.998	11/5/11 4:00	0.013174	93	
2011-11-05-0500	679	6.196	11/5/11 5:00	0.009125	94	
2011-11-05-0600	584	3.346	11/5/11 6:00	0.005729	95	
2011-11-05-0700	449	1.7	11/5/11 7:00	0.003786	96	
2011-11-05-0800	425	1.105	11/5/11 8:00	0.0026	97	
2011-11-05-0900	425	1.511	11/5/11 9:00	0.003555	98	
2011-11-05-1000	500	2.665	11/5/11 10:00	0.00533	99	
2011-11-05-1100	646	1.658	11/5/11 11:00	0.002567	100	
2011-11-05-1200	638	1.431	11/5/11 12:00	0.002243	101	
2011-11-05-1300	566	-1.743	11/5/11 13:00	-0.00308	102	
2011-11-05-1400	200	-2.863	11/5/11 14:00	-0.01432	103	
2011-11-05-1500	300	-0.893	11/5/11 15:00	-0.00298	104	
2011-11-05-1600	100	0.945	11/5/11 16:00	0.00945	105	
2011-11-05-1700	225	2.63	11/5/11 17:00	0.011689	106	
2011-11-05-1800	175	2.116	11/5/11 18:00	0.012091	107	
2011-11-06-0100	150	1.15	11/6/11 1:00	0.007667	108	
2011-11-06-0200	275	3.17	11/6/11 2:00	0.011527	109	
2011-11-06-0300	200	2.107	11/6/11 3:00	0.010535	110	
2011-11-06-0400	113	0.721	11/6/11 4:00	0.006381	111	
2011-11-06-1400	175	1.25	11/6/11 14:00	0.007143	112	
2011-11-06-1700	100	0.613	11/6/11 17:00	0.00613	113	
2011-11-07-0200	113	1.073	11/7/11 2:00	0.009496	114	
2011-11-07-0300	300	3.51	11/7/11 3:00	0.0117	115	
2011-11-07-0400	200	2.378	11/7/11 4:00	0.01189	116	
2011-11-07-0500	250	2.808	11/7/11 5:00	0.011232	117	
2011-11-07-1300	113	0.957	11/7/11 13:00	0.008469	118	
2011-11-07-1400	150	0.63	11/7/11 14:00	0.0042	119	
2011-11-07-1500	270	0.524	11/7/11 15:00	0.001941	120	
2011-11-07-1600	300	2.532	11/7/11 16:00	0.00844	121	
2011-11-07-1700	353	3.058	11/7/11 17:00	0.008663	122	
2011-11-07-1800	358	1.893	11/7/11 18:00	0.005288	123	
2011-11-07-1900	373	1.396	11/7/11 19:00	0.003743	124	
2011-11-07-2000	367	2.047	11/7/11 20:00	0.005578	125	
2011-11-07-2100	373	2.378	11/7/11 21:00	0.006375	126	
2011-11-07-2200	281	1.986	11/7/11 22:00	0.007068	127	
2011-11-08-0600	288	0.992	11/8/11 6:00	0.003444	128	
2011-11-08-0700	424	3.004	11/8/11 7:00	0.007085	129	
2011-11-08-0800	247	0.773	11/8/11 8:00	0.00313	130	
2011-11-08-0900	349	2.304	11/8/11 9:00	0.006602	131	
2011-11-08-1000	500	5.075	11/8/11 10:00	0.01015	132	
2011-11-08-1100	356	2.726	11/8/11 11:00	0.007657	133	
2011-11-08-1200	100	0.05	11/8/11 12:00	0.0005	134	

Hour	oss	Inc Loss	Date-Time	% Losses	0.45%
2011-11-08-1400	100	1.191	11/8/11 14:00	0.01191	135
2011-11-08-1500	260	3.73	11/8/11 15:00	0.014346	136
2011-11-08-1600	250	0.484	11/8/11 16:00	0.001936	137
2011-11-08-1700	425	2.723	11/8/11 17:00	0.006407	138
2011-11-08-1800	456	2.881	11/8/11 18:00	0.006318	139
2011-11-08-1900	340	1.088	11/8/11 19:00	0.0032	140
2011-11-08-2000	300	0.191	11/8/11 20:00	0.000637	141
2011-11-08-2100	475	2.431	11/8/11 21:00	0.005118	142
2011-11-08-2200	550	4.279	11/8/11 22:00	0.00778	143
2011-11-08-2300	600	5.55	11/8/11 23:00	0.00925	144
2011-11-09-0000	300	1.442	11/9/11 0:00	0.004807	145
2011-11-09-0100	231	1.693	11/9/11 1:00	0.007329	146
2011-11-09-0700	298	1.535	11/9/11 7:00	0.005151	147
2011-11-09-0800	297	1.491	11/9/11 8:00	0.00502	148
2011-11-09-0900	298	1.62	11/9/11 9:00	0.005436	149
2011-11-09-1000	394	3.057	11/9/11 10:00	0.007759	150
2011-11-09-1100	419	4.284	11/9/11 11:00	0.010224	151
2011-11-09-1200	397	4.103	11/9/11 12:00	0.010335	152
2011-11-09-1300	349	2.933	11/9/11 13:00	0.008404	153
2011-11-09-1400	375	3.185	11/9/11 14:00	0.008493	154
2011-11-09-1500	400	1.495	11/9/11 15:00	0.003738	155
2011-11-09-1600	450	0.413	11/9/11 16:00	0.000918	156
2011-11-09-1700	436	0.559	11/9/11 17:00	0.001282	157
2011-11-09-1800	425	0.088	11/9/11 18:00	0.000207	158
2011-11-09-1900	325	-1.426	11/9/11 19:00	-0.00439	159
2011-11-09-2000	375	-0.818	11/9/11 20:00	-0.00218	160
2011-11-09-2100	544	1.549	11/9/11 21:00	0.002847	161
2011-11-09-2200	400	1.928	11/9/11 22:00	0.00482	162
2011-11-09-2300	300	2.005	11/9/11 23:00	0.006683	163
2011-11-10-0000	200	0.617	11/10/11 0:00	0.003085	164
2011-11-10-0100	200	1.797	11/10/11 1:00	0.008985	165
2011-11-10-0200	200	1.649	11/10/11 2:00	0.008245	166
2011-11-10-0500	150	1.243	11/10/11 5:00	0.008287	167
2011-11-10-0600	496	5.266	11/10/11 6:00	0.010617	168
2011-11-10-0700	600	7.017	11/10/11 7:00	0.011695	169
2011-11-10-0800	300	3.577	11/10/11 8;00	0.011923	170
2011-11-10-0900	263	3.091	11/10/11 9:00	0.011753	171
2011-11-10-1000	400	5.119	11/10/11 10:00	0.012798	172
2011-11-10-1100	525	7.304	11/10/11 11:00	0.013912	173
2011-11-10-1200	625	9.493	11/10/11 12:00	0.015189	174
2011-11-10-1300	675	10.143	11/10/11 13:00	0.015027	175
2011-11-10-1400	700	10.549	11/10/11 14:00	0.01507	176
2011-11-10-1500	750	11.579	11/10/11 15:00	0.015439	177
2011-11-10-1600	800	12.468	11/10/11 16:00	0.015585	178
2011-11-10-1700	800	10.873	11/10/11 17:00	0.013591	179
2011-11-10-1800	281	2.377	11/10/11 18:00	0.008459	180
2011-11-10-1900	400	3.73	11/10/11 19:00	0.009325	181
2011-11-10-2000	400	2.274	11/10/11 20:00	0.005685	182
2011-11-10-2100	400	1.057	11/10/11 21:00	0.002643	183
2011-11-10-2200	475	4.121	11/10/11 22:00	0.008676	184
2011-11-10-2300	575	6.858	11/10/11 23:00	0.011927	185
2011-11-11-0000	600	7.28	11/11/11 0:00	0.012133	186
2011-11-11-0100	500	5.445	11/11/11 1:00	0.01089	187
2011-11-11-0200	224	1.638	11/11/11 2:00	0.007313	188
2011-11-11-0300	500	5.736	11/11/11 3:00	0.011472	189
2011-11-11-0400	500	5.48	11/11/11 4:00	0.01096	190

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Hour	OSS	Inc Loss	Date-Time	% Losses	0.45%
2011-11-11-0500	500	5.281	11/11/11 5:00	0.010562	191
2011-11-11-0600	725	9.542	11/11/11 6:00	0.013161	192
2011-11-11-0700	338	2.49	11/11/11 7:00	0.007367	193
2011-11-11-0800	150	-1.5	11/11/11 8:00	-0.01	194
2011-11-11-1000	150	-0.734	11/11/11 10:00	-0.00489	195
2011-11-11-1100	297	2.393	11/11/11 11:00	0.008057	196
2011-11-11-1200	400	4.58	11/11/11 12:00	0.01145	197
2011-11-11-1300	500	6.451	11/11/11 13:00	0.012902	198
2011-11-11-1400	560	7.399	11/11/11 14:00	0.013213	199
2011-11-11-1500	560	7.128	11/11/11 15:00	0.013213	200
2011-11-11-1600	585	7.544	11/11/11 16:00	0.012725	201
2011-11-11-1700	585	4.565	11/11/11 17:00	0.012890	202
			11/11/11 17:00		
2011-11-11-1800	545	2.808		0.005152	203
2011-11-11-1900	475	3.418	11/11/11 19:00	0.007196	204
2011-11-11-2000	350	3.394	11/11/11 20:00	0.009697	205
2011-11-11-2100	413	2.152	11/11/11 21:00	0.005211	206
2011-11-11-2200	592	4.41	11/11/11 22:00	0.007449	207
2011-11-11-2300	605	7.729	11/11/11 23:00	0.012775	208
2011-11-12-0000	299	3.693	11/12/11 0:00	0.012351	209
2011-11-12-0100	408	5.308	11/12/11 1:00	0.01301	210
2011-11-12-0200	408	5.223	11/12/11 2:00	0.012801	211
2011-11-12-0300	408	4.878	11/12/11 3:00	0.011956	212
2011-11-12-0400	408	4.892	11/12/11 4:00	0.01199	213
2011-11-12-0500	408	5.194	11/12/11 5:00	0.01273	214
2011-11-12-0600	514	6.437	11/12/11 6:00	0.012523	215
2011-11-12-0700	514	6.079	11/12/11 7:00	0.011827	216
2011-11-12-0800	795	11.204	11/12/11 8:00	0.014093	217
2011-11-12-0900	920	13.433	11/12/11 9:00	0.014601	218
2011-11-12-1000	927	12.911	11/12/11 10:00	0.013928	219
2011-11-12-1100	697	7.973	11/12/11 11:00	0.011439	220
2011-11-12-1200	767	8.762	11/12/11 12:00	0.011424	221
2011-11-12-1300	700	7.731	11/12/11 13:00	0.011044	222
2011-11-12-1400	200	0.856	11/12/11 14:00	0.00428	223
2011-11-12-1800	381	2.391	11/12/11 18:00	0.006276	224
2011-11-12-1900	697	7.471	11/12/11 19:00	0.010719	225
2011-11-12-2000	652	7.053	11/12/11 19:00	0.010717	226
2011-11-12-2100	752	8.22	11/12/11 20:00	0.010931	227
2011-11-12-2100	666	6,746	11/12/11 21:00	0.010331	228
2011-11-12-2300	344	2.834	11/12/11 22:00	0.010129	
2011-11-12-2300	224	0.999			229
2011-11-13-0800			11/13/11 8:00 11/13/11 9:00	0.00446	230
	408	3.828		0.009382	231
2011-11-13-1000	408	3.899	11/13/11 10:00	0.009556	232
2011-11-13-1100	667	7.835	11/13/11 11:00	0.011747	233
2011-11-13-1200	408	3.925	11/13/11 12:00	0.00962	234
2011-11-13-1800	652	5.519	11/13/11 18:00	0.008465	235
2011-11-13-1900	733	7.562	11/13/11 19:00	0.010317	236
2011-11-13-2000	733	8.011	11/13/11 20:00	0.010929	237
2011-11-13-2100	408	3.154	11/13/11 21:00	0.00773	238
2011-11-13-2200	408	1.776	11/13/11 22:00	0.004353	239
2011-11-13-2300	408	2.691	11/13/11 23:00	0.006596	240
2011-11-14-0700	278	1.091	11/14/11 7:00	0.003924	241
2011-11-14-0800	497	3.498	11/14/11 8:00	0.007038	242
2011-11-14-0900	604	5.429	11/14/11 9:00	0.008988	243
2011-11-14-1000	408	3.648	11/14/11 10:00	0.008941	244
2011-11-14-1100	408	3.714	11/14/11 11:00	0.009103	245
2011-11-14-1200	408	4.164	11/14/11 12:00	0.010206	246

Average Incremental Loss Factor

0.45%

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-11-14-1400	200	1.539	11/14/11 14:00	0.007695	247
2011-11-14-1500	508	5.451	11/14/11 15:00	0.007033	248
2011-11-14-1600	558	6.272	11/14/11 15:00	0.01073	249
2011-11-14-1700	458	4.736	11/14/11 17:00	0.01124	250
2011-11-14-1800	508	4.77	11/14/11 18:00	0.00939	251
2011-11-14-1900	583	5.611	11/14/11 19:00	0.009624	252
2011-11-14-2000	458	4.163	11/14/11 20:00	0.009024	253
2011-11-14-2100	408	4.057	11/14/11 21:00	0.009944	254
2011-11-14-2200	408	3.886	11/14/11 22:00	0.009525	255
2011-11-15-0700	300	1.904	11/15/11 7:00	0.006347	256
2011-11-15-0800	420	3.737	11/15/11 8:00	0.008898	257
2011-11-15-0900	660	6.882	11/15/11 9:00	0.010427	258
2011-11-15-1000	560	5.893	11/15/11 10:00	0.010523	259
2011-11-15-1100	626	7.29	11/15/11 11:00	0.011645	260
2011-11-15-1200	560	6.255	11/15/11 12:00	0.01117	261
2011-11-15-1300	560	6.268	11/15/11 13:00	0.011193	262
2011-11-15-1400	560	5.263	11/15/11 14:00	0.009398	263
2011-11-15-1500	580	-3.625	11/15/11 15:00	-0.00625	264
2011-11-15-1800	250	1.507	11/15/11 18:00	0.006028	265
2011-11-15-1900	550	5.035	11/15/11 19:00	0.009155	266
2011-11-15-2000	560	5.575	11/15/11 20:00	0.009955	267
2011-11-15-2100	300	2.332	11/15/11 21:00	0.007773	268
2011-11-16-0700	300	1.587	11/16/11 7:00	0.00529	269
2011-11-16-0800	558	4.98	11/16/11 8:00	0.008925	270
2011-11-16-0900	560	5.491	11/16/11 9:00	0.009805	271
2011-11-16-1000	560	5.511	11/16/11 10:00	0.009841	272
2011-11-16-1100	509	5.178	11/16/11 11:00	0.010173	273
2011-11-16-1200	559	6.083	11/16/11 12:00	0.010882	274
2011-11-16-1300	560	5.966	11/16/11 13:00	0.010654	275
2011-11-16-1400	560	5.791	11/16/11 14:00	0.010341	276
2011-11-16-1500	560	6.298	11/16/11 15:00	0.011246	277
2011-11-16-1600	575	6.83	11/16/11 16:00	0.011878	278
2011-11-16-1700	611	7.847	11/16/11 17:00	0.012843	279
2011-11-16-1800	601	6.226	11/16/11 18:00	0.010359	280
2011-11-16-1900	432	-0.501	11/16/11 19:00	-0.00116	281
2011-11-17-1500	165	-2.228	11/17/11 15:00	-0.0135	282
2011-11-17-1600	239	-0.103	11/17/11 16:00	-0.00043	283
2011-11-17-1700	304	0.372	11/17/11 17:00	0.001224	284
2011-11-17-1800	300	-0.779	11/17/11 18:00	-0.0026	285
2011-11-17-1900	175	-2.858	11/17/11 19:00	-0.01633	286
2011-11-17-2000	250	-1.525	11/17/11 20:00	-0.0061	287
2011-11-17-2100	125	-2.752	11/17/11 21:00	-0.02202	288
2011-11-18-0200	300	2.239	11/18/11 2:00	0.007463	289
2011-11-18-0300	300	2.619	11/18/11 3:00	0.00873	290
2011-11-18-0400	300	2.504	11/18/11 4:00	0.008347	291
2011-11-18-0500	300	2.543	11/18/11 5:00	0.008477	292
2011-11-18-0600	500	6.635	11/18/11 6:00	0.01327	293
2011-11-18-0700	400 125	-3.508	11/18/11 7:00	-0.00877	294
2011-11-18-0800 2011-11-18-0900	200	-2.997 -5.607	11/18/11 8:00 11/18/11 9:00	-0.02398	295
2011-11-18-1000	300	-3.607 -8.56	11/18/11 10:00	-0.02804 -0.02853	296 297
2011-11-18-1100	550	-3.283	11/18/11 10:00	-0.02833	297
2011-11-18-1200	355	-4.626	11/18/11 12:00	-0.00397	298
2011-11-18-1200	419	3.764	11/18/11 12:00	0.008983	300
2011-11-18-1900	623	6.929	11/18/11 19:00	0.008983	301
2011-11-18-2000	550	6.567	11/18/11 19:00	0.011122	302
2011 11 10 2000	550	0.507	11/10/11 20:00	5.01177	202

2011-11-18-2100 500 7.182 11/18/11 21:00 0.01197 303 2011-11-18-2200 359 3.406 11/18/11 22:00 0.012024 304 305 2011-11-19-0100 300 2.108 11/19/11 0:00 0.007027 306 2011-11-19-0100 300 1.785 11/19/11 0:00 0.007027 306 2011-11-19-0100 500 3.767 11/19/11 0:00 0.007534 308 2011-11-19-0400 501 3.783 11/19/11 3:00 0.007531 309 2011-11-19-0400 505 3.607 11/19/11 3:00 0.007531 310 2011-11-19-0600 500 3.601 11/19/11 5:00 0.007202 311 2011-11-19-0600 500 3.234 11/19/11 5:00 0.007202 311 2011-11-19-0600 500 3.234 11/19/11 5:00 0.007202 311 2011-11-19-0600 765 7.611 11/19/11 8:00 0.009949 314 2011-11-19-0600 765 7.611 11/19/11 8:00 0.009949 314 2011-11-19-1000 762 8.2 11/19/11 1:00 0.009949 314 2011-11-19-1000 772 7.718 11/19/11 1:00 0.00997 317 2011-11-19-1000 300 1.078 11/19/11 1:00 0.00997 317 2011-11-19-1000 300 0.0999 11/19/11 1:00 0.00393 318 2011-11-19-1000 300 0.0999 11/19/11 1:00 0.00393 318 2011-11-19-1000 765 6.811 11/19/11 1:00 0.00393 318 2011-11-19-1000 765 6.811 11/19/11 1:00 0.00898 321 2011-11-19-1000 302 2.144 11/19/11 1:00 0.00898 321 2011-11-19-2000 608 5.073 11/19/11 1:00 0.008344 323 2011-11-19-1000 302 2.157 11/19/11 1:00 0.008565 334 2011-11-20-1000 302 2.157 11/19/11 1:00 0.006565 334 2011-11-20-1000 455 2.188 11/20/11 11:00 0.006440 332 2011-11-20-1000 455 2.188 11/20/11 11:00 0.006440 332 2011-11-20-2000 500 3.004 11/20/11 11:00 0.006489 338 2011-11-20-2000 503 3.004 11/20/11 11:00 0.006598 331 2011-11-20-2000 503 3.004 11/20/11 11:00 0.006598 334 2011-11-20-2000 503 3.004 11/20/11 11:00 0.006598 334 2011-11-20-2000 505 3.004 11/20/11 11:00 0.006598 334 2011-11-20-2000 505 3.004 11/20/11 11:00 0.006598 334 2011-11-20-2000 505	Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-11-19-0000 300 3.406 11/18/11 23:00 0.008536 305 2011-11-19-0100 300 1.785 11/19/11 1:00 0.007027 306 2011-11-19-0100 300 1.785 11/19/11 1:00 0.00595 307 307 2011-11-19-0400 505 3.667 11/19/11 3:00 0.007551 309 2011-11-19-0400 505 3.667 11/19/11 3:00 0.007143 310 2011-11-19-0600 500 3.601 11/19/11 6:00 0.007143 310 2011-11-19-0600 500 3.234 11/19/11 6:00 0.006468 312 2011-11-19-0600 501 3.501 11/19/11 7:00 0.006488 313 2011-11-19-0700 501 3.501 11/19/11 7:00 0.006988 313 2011-11-19-0900 765 7.611 11/19/11 8:00 0.009949 314 2011-11-19-0900 777 7.763 11/19/11 9:00 0.010761 316 2011-11-19-1000 762 8.2 11/19/11 1:00 0.003593 318 2011-11-19-1100 772 7.718 11/19/11 1:00 0.003593 318 2011-11-19-1000 497 1.721 11/19/11 1:00 0.003593 318 2011-11-19-1800 608 5.073 11/19/11 1:00 0.008908 321 2011-11-19-1000 765 6.811 11/19/11 1:00 0.008908 321 2011-11-19-2000 608 5.073 11/19/11 2:00 0.008304 322 2011-11-19-2000 302 1.577 11/19/11 2:00 0.006565 324 2011-11-20-100 404 -1.043 11/19/11 1:00 0.00322 325 2011-11-20-100 404 -1.043 11/20/11 1:00 0.00808 331 2011-11-20-200 500 3.004 11/20/11 2:00 0.006088 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 330 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 330 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 330 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 550 6.166 11/20/11 1:00 0.00539 334 2011-11-20-2000 550 6.166 11/20/	2011-11-18-2100	600	7.182	11/18/11 21:00	0.01197	303	
2011-11-19-0000 300 3.406 11/18/11 23:00 0.008536 305 2011-11-19-0100 300 1.785 11/19/11 1:00 0.007027 306 2011-11-19-0100 300 1.785 11/19/11 1:00 0.00595 307 307 2011-11-19-0400 505 3.667 11/19/11 3:00 0.007551 309 2011-11-19-0400 505 3.667 11/19/11 3:00 0.007143 310 2011-11-19-0600 500 3.601 11/19/11 6:00 0.007143 310 2011-11-19-0600 500 3.234 11/19/11 6:00 0.006468 312 2011-11-19-0600 501 3.501 11/19/11 7:00 0.006488 313 2011-11-19-0700 501 3.501 11/19/11 7:00 0.006988 313 2011-11-19-0900 765 7.611 11/19/11 8:00 0.009949 314 2011-11-19-0900 777 7.763 11/19/11 9:00 0.010761 316 2011-11-19-1000 762 8.2 11/19/11 1:00 0.003593 318 2011-11-19-1100 772 7.718 11/19/11 1:00 0.003593 318 2011-11-19-1000 497 1.721 11/19/11 1:00 0.003593 318 2011-11-19-1800 608 5.073 11/19/11 1:00 0.008908 321 2011-11-19-1000 765 6.811 11/19/11 1:00 0.008908 321 2011-11-19-2000 608 5.073 11/19/11 2:00 0.008304 322 2011-11-19-2000 302 1.577 11/19/11 2:00 0.006565 324 2011-11-20-100 404 -1.043 11/19/11 1:00 0.00322 325 2011-11-20-100 404 -1.043 11/20/11 1:00 0.00808 331 2011-11-20-200 500 3.004 11/20/11 2:00 0.006088 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 330 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 330 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 330 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 500 3.004 11/20/11 2:00 0.00608 331 2011-11-20-2000 550 6.166 11/20/11 1:00 0.00539 334 2011-11-20-2000 550 6.166 11/20/	2011-11-18-2200	550	6.613	11/18/11 22:00	0.012024	304	
2011-11-19-0100 300	2011-11-18-2300	399	3.406	11/18/11 23:00	0.008536	305	
2011-11-19-0200 500 3.767 11/19/11 2:00 0.007551 308 2011-11-19-0400 501 3.783 11/19/11 3:00 0.007551 309 2011-11-19-0400 505 3.607 11/19/11 3:00 0.007202 311 2011-11-19-0500 500 3.601 11/19/11 5:00 0.006468 312 2011-11-19-0700 501 3.501 11/19/11 5:00 0.006988 313 2011-11-19-0700 765 7.611 11/19/11 8:00 0.006988 313 2011-11-19-0700 765 7.611 11/19/11 8:00 0.009949 314 2011-11-19-000 762 8.2 11/19/11 1:00 0.010533 315 2011-11-19-1000 762 8.2 11/19/11 1:00 0.010761 316 2011-11-19-1000 772 7.718 11/19/11 1:00 0.009997 317 2011-11-19-1300 300 1.078 11/19/11 1:00 0.003533 318 2011-11-19-1300 300 0.969 11/19/11 1:00 0.003533 318 2011-11-19-1700 497 1.721 11/19/11 1:00 0.003463 320 2011-11-19-1900 676 6.811 11/19/11 1:00 0.008903 321 2011-11-19-2000 608 5.073 11/19/11 2:00 0.008903 322 2011-11-19-2000 608 5.073 11/19/11 2:00 0.005522 325 2011-11-20-1700 302 1.577 11/19/11 2:00 0.005522 325 2011-11-20-1800 455 2.188 11/20/11 1:00 0.006463 320 2011-11-20-1800 455 2.188 11/20/11 1:00 0.006408 330 2011-11-20-100 322 2.144 11/12/11 1:00 0.006655 324 2011-11-20-100 455 2.188 11/20/11 1:00 0.006608 330 2011-11-20-100 500 3.299 11/20/11 1:00 0.006608 330 2011-11-20-100 500 3.299 11/20/11 1:00 0.006608 330 2011-11-20-100 500 3.299 11/20/11 2:00 0.006008 330 2011-11-20-100 500 3.299 11/20/11 2:00 0.006008 331 2011-11-20-000 500 3.299 11/20/11 2:00 0.006008 330 2011-11-20-000 500 3.094 11/20/11 2:00 0.006008 331 2011-11-20-000 500 3.299 11/20/11 2:00 0.006008 331 2011-11-20-000 500 3.299 11/20/11 2:00 0.006008 331 2011-11-20-000 500 3.291 11/20/11 1:00 0.00611 340 340 341 341 341 341 341 341 341 341 341 341 341 341 341 341 341 341 341 341	2011-11-19-0000	300	2.108	11/19/11 0:00	0.007027	306	
2011-11-19-0300 501 3.783 11/19/11 3:00 0.007551 309 2011-11-19-0500 505 3.601 11/19/11 4:00 0.007143 310 2011-11-19-0500 500 3.601 11/19/11 6:00 0.006468 312 2011-11-19-0600 500 3.234 11/19/11 7:00 0.006988 313 2011-11-19-0800 765 7.611 11/19/11 7:00 0.006988 313 2011-11-19-0900 737 7.763 11/19/11 10:00 0.010761 316 2011-11-19-1000 762 8.2 11/19/11 10:00 0.010761 316 2011-11-19-1200 300 1.078 11/19/11 11:00 0.003297 317 2011-11-19-1200 300 1.078 11/19/11 11:00 0.003539 318 2011-11-19-1300 300 0.969 11/19/11 11:00 0.003463 320 2011-11-19-1800 764 6.181 11/19/11 11:00 0.003463 320 2011-11-19-2100 322 2.114 11/19/11 19:00	2011-11-19-0100	300	1.785	11/19/11 1:00	0.00595	307	
2011-11-19-0300 501 3.783 11/19/11 3:00 0.007551 309 2011-11-19-0500 505 3.601 11/19/11 4:00 0.007143 310 2011-11-19-0500 500 3.601 11/19/11 6:00 0.006468 312 2011-11-19-0600 500 3.234 11/19/11 7:00 0.006988 313 2011-11-19-0800 765 7.611 11/19/11 7:00 0.006988 313 2011-11-19-0900 737 7.763 11/19/11 10:00 0.010761 316 2011-11-19-1000 762 8.2 11/19/11 10:00 0.010761 316 2011-11-19-1200 300 1.078 11/19/11 11:00 0.003297 317 2011-11-19-1200 300 1.078 11/19/11 11:00 0.003539 318 2011-11-19-1300 300 0.969 11/19/11 11:00 0.003463 320 2011-11-19-1800 764 6.181 11/19/11 11:00 0.003463 320 2011-11-19-2100 322 2.114 11/19/11 19:00	2011-11-19-0200	500	3.767	11/19/11 2:00	0.007534	308	
2011-11-19-0400	2011-11-19-0300		3.783	11/19/11 3:00	0.007551	309	
2011-11-19-0500 500 3.601 11/19/11 5:00 0.007202 311 2011-11-19-0700 501 3.234 11/19/11 6:00 0.006468 312 2011-11-19-0700 501 3.501 11/19/11 7:00 0.006988 313 2011-11-19-0800 765 7.611 11/19/11 7:00 0.006988 313 2011-11-19-0800 775 7.763 11/19/11 9:00 0.010533 315 2011-11-19-1000 762 8.2 11/19/11 10:00 0.010761 316 2011-11-19-1000 772 7.718 11/19/11 10:00 0.010761 316 2011-11-19-1200 300 1.078 11/19/11 11:00 0.003593 318 2011-11-19-1300 300 0.0699 11/19/11 11:00 0.003593 318 2011-11-19-1300 300 0.0699 11/19/11 17:00 0.003593 318 2011-11-19-1300 300 0.0699 11/19/11 17:00 0.003593 319 2011-11-19-1000 764 6.187 11/19/11 17:00 0.003663 320 2011-11-19-2000 608 5.073 11/19/11 20:00 0.008908 321 2011-11-19-2000 608 5.073 11/19/11 20:00 0.008503 322 2011-11-20-100 322 2.114 11/19/11 21:00 0.006565 324 2011-11-20-1100 104 -1.043 11/20/11 11:00 0.006565 324 2011-11-20-1100 455 2.188 11/20/11 11:00 0.006489 328 2011-11-20-1900 455 2.188 11/20/11 11:00 0.006403 320 2011-11-20-2000 500 3.004 11/20/11 12:00 0.006088 331 2011-11-20-2000 500 3.094 11/20/11 12:00 0.006088 331 2011-11-20-2000 500 3.094 11/20/11 12:00 0.006088 331 2011-11-20-2000 503 3.299 11/20/11 20:00 0.00608 333 2011-11-20-2000 503 3.1123 11/21/11 20:00 0.006088 333 2011-11-20-2000 503 3.1123 11/21/11 11:00 0.005396 334 2011-11-20-2000 505 3.1123 11/21/11 11:00 0.005396 334 2011-11-20-2000 503 3.123 11/21/11 11:00 0.005396 334 2011-11-20-2000 575 7.113 11/22/11 11:00 0.005396 334 2011-11-20-2000 575 7.113 11/22/11 11:00 0.005397 349 2011-11-20-1000 575 7.113 11/22/11 11:00 0.00537 342 2011-11-20-1000 575 7.113 11/22/11 11:00 0.005373 346 2011-11-22-1000 553 3.638 11/22/11 11:00 0.005573 347 2	2011-11-19-0400	505	3.607	11/19/11 4:00	0.007143		
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2011-11-19-0700 501 3.501 11/19/11 7:00 0.006988 313 2011-11-19-0800 765 7.611 11/19/11 8:00 0.009949 314 2011-11-19-0900 737 7.763 11/19/11 10:00 0.010533 315 2011-11-19-1000 762 8.2 11/19/11 10:00 0.010761 316 2011-11-19-1000 300 1.078 11/19/11 11:00 0.009997 317 2011-11-19-1200 300 0.969 11/19/11 13:00 0.003593 318 2011-11-19-1300 300 0.969 11/19/11 13:00 0.003593 318 2011-11-19-1400 764 6.187 11/19/11 17:00 0.003463 320 2011-11-19-1400 765 6.811 11/19/11 19:00 0.008908 321 2011-11-19-1400 322 2.114 11/19/11 19:00 0.008903 322 2011-11-19-2000 608 5.073 11/19/11 20:00 0.008544 323 2011-11-19-2000 302 1.577 11/19/11 20:00 0.006565 324 2011-11-19-2000 302 1.577 11/19/11 20:00 0.006565 324 2011-11-20-1100 322 2.114 11/19/11 11:00 0.00522 325 2011-11-20-1100 300 0.72 11/20/11 18:00 0.006522 325 2011-11-20-1800 455 2.188 11/20/11 18:00 0.006409 328 2011-11-20-2000 500 3.004 11/20/11 18:00 0.006409 328 2011-11-20-2100 500 3.004 11/20/11 12:00 0.006080 330 2011-11-20-2100 500 3.004 11/20/11 20:00 0.006080 330 2011-11-20-2100 500 3.004 11/20/11 20:00 0.006098 331 2011-11-20-2000 503 3.04 11/20/11 12:00 0.006598 333 2011-11-20-2000 503 3.123 11/21/11 8:00 0.006398 333 2011-11-20-1000 665 0.294 11/21/11 8:00 0.006398 333 2011-11-20-1000 503 1.123 11/21/11 8:00 0.006398 333 2011-11-20-2000 550 6.66 11/22/11 8:00 0.006593 334 2011-11-20-2000 550 6.66 11/22/11 18:00 0.006593 334 2011-11-20-2000 550 6.66 11/22/11 18:00 0.006593 334 2011-11-20-1000 555 6.166 11/22/11 18:00 0.006593 334 2011-11-20-1000 553 2.866 11/22/11 18:00 0.006573 345 2011-11-22-1000 553 3.638 11/22/11 11:00 0.006577 349 2011-11-22-1000 553 3.394 11/22/11 11:00 0.006577 349 2011-11-22-1	2011-11-19-0600		3.234	11/19/11 6:00	0.006468	312	
2011-11-19-0800	2011-11-19-0700		3.501	11/19/11 7:00		313	
2011-11-19-1000	2011-11-19-0800	765	7.611	11/19/11 8:00	0.009949	314	
2011-11-19-1100	2011-11-19-0900	737	7.763	11/19/11 9:00	0.010533	315	
2011-11-19-1100	2011-11-19-1000	762	8.2	11/19/11 10:00	0.010761	316	
2011-11-19-1300 300 0.969 11/19/11 13:00 0.00323 319 2011-11-19-1700 497 1.721 11/19/11 18:00 0.003463 320 2011-11-19-1800 764 6.187 11/19/11 18:00 0.008908 321 2011-11-19-1900 765 6.811 11/19/11 18:00 0.008903 322 2011-11-19-2100 322 2.114 11/19/11 20:00 0.008344 323 2011-11-20-100 322 2.114 11/19/11 20:00 0.006565 324 2011-11-20-1100 104 -1.043 11/20/11 11:00 -0.0103 326 2011-11-20-1700 300 0.72 11/20/11 11:00 -0.0103 326 2011-11-20-1800 455 2.188 11/20/11 18:00 0.006112 329 2011-11-20-2000 500 3.044 11/20/11 19:00 0.006112 329 2011-11-20-2000 500 3.049 11/20/11 20:00 0.006088 331 2011-11-21-0600 300 1.194 11/20/11 20:00	2011-11-19-1100	772	7.718	11/19/11 11:00	0.009997	317	
2011-11-19-1700	2011-11-19-1200			11/19/11 12:00	0.003593	318	
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2011-11-22-1100 554 6.951 11/22/11 11:00 0.012547 343 2011-11-22-1200 550 3.394 11/22/11 12:00 0.006171 344 2011-11-22-1300 553 2.806 11/22/11 13:00 0.005074 345 2011-11-22-1400 650 3.725 11/22/11 14:00 0.005731 346 2011-11-22-1500 600 3.764 11/22/11 15:00 0.006273 347 2011-11-22-1600 553 2.771 11/22/11 16:00 0.005011 348 2011-11-22-1700 553 3.638 11/22/11 17:00 0.006579 349 2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069	2011-11-22-0900	550	6.166	11/22/11 9:00	0.011211	341	
2011-11-22-1200 550 3.394 11/22/11 12:00 0.006171 344 2011-11-22-1300 553 2.806 11/22/11 13:00 0.005074 345 2011-11-22-1400 650 3.725 11/22/11 14:00 0.005731 346 2011-11-22-1500 600 3.764 11/22/11 15:00 0.006273 347 2011-11-22-1600 553 2.771 11/22/11 16:00 0.005011 348 2011-11-22-1700 553 3.638 11/22/11 17:00 0.006579 349 2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2300 308 3.063 11/22/11 22:00 0.011707 354 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051	2011-11-22-1000	575	7.113	11/22/11 10:00	0.01237	342	
2011-11-22-1300 553 2.806 11/22/11 13:00 0.005074 345 2011-11-22-1400 650 3.725 11/22/11 14:00 0.005731 346 2011-11-22-1500 600 3.764 11/22/11 15:00 0.006273 347 2011-11-22-1600 553 2.771 11/22/11 16:00 0.005011 348 2011-11-22-1700 553 3.638 11/22/11 17:00 0.006579 349 2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2300 552 6.462 11/22/11 22:00 0.011707 354 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00	2011-11-22-1100	554	6.951	11/22/11 11:00	0.012547	343	
2011-11-22-1400 650 3.725 11/22/11 14:00 0.005731 346 2011-11-22-1500 600 3.764 11/22/11 15:00 0.006273 347 2011-11-22-1600 553 2.771 11/22/11 16:00 0.005011 348 2011-11-22-1700 553 3.638 11/22/11 17:00 0.006579 349 2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2300 552 6.462 11/22/11 22:00 0.011707 354 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1200	550	3.394	11/22/11 12:00	0.006171	344	
2011-11-22-1500 600 3.764 11/22/11 15:00 0.006273 347 2011-11-22-1600 553 2.771 11/22/11 16:00 0.005011 348 2011-11-22-1700 553 3.638 11/22/11 17:00 0.006579 349 2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2300 552 6.462 11/22/11 22:00 0.011707 354 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1300	553	2.806	11/22/11 13:00	0.005074	345	
2011-11-22-1600 553 2.771 11/22/11 16:00 0.005011 348 2011-11-22-1700 553 3.638 11/22/11 17:00 0.006579 349 2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2200 552 6.462 11/22/11 22:00 0.011707 354 2011-11-22-3000 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1400	650	3.725	11/22/11 14:00	0.005731	346	
2011-11-22-1700 553 3.638 11/22/11 17:00 0.006579 349 2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2200 552 6.462 11/22/11 22:00 0.011707 354 2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1500	600	3.764	11/22/11 15:00	0.006273	347	
2011-11-22-1800 675 2.6 11/22/11 18:00 0.003852 350 2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2200 552 6.462 11/22/11 22:00 0.011707 354 2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1600	553	2.771	11/22/11 16:00	0.005011	348	
2011-11-22-1900 600 0.944 11/22/11 19:00 0.001573 351 2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2200 552 6.462 11/22/11 22:00 0.011707 354 2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1700	553	3.638	11/22/11 17:00	0.006579	349	
2011-11-22-2000 375 2.381 11/22/11 20:00 0.006349 352 2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2200 552 6.462 11/22/11 22:00 0.011707 354 2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1800	675	2.6	11/22/11 18:00	0.003852	350	
2011-11-22-2100 353 3.944 11/22/11 21:00 0.011173 353 2011-11-22-2200 552 6.462 11/22/11 22:00 0.011707 354 2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-1900	600	0.944	11/22/11 19:00	0.001573	351	
2011-11-22-2200 552 6.462 11/22/11 22:00 0.011707 354 2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-2000	375	2.381	11/22/11 20:00	0.006349	352	
2011-11-22-2300 308 3.063 11/22/11 23:00 0.009945 355 2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-2100	353	3.944	11/22/11 21:00	0.011173	353	
2011-11-23-0000 277 2.069 11/23/11 0:00 0.007469 356 2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357	2011-11-22-2200	552	6.462		0.011707	354	
2011-11-23-0600 300 1.051 11/23/11 6:00 0.003503 357							
	2011-11-23-0000	277	2.069		0.007469	356	
0.44 44 03 0800 340 4 080 4 080							
2011-11-23-0700 349 1.878 11/23/11 7:00 0.005381 358	2011-11-23-0700	349	1.878	11/23/11 7:00	0.005381	358	

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Hour	OSS	Inc Loss	Date-Time	% Losses	0.45%
2011-11-23-0800	298	1.663	11/23/11 8:00	0.005581	359
2011-11-23-0900	699	5.947	11/23/11 9:00	0.008508	360
2011-11-23-1000	600	5.898	11/23/11 10:00	0.00983	361
2011-11-23-1100	621	7.04	11/23/11 11:00	0.011337	362
2011-11-23-1200	570	0.262	11/23/11 12:00	0.00046	363
2011-11-23-1300	555	0.99	11/23/11 13:00	0.001784	364
2011-11-23-1400	601	5.781	11/23/11 14:00	0.009619	365
2011-11-23-1500	500	5.475	11/23/11 15:00	0.01095	366
2011-11-23-1600	310	3.092	11/23/11 16:00	0.009974	367
2011-11-23-1700	316	3.008	11/23/11 17:00	0.009519	368
2011-11-23-1800	610	6.106	11/23/11 18:00	0.01001	369
2011-11-23-1900	596	6.156	11/23/11 19:00	0.010329	370
2011-11-23-2000	583	5.962	11/23/11 20:00	0.010226	371
2011-11-23-2100	551	5.737	11/23/11 21:00	0.010412	372
2011-11-23-2200	547	6,474	11/23/11 22:00	0.011835	373
2011-11-23-2300	300	3.41	11/23/11 23:00	0.011367	374
2011-11-24-0900	300	2.247	11/24/11 9:00	0.00749	375
2011-11-24-1000	300	2.57	11/24/11 10:00	0.008567	376
2011-11-24-1000	400	3.98	11/24/11 11:00	0.00995	377
2011-11-24-1100	400	4.076	11/24/11 12:00	0.00555	378
	300	2.418	11/24/11 12:00	0.01019	379
2011-11-24-1300 2011-11-25-0800			11/25/11 8:00		380
	149	0.534		0.003584	
2011-11-25-0900	149	0.834	11/25/11 9:00	0.005597	381
2011-11-25-1800	394	2.017	11/25/11 18:00	0.005119	382
2011-11-25-1900	397	2.671	11/25/11 19:00	0.006728	383
2011-11-25-2000	400	2.6	11/25/11 20:00	0.0065	384
2011-11-26-2300	105	0.973	11/26/11 23:00	0.009267	385
2011-11-27-1800	300	1.971	11/27/11 18:00	0.00657	386
2011-11-27-1900	200	1.407	11/27/11 19:00	0.007035	387
2011-11-27-2000	150	1.685	11/27/11 20:00	0.011233	388
2011-11-27-2100	300	3.033	11/27/11 21:00	0.01011	389
2011-11-27-2200	300	2.839	11/27/11 22:00	0.009463	390
2011-11-28-0700	117	-1.081	11/28/11 7:00	-0.00924	391
2011-11-28-1000	100	-2.082	11/28/11 10:00	-0.02082	392
2011-11-28-1100	100	-2.066	11/28/11 11:00	-0.02066	393
2011-11-28-1200	150	-2.689	11/28/11 12:00	-0.01793	394
2011-11-28-1300	300	-1.291	11/28/11 13:00	-0.0043	395
2011-11-28-1400	450	0.601	11/28/11 14:00	0.001336	396
2011-11-28-1500	600	2.223	11/28/11 15:00	0.003705	397
2011-11-28-1600	600	2.404	11/28/11 16:00	0.004007	398
2011-11-28-1700	500	2.763	11/28/11 17:00	0.005526	399
2011-11-28-1800	300	0.072	11/28/11 18:00	0.00024	400
2011-11-28-1900	491	1.265	11/28/11 19:00	0.002576	401
2011-11-28-2000	450	3.474	11/28/11 20:00	0.00772	402
2011-11-28-2100	603	7.786	11/28/11 21:00	0.012912	403
2011-11-28-2200	600	7.395	11/28/11 22:00	0.012325	404
2011-11-28-2300	600	6.48	11/28/11 23:00	0.0108	405
2011-11-29-0000	200	2.293	11/29/11 0:00	0.011465	406
2011-11-29-0100	155	1.626	11/29/11 1:00	0.01049	407
2011-11-29-0200	155	1.404	11/29/11 2:00	0.009058	408
2011-11-29-0300	155	1.531	11/29/11 3:00	0.009877	409
2011-11-29-0400	155	1.548	11/29/11 4:00	0.009987	410
2011-11-29-0500	155	1.74	11/29/11 5:00	0.011226	411
2011-11-29-0600	455	5.469	11/29/11 6:00	0.01202	412
2011-11-29-0000	655	7.615	11/29/11 7:00	0.01202	413
2011-11-29-0700	638	0.092	11/29/11 7:00	0.000144	414
2011-11-27-000U	036	0.092	11/29/11 0.00	0.000174	717

LGEE Hourly Incremental Losses Average Incremental OSS 0.45% Hour Inc Loss Date-Time % Losses Loss Factor 2011-11-29-0900 600 -1.03611/29/11 9:00 -0.00173 415 2011-11-29-1000 500 -1.24911/29/11 10:00 -0.0025 416 2011-11-29-1100 600 -0.85211/29/11 11:00 -0.00142 417 600 2011-11-29-1200 -1.14611/29/11 12:00 -0.00191 418 2011-11-29-1300 600 -1.235-0.00206 419 11/29/11 13:00 600 -1.049 2011-11-29-1400 11/29/11 14:00 -0.00175 420 2011-11-29-1500 600 -0.81111/29/11 15:00 -0.00135 421 2011-11-29-1600 600 -0.733 11/29/11 16:00 -0.00122 422 2011-11-29-1700 600 -0.83611/29/11 17:00 -0.00139 423 375 -0.00977 2011-11-29-1800 -3.662 11/29/11 18:00 424 300 -4.192 -0.01397 2011-11-29-1900 11/29/11 19:00 425 2011-11-29-2000 300 -4.428 11/29/11 20:00 -0.01476 426 2011-11-29-2100 300 -4.32911/29/11 21:00 -0.01443 427 2011-11-29-2200 300 -4.151 11/29/11 22:00 -0.01384 428 450 11/29/11 23:00 2011-11-29-2300 -2.038-0.00453429 591 2011-11-30-0000 4.164 11/30/11 0:00 0.007046 430 2011-11-30-0100 300 2.089 0.006963 11/30/11 1:00 431 2011-11-30-0200 300 2.46 0.0082 432 11/30/11 2:00 2011-11-30-0300 600 11/30/11 3:00 0.009397 5.638 433 625 2011-11-30-0400 6.521 11/30/11 4:00 0.010434 434 2011-11-30-0500 625 6.043 0.009669 435 11/30/11 5:00 2011-11-30-0600 629 6.221 11/30/11 6:00 0.00989 436 400 2011-11-30-0700 3.385 11/30/11 7:00 0.008463 437 200 1.496 2011-11-30-0800 11/30/11 8:00 0.00748 438 2011-11-30-0900 200 1.29 11/30/11 9:00 0.00645 439 350 11/30/11 10:00 -0.00249 2011-11-30-1000 -0.872440 2011-11-30-1100 350 -1.311 11/30/11 11:00 -0.00375 441 -0.00256 2011-11-30-1200 345 -0.88211/30/11 12:00 442 2011-11-30-1300 350 -0.4711/30/11 13:00 -0.00134443 2011-11-30-1400 473 11/30/11 14:00 0.001801 0.852 444 2011-11-30-1500 448 3.954 11/30/11 15:00 0.008826 445 475 2.901 11/30/11 16:00 0.006107 2011-11-30-1600 446 450 11/30/11 17:00 0.008976 2011-11-30-1700 4.039 447 2011-11-30-1800 542 3.678 11/30/11 18:00 0.006786 448 2011-11-30-1900 547 -1.30811/30/11 19:00 -0.00239 449 2011-11-30-2000 550 -2.73811/30/11 20:00 -0.00498 450 2011-11-30-2100 599 -5.43 -0.00907 451 11/30/11 21:00 2011-11-30-2200 600 -4.327 11/30/11 22:00 -0.00721452 2011-11-30-2300 500 -4.595 11/30/11 23:00 -0.00919 453 2011-12-01-0000 339 -6.676 12/1/11 0:00 -0.01969 1 453 206,075 1.787 338 -1.95-0.00577 2 0.867% 2011-12-01-0100 12/1/11 1:00 455 3.946 150 0.00704 2011-12-01-0200 1.056 12/1/11 2:00 3 2011-12-01-0300 165 2.006 12/1/11 3:00 0.012158 4 2011-12-01-0400 150 1.866 12/1/11 4:00 0.01244 5 2011-12-01-0500 150 1.808 12/1/11 5:00 0.012053 6 200 12/1/11 6:00 7 2011-12-01-0600 2.661 0.013305 2011-12-01-0700 150 -3.22512/1/11 7:00 -0.02158 2011-12-01-1000 150 -2.76612/1/11 10:00 -0.01844 9 225 10 2011-12-01-1100 -1.31812/1/11 11:00 -0.00586 2011-12-01-1800 543 12/1/11 18:00 0.004959 11 2.693 627 12/1/11 19:00 0.007292 12 2011-12-01-1900 4.572 2011-12-01-2000 605 4.229 12/1/11 20:00 0.00699 13 2011-12-01-2100 664 6.703 12/1/11 21:00 0.010095 14

12/1/11 22:00 0.010976

12/1/11 23:00 0.011284

12/2/11 0:00 0.012241

15

16

17

2011-12-01-2200

2011-12-01-2300

2011-12-02-0000

696

737

738

7.639

8.316

9.034

Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-12-02-0100	662	7.787	12/2/11 1:00	0.011763	18	011070
2011-12-02-0200	615	7.367	12/2/11 2:00	0.011979	19	
2011-12-02-0300	673	8.03	12/2/11 3:00	0.011932	20	
2011-12-02-0400	670	8.336	12/2/11 4:00	0.012442	21	
2011-12-02-0500	733	9.145	12/2/11 5:00	0.012476	22	
2011-12-02-0600	624	7.551	12/2/11 6:00	0.012101	23	
2011-12-02-0700	490	5.302	12/2/11 7:00	0.01082	24	
2011-12-02-0800	287	-3.061	12/2/11 8:00	-0.01067	25	
2011-12-02-0900	175	-3.901	12/2/11 9:00	-0.02229	26	
2011-12-02-1000	173	-2.23	12/2/11 10:00	-0.01297	27	
2011-12-02-1100	414	3.473	12/2/11 11:00	0.008389	28	
2011-12-02-1100	114	-0.266	12/2/11 12:00	-0.00233	29	
2011-12-02-1200	580	4.486	12/2/11 18:00	0.007734	30	
2011-12-02-1900	800	7.018	12/2/11 19:00	0.008773	31	
2011-12-02-1900	800	6.599	12/2/11 20:00	0.008249	32	
2011-12-02-2000	790	7.65	12/2/11 21:00	0.009684	33	
2011-12-02-2100	303	2.413	12/2/11 22:00	0.007964	34	
2011-12-02-2300	400	3.871	12/2/11 23:00	0.009678	35	
2011-12-03-0000	390	4.816	12/3/11 0:00	0.012349	36	
2011-12-03-0000	249	1.636	12/3/11 3:00	0.00657	37	
2011-12-03-0300	449	4,208	12/3/11 4:00	0.009372	38	
2011-12-03-0400	349	2.919	12/3/11 5:00	0.003372	39	
2011-12-03-0500	445	4.292	12/3/11 6:00	0.009645	40	
2011-12-03-0000	445	4.437	12/3/11 7:00	0.009971	41	
2011-12-03-0700	446	4.521	12/3/11 7:00	0.010137	42	
2011-12-03-0800	495	5.407	12/3/11 9:00	0.010137	43	
2011-12-03-0900	496	5.575	12/3/11 10:00	0.010323	44	
2011-12-03-1000	499	5.626	12/3/11 11:00	0.01124	45	
2011-12-03-1100	649	7.593	12/3/11 11:00	0.011273	46	
2011-12-03-1200	200	0.537	12/3/11 13:00	0.002685	47	
2011-12-03-1300	499	4.268	12/3/11 18:00	0.002553	48	
2011-12-03-1800	499	4.551	12/3/11 19:00	0.00912	49	
2011-12-03-1900	699	6.435	12/3/11 10:00	0.009206	50	
2011-12-03-2100	549	5.022	12/3/11 21:00	0.009148	51	
2011-12-03-2100	499	4.444	12/3/11 22:00	0.008906	52	
2011-12-03-2200	499	4.71	12/3/11 23:00	0.009439	53	
2011-12-03-2500	474	4,394	12/4/11 0:00	0.00927	54	
2011-12-04-0600	399	3.252	12/4/11 6:00	0.00815	55	
2011-12-04-0700	400	3.467	12/4/11 7:00	0.008668	56	
2011-12-04-0800	150	0.141	12/4/11 8:00	0.00094	57	
2011-12-04-0900	200	0.636	12/4/11 9:00	0.00318	58	
2011-12-04-1000	100	-0.256	12/4/11 10:00	-0.00256	59	
2011-12-04-1700	500	2.439	12/4/11 17:00	0.004878	60	
2011-12-04-1800	725	4.464	12/4/11 18:00	0.006157	61	
2011-12-04-1900	800	6.283	12/4/11 19:00	0.007854	62	
2011-12-04-2000	800	6.744	12/4/11 20:00	0.00843	63	
2011-12-04-2100	506	3.969	12/4/11 21:00	0.007844	64	
2011-12-04-2200	506	3.655	12/4/11 22:00	0.007223	65	
2011-12-04-2300	380	2.194	12/4/11 23:00	0.005774	66	
2011-12-05-0700	450	2.023	12/5/11 7:00	0.004496	67	
2011-12-05-0800	500	3.801	12/5/11 8:00	0.007602	68	
2011-12-05-0900	579	3.898	12/5/11 9:00	0.006732	69	
2011-12-05-1000	602	4.168	12/5/11 10:00	0.006924	70	
2011-12-05-1100	503	3.663	12/5/11 11:00	0.007282	71	
2011-12-05-1200	503	3.534	12/5/11 12:00	0.007026	72	
2011-12-05-1800	278	-6.146	12/5/11 18:00	-0.02211	73	
	2,0	5.2.0				

Hour	OSS	Inc Loss	Date-Time	% Losses		0.45%
2011-12-05-1900	303	-7.17	12/5/11 19:00	-0.02366	74	01.670
2011-12-05-2000	203	-4.344	12/5/11 20:00	-0.0214	75	
2011-12-06-1800	153	-3.196	12/6/11 18:00	-0.02089	76	
2011-12-06-1900	153	-4.107	12/6/11 19:00	-0.02684	77	
2011-12-06-2000	253	-2.693	12/6/11 20:00	-0.01064	78	
2011-12-06-2100	203	-0.218	12/6/11 21:00	-0.00107	79	
2011-12-06-2200	303	0.455	12/6/11 22:00	0.001502	80	
2011-12-07-0700	529	-1.815	12/7/11 7:00	-0.00343	81	
2011-12-07-0800	404	-6.516	12/7/11 8:00	-0.01613	82	
2011-12-07-0900	403	-5.726	12/7/11 9:00	-0.01421	83	
2011-12-07-1000	303	0.974	12/7/11 10:00	0.003215	84	
2011-12-07-1000	304	1.112	12/7/11 11:00	0.003658	85	
2011-12-07-1100	303	1.24	12/7/11 12:00	0.004092	86	
2011-12-07-1300	303	1.306	12/7/11 13:00	0.00431	87	
2011-12-07-1400	229	0.066	12/7/11 14:00	0.000288	88	
2011-12-07-1500	305	1.238	12/7/11 15:00	0.004059	89	
2011-12-07-1600	305	0.944	12/7/11 16:00	0.003095	90	
2011-12-07-1700	455	-1.343	12/7/11 17:00	-0.00295	91	
2011-12-07-1700	301	- 4.29	12/7/11 17:00	-0.01425	92	
2011-12-07-1900	305	-4.212	12/7/11 19:00	-0.01381	93	
2011-12-07-1900	296	-4.307	12/7/11 19:00	-0.01351	94	
2011-12-07-2000	355	-3.044	12/7/11 21:00	-0.00857	95	
2011-12-07-2100	205	-3.152	12/7/11 22:00	-0.01538	96	
2011-12-07-2300	301	-0.833	12/7/11 23:00	-0.00277	97	
2011-12-07-2300	505	-0.189	12/8/11 0:00	-0.00037	98	
2011-12-08-0000	205	-1.298	12/8/11 1:00	-0.00633	99	
2011-12-08-0100	506	5.366	12/8/11 6:00	0.010605	100	
2011-12-08-0000	555	0.835	12/8/11 7:00	0.001505	101	
2011-12-08-0700	405	-7.475	12/8/11 8:00	-0.01846	102	
2011-12-08-0900	355	-7.583	12/8/11 9:00	-0.02136	103	
2011-12-08-0900	405	-3.871	12/8/11 10:00	-0.00956	104	
2011-12-08-1000	268	1.809	12/8/11 11:00	0.00675	105	
2011-12-08-1100	356	2.127	12/8/11 12:00	0.005975	106	
2011-12-08-1300	269	1.514	12/8/11 13:00	0.005628	107	
2011-12-08-1500	105	-0.194	12/8/11 15:00	-0.00185	108	
2011-12-08-1600	105	-0.411	12/8/11 16:00	-0.00391	109	
2011-12-08-1000	368	1.7	12/8/11 17:00	0.00462	110	
2011-12-08-1700	668	3.972	12/8/11 18:00	0.005946	111	
2011-12-08-1900	668	3.449	12/8/11 19:00	0.005163	112	
2011-12-08-2000	668	2.981	12/8/11 20:00	0.004463	113	
2011-12-08-2100	752	1.122	12/8/11 21:00	0.001492	114	
2011-12-08-2200	541	4.002	12/8/11 22:00	0.007397	115	
2011-12-08-2300	360	2.337	12/8/11 23:00	0.006492	116	
2011-12-09-0000	400	3.335	12/9/11 0:00	0.008338	117	
2011-12-09-0100	214	0.949	12/9/11 1:00	0.004435	118	
2011-12-09-0200	211	0.934	12/9/11 2:00	0.004427	119	
2011-12-09-0300	211	0.708	12/9/11 3:00	0.003355	120	
2011-12-09-0400	212	0.925	12/9/11 4:00	0.004363	121	
2011-12-09-0500	283	1.569	12/9/11 5:00	0.005544	122	
2011-12-09-0600	383	1.821	12/9/11 6:00	0.004755	123	
2011-12-09-0700	814	-3.397	12/9/11 7:00	-0.00417	124	
2011-12-09-0800	585	-9.011	12/9/11 8:00	-0.0154	125	
2011-12-09-0900	480	-8.999	12/9/11 9:00	-0.01875	126	
2011-12-09-1000	413	2.607	12/9/11 10:00	0.006312	127	
2011-12-09-1100	413	3.384	12/9/11 11:00	0.008194	128	
2011-12-09-1200	365	1.737	12/9/11 12:00	0.004759	129	
	200	2				

Hour	oss	Inc Loss	Date-Time	% Losses		0.45%
2011-12-09-1300	364	1.166	12/9/11 13:00	0.003203	130	
2011-12-09-1800	555	1.556	12/9/11 18:00	0.002804	131	
2011-12-09-1900	726	3.859	12/9/11 19:00	0.005315	132	
2011-12-09-2000	668	3.77	12/9/11 20:00	0.005644	133	
2011-12-09-2100	368	0.872	12/9/11 21:00	0.00237	134	
2011-12-09-2200	368	1.483	12/9/11 22:00	0.00403	135	
2011-12-09-2300	368	2.235	12/9/11 23:00	0.006073	136	
2011-12-10-0000	105	-0.396	12/10/11 0:00	-0.00377	137	
2011-12-10-0600	305	2.105	12/10/11 6:00	0.006902	138	
2011-12-10-0700	305	3.06	12/10/11 7:00	0.010033	139	
2011-12-10-0800	207	1.743	12/10/11 8:00	0.00842	140	
2011-12-10-0900	109	1.062	12/10/11 9:00	0.009743	141	
2011-12-10-1300	107	1.009	12/10/11 13:00	0.00943	142	
2011-12-10-1900	314	3.323	12/10/11 19:00	0.010583	143	
2011-12-10-2000	333	3.658	12/10/11 20:00	0.010985	144	
2011-12-10-2100	314	3.844	12/10/11 21:00	0.012242	145	
2011-12-10-2200	314	3.929	12/10/11 22:00	0.012513	146	
2011-12-10-2300	404	5.452	12/10/11 23:00	0.013495	147	
2011-12-11-0000	312	4.155	12/11/11 0:00	0.013317	148	
2011-12-11-0100	211	3.311	12/11/11 1:00	0.015692	149	
2011-12-11-0200	211	3.76	12/11/11 2:00	0.01782	150	
2011-12-11-0400	154	2.672	12/11/11 4:00	0.017351	151	
2011-12-11-0500	155	1.755	12/11/11 5:00	0.011323	152	
2011-12-11-0600	105	1.437	12/11/11 6:00	0.013686	153	
2011-12-11-0700	230	3.916	12/11/11 7:00	0.017026	154	
2011-12-11-0800	329	2.854	12/11/11 8:00	0.008675	155	
2011-12-11-0900	317	-1.893	12/11/11 9:00	-0.00597	156	
2011-12-11-1000	300	-1.491	12/11/11 10:00	-0.00497	157	
2011-12-11-1100	300	6.056	12/11/11 11:00	0.020187	158	
2011-12-11-1800	487	5.936	12/11/11 18:00	0.012189	159	
2011-12-11-1900	487	4.99	12/11/11 19:00	0.010246	160	
2011-12-11-2000	475	1.881	12/11/11 20:00	0.00396	161	
2011-12-11-2100	475	1.86	12/11/11 21:00	0.003916	162	
2011-12-11-2200	300	-0.435	12/11/11 22:00	-0.00145	163	
2011-12-11-2300	286	3.981	12/11/11 23:00	0.01392	164	
2011-12-12-0000	150	2.367	12/12/11 0:00	0.01578	165	
2011-12-12-0600	102	1.599	12/12/11 6:00	0.015676	166	
2011-12-12-0700	100	-0.991	12/12/11 7:00	-0.00991	167	
2011-12-12-0900	138	-3.265	12/12/11 9:00	-0.02366	168	
2011-12-12-1000	150	-2.93	12/12/11 10:00	-0.01953	169	
2011-12-12-1200	150	-1.769	12/12/11 12:00	-0.01179	170	
2011-12-12-1800	400	2.733	12/12/11 18:00	0.006833	171	
2011-12-12-1900	300	-0.279	12/12/11 19:00	-0.00093	172	
2011-12-12-2000	250	-0.844	12/12/11 20:00	-0.00338	173	
2011-12-12-2100	425	-0.23	12/12/11 21:00	-0.00054	174	
2011-12-12-2200	300	-3.032	12/12/11 22:00	-0.01011	175	
2011-12-12-2300	352	3.394	12/12/11 23:00	0.009642	176	
2011-12-13-0600	106	0.805	12/13/11 6:00	0.007594	177	
2011-12-13-0700	563	5.226	12/13/11 7:00	0.009282	178	
2011-12-13-0800	550	6.209	12/13/11 8:00	0.011289	179	
2011-12-13-0900	324	3.732	12/13/11 9:00	0.011519	180	
2011-12-13-1000	323	3.986	12/13/11 10:00	0.012341	181	
2011-12-13-1100	122	1.151	12/13/11 11:00	0.009434	182	
2011-12-13-1800	517	5.205	12/13/11 18:00	0.010068	183	
2011-12-13-1900	642	6.753	12/13/11 19:00	0.010519	184	
2011-12-13-2000	315	3.633	12/13/11 20:00	0.011533	185	

Hour	OSS	Inc Loss	Date-Time	% Losses	0.45%
2011-12-13-2100	164	1.945	12/13/11 21:00	0.01186	186
2011-12-13-2200	164	1.808	12/13/11 22:00	0.011024	187
2011-12-14-0700	307	3.429	12/14/11 7:00	0.011169	188
2011-12-14-0800	607	8.407	12/14/11 8:00	0.01385	189
2011-12-14-0900	355	4.558	12/14/11 9:00	0.012839	190
2011-12-14-1000	104	1.427	12/14/11 10:00	0.013721	191
2011-12-14-1100	304	3.529	12/14/11 11:00	0.011609	192
2011-12-14-1200	304	3.61	12/14/11 12:00	0.011875	193
2011-12-14-1300	104	1.228	12/14/11 13:00	0.011808	194
2011-12-14-1600	104	1.135	12/14/11 16:00	0.010913	195
2011-12-14-1700	104	1.009	12/14/11 17:00	0.009702	196
2011-12-14-1800	479	5.051	12/14/11 18:00	0.010545	197
2011-12-14-1900	504	5.808	12/14/11 19:00	0.011524	198
2011-12-14-2000	304	3.61	12/14/11 20:00	0.011875	199
2011-12-14-2100	304	3.572	12/14/11 21:00	0.01175	200
2011-12-15-0700	304	2.938	12/15/11 7:00	0.009664	201
2011-12-15-0800	309	3.634	12/15/11 8:00	0.011761	202
2011-12-15-0900	292	3.196	12/15/11 9:00	0.010945	203
2011-12-15-1300	139	0.92	12/15/11 13:00	0.006619	204
2011-12-15-1400	166	0.716	12/15/11 14:00	0.004313	205
2011-12-15-1500	216	1.521	12/15/11 15:00	0.007042	206
2011-12-15-1600	216	1.425	12/15/11 16:00	0.006597	207
2011-12-15-1700	216	2.44	12/15/11 17:00	0.011296	208
2011-12-15-1800	166	2.251	12/15/11 18:00	0.01356	209
2011-12-15-1900	116	1.493	12/15/11 19:00	0.012871	210
2011-12-15-2100	166	-0.704	12/15/11 21:00	-0.00424	211
2011-12-15-2200	216	0.066	12/15/11 22:00	0.000306	212
2011-12-16-2000	103	-1.587	12/16/11 20:00	-0.01541	213
2011-12-16-2100	154	-2.374	12/16/11 21:00	-0.01542	214
2011-12-16-2200	305	0.096	12/16/11 22:00	0.000315	215
2011-12-16-2300	304	0.115	12/16/11 23:00	0.000378	216
2011-12-17-0000	355	4.966	12/17/11 0:00	0.013989	217
2011-12-17-0100	305	3.422	12/17/11 1:00	0.01122	218
2011-12-17-0300	205	2.974	12/17/11 3:00	0.014507	219
2011-12-17-0400	205	2.578	12/17/11 4:00	0.012576	220
2011-12-17-0500	305	4.303	12/17/11 5:00	0.014108	221
2011-12-17-0600	305	4.584	12/17/11 6:00	0.01503	222
2011-12-17-0700	305	5.44	12/17/11 7:00	0.017836	223
2011-12-17-0800	330	5.551	12/17/11 8:00	0.016821	224
2011-12-17-0900	380	5.477	12/17/11 9:00	0.014413	225
2011-12-17-1000	580	3.22	12/17/11 10:00	0.005552	226
2011-12-17-1100	580	1.816	12/17/11 11:00	0.003131	227
2011-12-17-1200	580	2.361	12/17/11 12:00	0.004071	228
2011-12-17-1300	605	2.86	12/17/11 13:00	0.004727	229
2011-12-17-1600	155	1.695	12/17/11 16:00	0.010935	230
2011-12-17-1700	205	2.328	12/17/11 17:00	0.011356	231
2011-12-17-1800	484	5.165	12/17/11 18:00	0.010671	232
2011-12-17-1900	549	4.487	12/17/11 19:00	0.008173	233
2011-12-17-2000	500	7.502	12/17/11 20:00	0.015004	234
2011-12-17-2100	504	7.893	12/17/11 21:00	0.015661	235
2011-12-17-2200	605	9.339	12/17/11 22:00	0.015436	236
2011-12-17-2300	705	10.948	12/17/11 23:00	0.015529	237
2011-12-18-0000	804	11.964	12/18/11 0:00	0.014881	238
2011-12-18-0100	604	8.362	12/18/11 1:00	0.013844	239
2011-12-18-0200	605	8.514	12/18/11 2:00	0.014073	240
2011-12-18-0300	603	8.084	12/18/11 3:00	0.013406	241
	303	5.501	120,100		

Average Incremental Loss Factor

0.45%

Hour	oss	Inc Loss	Date-Time	% Losses	
2011-12-18-0400	603	7.724	12/18/11 4:00	0.012809	242
2011-12-18-0500	559	7.462	12/18/11 5:00	0.013349	243
2011-12-18-0600	549	8.307	12/18/11 6:00	0.015131	244
2011-12-18-0700	547	8.259	12/18/11 7:00	0.015099	245
2011-12-18-0800	544	6.39	12/18/11 8:00	0.011746	246
2011-12-18-0900	644	3.53	12/18/11 9:00	0.005481	247
2011-12-18-1000	507	1.6	12/18/11 10:00	0.003156	248
2011-12-18-1100	401	0.122	12/18/11 11:00	0.000304	249
2011-12-18-1200	640	3.462	12/18/11 12:00	0.005409	250
2011-12-18-1500	543	6.93	12/18/11 15:00	0.012762	251
2011-12-18-1600	304	3.744	12/18/11 16:00	0.012316	252
2011-12-18-1700	404	4.814	12/18/11 17:00	0.011916	253
2011-12-18-1800	447	4.922	12/18/11 18:00	0.011011	254
2011-12-18-1900	379	2.276	12/18/11 19:00	0.006005	255
2011-12-18-2000	353	1.208	12/18/11 20:00	0.003422	256
2011-12-18-2100	404	-1.911	12/18/11 21:00	-0.00473	257
2011-12-18-2200	305	-2.361	12/18/11 22:00	-0.00774	258
2011-12-18-2300	302	-0.697	12/18/11 23:00	-0.00231	259
2011-12-19-0000	355	4.48	12/19/11 0:00	0.01262	260
2011-12-19-0100	176	2.625	12/19/11 1:00	0.014915	261
2011-12-19-0200	105	1.395	12/19/11 2:00	0.013286	262
2011-12-19-0300	205	2.729	12/19/11 3:00	0.013312	263
2011-12-19-0400	204	2.935	12/19/11 4:00	0.014387	264
2011-12-19-0500	355	5.026	12/19/11 5:00	0.014158	265
2011-12-19-0600	499	1.464	12/19/11 6:00	0.002934	266
2011-12-19-0900	205	-4.079	12/19/11 9:00	-0.0199	267
2011-12-19-1000	274	-1.744	12/19/11 10:00	-0.00636	268
2011-12-19-1100	300	-6.551	12/19/11 11:00	-0.02184	269
2011-12-19-1200	205	-2.709	12/19/11 12:00	-0.01321	270
2011-12-19-1700	305	2.062	12/19/11 17:00	0.006761	271
2011-12-19-1800	355	-0.565	12/19/11 18:00	-0.00159	272
2011-12-19-1900	255	-2.417	12/19/11 19:00	-0.00948	27.3
2011-12-19-2000	353	-0.538	12/19/11 20:00	-0.00152	274
2011-12-19-2100	455	0.957	12/19/11 21:00	0.002103	275
2011-12-20-0700	480	3.33	12/20/11 7:00	0.006938	276
2011-12-20-0800	505	4.391	12/20/11 8:00	0.008695	277
2011-12-20-0900	305	2.477	12/20/11 9:00	0.008121	278
2011-12-20-1800	357	1.906	12/20/11 18:00	0.005339	279
2011-12-20-1900	482	-2.843	12/20/11 19:00	-0.0059	280
2011-12-20-2000	455	-3.789	12/20/11 20:00	-0.00833	281
2011-12-20-2100	606	-2.281	12/20/11 21:00	-0.00376	282
2011-12-20-2200	305	0.84	12/20/11 22:00	0.002754	283
2011-12-21-0800	296	1.744	12/21/11 8:00	0.005892	284
2011-12-21-0900	300	2.379	12/21/11 9:00	0.00793	285
2011-12-21-1800	301	0.644	12/21/11 18:00	0.00214	286
2011-12-21-1900	492	-2.792	12/21/11 19:00	-0.00567	287
2011-12-21-2000	501	-3.005	12/21/11 20:00	-0.006	288
2011-12-21-2100	699	-2.795	12/21/11 21:00	-0.004	289
2011-12-21-2200	500	3.085	12/21/11 22:00	0.00617	290
2011-12-21-2300	100	0.076	12/21/11 23:00	0.00076	291
2011-12-22-0800	350	0.743	12/22/11 8:00	0.002123	292
2011-12-22-0900	300	-6.295	12/22/11 9:00	-0.02098	293
2011-12-22-1300	100	-0.149	12/22/11 13:00	-0.00149	294
2011-12-22-1800	275	-0.954	12/22/11 18:00	-0.00347	295
2011-12-22-1900	200	-4.214	12/22/11 19:00	-0.02107	296
2011-12-22-2000	225	-4.204	12/22/11 20:00	-0.01868	297

Hour	oss	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor
2011-12-22-2100	450	-1.389	12/22/11 21:00	-0.00309	298		
2011-12-23-1000	250	0.299	12/23/11 10:00	0.001196	299		
2011-12-23-1100	425	2.079	12/23/11 11:00	0.004892	300		
2011-12-23-1200	600	4.022	12/23/11 12:00	0.006703	301		
2011-12-23-1300	365	1.993	12/23/11 13:00	0.00546	302		
2011-12-23-1400	485	3.815	12/23/11 14:00	0.007866	303		
2011-12-23-1500	100	-0.304	12/23/11 15:00	-0.00304	304		
2011-12-23-1700	260	0.891	12/23/11 17:00	0.003427	305		
2011-12-23-1800	599	4.568	12/23/11 18:00		306		
2011-12-23-1900	529	4.069	12/23/11 19:00		307		
2011-12-23-2000	450	3.258	12/23/11 20:00	0.00724	308		
2011-12-23-2100	350	2.472	12/23/11 21:00		309		
2011-12-23-2200	100	-0.212	12/23/11 22:00	-0.00212	310		
2011-12-24-0900	150	1.143	12/24/11 9:00	0.00762	311		
2011-12-24-1000	200	1.714	12/24/11 10:00	0.00857	312		
2011-12-24-1100	188	0.19	12/24/11 11:00		313		
2011-12-24-1800	663	4.485	12/24/11 18:00		314		
2011-12-24-1900	555	4.327	12/24/11 19:00		315		
2011-12-24-2000	455	3.744	12/24/11 20:00		316		
2011-12-24-2000	100	-0.408	12/24/11 23:00	-0.00408	317		
2011-12-25-0000	100	-0.345	12/25/11 0:00		318		
2011-12-25-0000	225	0.974	12/25/11 7:00		319		
2011-12-25-0800	225	1.03	12/25/11 8:00		320		
2011-12-25-0900	300	2.257	12/25/11 9:00		321		
2011-12-25-1000	299	2.17	12/25/11 10:00		322		
2011-12-25-1000	462	2.886	12/25/11 18:00		323		
2011-12-25-1900	465	3.072	12/25/11 19:00		324		
2011-12-25-1900	398	2.189	12/25/11 19:00	0.0055	325		
2011-12-25-2000	300	1.37	12/26/11 7:00		326		
2011-12-26-0800	602	5.21	12/26/11 8:00		327		
2011-12-26-0900	500	4.15	12/26/11 9:00	0.0083	328		
2011-12-26-1000	300	3.899	12/26/11 10:00		329		
2011-12-26-1800	450	3.692	12/26/11 18:00		330		
2011-12-26-1900	500	5.203	12/26/11 19:00		331		
2011-12-26-2000	450	4.912	12/26/11 19:00		332		
2011-12-26-2100	600	7.735	12/26/11 21:00		333		
2011-12-26-2200	400	5.042	12/26/11 21:00		334		
2011-12-26-2300	296	3.132	12/26/11 23:00		335		
	300	2.05	12/27/11 5:00		336		
2011-12-27-0500 2011-12-27-0600	300	1.799	12/27/11 6:00		337		
2011-12-27-0000	399	2.483	12/27/11 7:00		338		
2011-12-27-0700	449	3.432	12/27/11 7:00		339		
2011-12-27-0800	500	4.228	12/27/11 9:00		340		
2011-12-27-1000	400	3.509	12/27/11 10:00		341		
2011-12-27-1100	625	6.079	12/27/11 11:00		342		
2011-12-27-1100	958	10.4	12/27/11 11:00		343		
2011-12-27-1200	958	10.269	12/27/11 13:00		344		
2011-12-27-1300	857	9.111	12/27/11 14:00		345		
2011-12-27-1400	857	8.711	12/27/11 15:00		346		
2011-12-27-1600	857 857	8.109	12/27/11 15:00		347		
2011-12-27-1000	707	7.154	12/27/11 17:00		348		
2011-12-27-1700	932	4.191	12/27/11 17:00		349		
2011-12-27-1800	807	1.447	12/27/11 18:00		350		
2011-12-27-1900	798	1.447	12/27/11 19:00		351		
2011-12-27-2000	933	3.959	12/27/11 20:00		351		<i>J</i> ^
2011-12-27-2100	739	3.939 8.307	12/27/11 21:00		353		
ZU11-1Z-Z/-ZZUU	1.39	0.307	12/2//11 22.00	0.011241	ניננ		

			LGEE Hourly Increa	nental Loss	es		
11	066	In a I ass	Doto Timo	0/ 1 annan		0.450/	Average Incremental Loss Factor
Hour	OSS 458	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor
2011-12-27-2300		5.133	12/27/11 23:00		354		
2011-12-28-0000 2011-12-28-0600	115 400	1.099	12/28/11 0:00 12/28/11 6:00	0.009337	355 356		
2011-12-28-0000	650	3.38 6.231	12/28/11 7:00		350 357		
2011-12-28-0700	975		12/28/11 7:00		357 358		
2011-12-28-0900	834	11.013 9.863	12/28/11 8:00		358 359		
2011-12-28-0900	733	9.803	12/28/11 10:00		360		
2011-12-28-1000	625	7.614	12/28/11 11:00		361		
2011-12-28-1100	575	6.939	12/28/11 11:00		362		
2011-12-28-1200	100	0.939	12/28/11 12:00	0.012008	363		
2011-12-28-1700	350	2.805	12/28/11 17:00		364		
2011-12-28-1800	638	6.428	12/28/11 17:00		365		
2011-12-28-1900	600	3.804	12/28/11 19:00	0.00634	366		
2011-12-28-2000	429	4.534	12/28/11 20:00		367		
2011-12-28-2100	453	5.167	12/28/11 21:00		368		
2011-12-28-2200	354	3.782	12/28/11 22:00		369		
2011-12-28-2300	350	3.684	12/28/11 23:00		370		
2011-12-29-0000	300	3.126	12/29/11 0:00	0.01042	371		
2011-12-29-0600	100	0.767	12/29/11 6:00	0.00767	372		
2011-12-29-0700	354	3.849	12/29/11 7:00		373		
2011-12-29-0800	604	8.13	12/29/11 8:00	0.01346	374		
2011-12-29-0900	488	6.453	12/29/11 9:00		375		
2011-12-29-1000	354	4.792	12/29/11 10:00		376		
2011-12-29-1100	354	4.453	12/29/11 11:00		377		
2011-12-29-1200	350	4.066	12/29/11 12:00		378		
2011-12-29-1300	353	3.83	12/29/11 13:00	0.01085	379		
2011-12-29-1400	353	3.335	12/29/11 14:00		380		
2011-12-29-1500	355	3.393	12/29/11 15:00		381		
2011-12-29-1600	355	3.152	12/29/11 16:00		382		
2011-12-29-1700	355	2.922	12/29/11 17:00	0.008231	383		
2011-12-29-1800	505	4.657	12/29/11 18:00	0.009222	384		
2011-12-29-1900	505	5.001	12/29/11 19:00	0.009903	385		
2011-12-29-2000	555	5.471	12/29/11 20:00	0.009858	386		
2011-12-29-2100	353	3.853	12/29/11 21:00	0.010915	387		
2011-12-29-2200	355	4.021	12/29/11 22:00	0.011327	388		
2011-12-30-0700	400	3.326	12/30/11 7:00	0.008315	389		
2011-12-30-0800	400	3.823	12/30/11 8:00		390		
2011-12-30-0900	400	4.342	12/30/11 9:00	0.010855	391		
2011-12-30-2000	100	0.526	12/30/11 20:00	0.00526	392		
2011-12-30-2100	112	0.52	12/30/11 21:00		393		
2012-01-02-0800	300	3.711	1/2/12 8:00	0.01237	1		155,171 969
2012-01-02-0900	250	3.58	1/2/12 9:00	0.01432	2	avg	395 2.466 0.625%
2012-01-02-1000	225	3.086	1/2/12 10:00		.3		
2012-01-02-1200	150	1.894	1/2/12 12:00		4		
2012-01-03-0100	231	2.071	1/3/12 1:00		5		
2012-01-03-0200	231	2.111	1/3/12 2:00		6		
2012-01-03-0300	230	2.105	1/3/12 3:00		7		
2012-01-03-0400	231	2.04	1/3/12 4:00		8		
2012-01-03-0500	230	1.863	1/3/12 5:00	0.0081	9		
2012-01-03-0600	231	1.666	1/3/12 6:00		10		
2012-01-03-0700	353	-5.741	1/3/12 7:00		11		
2012-01-03-0800	150	-6.393	1/3/12 8:00		12		
2012-01-03-0900 2012-01-03-1000	100 200	-4.274 9.615	1/3/12 9:00		13 14		
2012-01-03-1000	355	-8.615 -11.808	1/3/12 10:00 1/3/12 11:00		15		
2012-01-03-1100	405	-11.898 -7.129	1/3/12 11:00	-0.03332	16		
2012-01-03-1200	40.3	-1.129	1/3/12 12:00	-0.01/0	10		

**	0.00		75 (77)	0./ ¥		0.4807
Hour	OSS	Inc Loss	Date-Time	% Losses	1.77	0.45%
2012-01-03-1300	273	0.313	1/3/12 13:00	0.001147	17	
2012-01-03-1400	598	-4.452	1/3/12 14:00	-0.00744	18	
2012-01-03-1500	395	-3.511	1/3/12 15:00	-0.00889	19	
2012-01-03-1600	199	0.037	1/3/12 16:00	0.000186	20	
2012-01-03-1700	269	1.488	1/3/12 17:00	0.005532	21	
2012-01-03-1800	738	-5.325	1/3/12 18:00	-0.00722	22	
2012-01-03-1900	573	-11.585	1/3/12 19:00	-0.02022	23	
2012-01-03-2000	299	-7.421	1/3/12 20:00	-0.02482	24	
2012-01-03-2100	150	-6.603	1/3/12 21:00	-0.04402	25	
2012-01-04-0500	190	1.134	1/4/12 5:00	0.005968	26	
2012-01-04-0600	349	2.361	1/4/12 6:00	0.006765	27	
2012-01-04-0700	437	-4.703	1/4/12 7:00	-0.01076	28	
2012-01-04-0800	385	-10.335	1/4/12 8:00	-0.02684	29	
2012-01-04-0900	449	-9.458	1/4/12 9:00	-0.02106	30	
2012-01-04-1000	407	-7.141	1/4/12 10:00	-0.01755	31	
2012-01-04-1100	524	-8.719	1/4/12 11:00	-0.01664	32	
2012-01-04-1200	573	-7.05	1/4/12 12:00	-0.0123	33	
2012-01-04-1300	689	-2.474	1/4/12 13:00	-0.00359	34	
2012-01-04-1400	684	0.229	1/4/12 14:00	0.000335	35	
2012-01-04-1500	506	4.839	1/4/12 15:00	0.009563	36	
2012-01-04-1700	302	1.854	1/4/12 17:00	0.006139	37	
2012-01-04-1800	609	2.327	1/4/12 18:00	0.003821	38	
2012-01-04-1900	809	-2.7 5.326	1/4/12 19:00	-0.00334	39	
2012-01-04-2000	585	-5.326	1/4/12 20:00	-0.0091	40	
2012-01-04-2100	664	-2.1	1/4/12 21:00	-0.00316	41	
2012-01-04-2200	408	2.552	1/4/12 22:00	0.006255	42	
2012-01-04-2300	149	0.225	1/4/12 23:00	0.00151	43	
2012-01-05-0700	199	0.349	1/5/12 7:00	0.001754	44	
2012-01-05-0800	424	-0.102	1/5/12 8:00	-0.00024	45	
2012-01-05-0900	399	-0.206	1/5/12 9:00	-0.00052	46	
2012-01-05-1000	499	0.143	1/5/12 10:00 1/5/12 11:00	0.000287	47	
2012-01-05-1100 2012-01-05-1800	424 399	2.888 2.297	1/5/12 11:00	0.006811 0.005757	48 49	
2012-01-05-1800	399 474	3.109	1/5/12 19:00	0.005757	50	
2012-01-05-1900	474	3.238	1/5/12 20:00	0.000339	50 51	
2012-01-05-2100	200	1.121	1/5/12 21:00	0.007637	52	
2012-01-03-2100	308	1.926	1/6/12 8:00	0.005003	53	
2012-01-06-0900	366	2.544	1/6/12 9:00	0.006253	55 54	
2012-01-08-1800	350	-0.135	1/8/12 18:00	-0.000331	55	
2012-01-08-1000	100	-0.303	1/8/12 20:00	-0.00303	56	
2012-01-08-2100	150	0.205	1/8/12 21:00	0.001367	57	
2012-01-08-2100	250	1.408	1/8/12 22:00	0.005632	58	
2012-01-09-0600	400	2.206	1/9/12 6:00	0.005515	59	
2012-01-09-0700	400	1.074	1/9/12 7:00	0.002685	60	
2012-01-09-0800	200	-1.996	1/9/12 8:00	-0.00998	61	
2012-01-09-0900	200	-1.979	1/9/12 9:00	-0.0099	62	
2012-01-09-1000	200	-1,495	1/9/12 10:00	-0.00748	63	
2012-01-09-1100	199	-1.438	1/9/12 11:00	-0.00723	64	
2012-01-09-1200	148	-2.279	1/9/12 12:00	-0.0154	65	
2012-01-09-1300	250	-1.663	1/9/12 13:00	-0.00665	66	
2012-01-09-1400	350	-0.937	1/9/12 14:00	-0.00268	67	
2012-01-09-1800	297	-0.534	1/9/12 18:00	-0.0018	68	
2012-01-09-1900	250	-0.1	1/9/12 19:00	-0.0004	69	
2012-01-09-2000	100	-1.025	1/9/12 20:00	-0.01025	70	
2012-01-09-2100	200	-0.37	1/9/12 21:00	-0.00185	71	
2012-01-09-2200	200	-0.348	1/9/12 22:00	-0.00174	72	
		2.2.0	-/>/ 12 22.00		, -	

Hour	oss	Inc Loss	Date-Time	% Losses	0.4	15%
2012-01-10-0600	200	-0.057	1/10/12 6:00	-0.00029	73	
2012-01-10-0700	150	-2.209	1/10/12 7:00	-0.01473	74	
2012-01-10-1800	375	2.532	1/10/12 18:00	0.006752	75	
2012-01-10-1900	250	-0.065	1/10/12 19:00	-0.00026	76	
2012-01-11-0600	100	-0.46	1/11/12 6:00	-0.0046	77	
2012-01-11-0700	250	1.024	1/11/12 7:00	0.004096	78	
2012-01-11-0800	200	0.229	1/11/12 8:00	0.001145	79	
2012-01-11-0900	100	-0.405	1/11/12 9:00	-0.00405	80	
2012-01-11-1000	188	-0.034	1/11/12 10:00	-0.00018	81	
2012-01-11-1100	200	-0.12	1/11/12 11:00	-0.0006	82	
2012-01-11-1900	200	0.216	1/11/12 19:00	0.00108	83	
2012-01-11-2000	235	0.827	1/11/12 20:00	0.003519	84	
2012-01-11-2100	399	2.604	1/11/12 21:00	0.006526	85	
2012-01-11-2200	399	2.934	1/11/12 22:00	0.007353	86	
2012-01-12-0700	375	2.825	1/12/12 7:00	0.007533	87	
2012-01-12-0800	600	2.67	1/12/12 8:00	0.00445	88	
2012-01-12-0900	500	0.012	1/12/12 9:00	0.000024	89	
2012-01-12-1000	600	2.755	1/12/12 10:00	0.004592	90	
2012-01-12-1100	200	1.035	1/12/12 11:00	0.005175	91	
2012-01-12-1300	150	0.378	1/12/12 13:00	0.00252	92	
2012-01-12-1600	260	-3.822	1/12/12 16:00	-0.0147	93	
2012-01-12-1700	260	-5.853	1/12/12 17:00	-0.02251	94	
2012-01-12-2300	101	-2.377	1/12/12 23:00	-0.02353	95	
2012-01-13-0000	307	1.721	1/13/12 0:00	0.005606	96	
2012-01-13-0800	150	-3.007	1/13/12 8:00	-0.02005	97	
2012-01-13-0900	211	-7.07	1/13/12 9:00	-0.03351	98	
2012-01-13-1000	203	-7.155	1/13/12 10:00	-0.03525	99	
2012-01-13-1100	200	-5.963	1/13/12 11:00	-0.02982	100	
2012-01-13-1200	104	-2.362	1/13/12 12:00	-0.02271	101	
2012-01-13-1400	150	-5.255	1/13/12 14:00	-0.03503	102	
2012-01-13-1500	150	- 3.579	1/13/12 15:00	-0.02386	103	
2012-01-13-1600	250	-2.615	1/13/12 16:00	-0.01046	104	
2012-01-13-1700	250	-1.993	1/13/12 17:00	-0.00797	105	
2012-01-13-1800	200	-2.689	1/13/12 18:00	-0.01345	106	
2012-01-13-1900	199	-3.641	1/13/12 19:00	-0.0183	107	
2012-01-13-2000	275	-3.476	1/13/12 20:00	-0.01264	108	
2012-01-13-2100	299	-2.653	1/13/12 21:00	-0.00887	109	
2012-01-13-2300	200	-1.017	1/13/12 23:00	-0.00509	110	
2012-01-14-0100	150	-1.054	1/14/12 1:00		111	
2012-01-14-0200	150	-0.742	1/14/12 2:00	-0.00495	112	
2012-01-14-0300	200	0.15	1/14/12 3:00	0.00075	113	
2012-01-14-0400	200	1.579	1/14/12 4:00	0.007895	114	
2012-01-14-0500	570	7.675	1/14/12 5:00	0.013465	115	
2012-01-14-0600	700	11.59	1/14/12 6:00	0.016557	116	
2012-01-14-0700	600	6.92	1/14/12 7:00	0.011533	117	
2012-01-14-0800	599	0.95	1/14/12 8:00	0.001586	118	
2012-01-14-0900	499	-2.144	1/14/12 9:00	-0.0043	119	
2012-01-14-1000	450 535	-2.832	1/14/12 10:00	-0.00629	120	
2012-01-14-1100	535 575	-2.523	1/14/12 11:00	-0.00472	121	
2012-01-14-1200	575 796	-1.229	1/14/12 12:00	-0.00214 0.003124	122 123	
2012-01-14-1300	796 399	2.487	1/14/12 13:00 1/14/12 14:00		123 124	
2012-01-14-1400	400	3.591		0.009 0.009328	124	
2012-01-14-1500 2012-01-14-1800	600	3.731 4.34	1/14/12 15:00 1/14/12 18:00	0.009328	125	
2012-01-14-1800	650	4.584	1/14/12 18:00	0.007233	120	
2012-01-14-1900	636	5.673	1/14/12 19:00	0.007032	127	
2012-01-14-2000	0.50	5.075	1/14/12 20:00	0.00072	120	

			•				Average Increm
Hour	oss	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor
2012-01-14-2100	786	7.344	1/14/12 21:00	0.009344	129		
2012-01-14-2200	400	3.597	1/14/12 22:00		130		
2012-01-14-2300	400	3.808	1/14/12 23:00	0.00952	131		
2012-01-15-0800	100	-0.302	1/15/12 8:00	-0.00302	132		
2012-01-15-0900	400	2.746	1/15/12 9:00	0.006865	133		
2012-01-15-1000	397	3.023	1/15/12 10:00	0.007615	134		
2012-01-15-1100	400	3.043	1/15/12 11:00	0.007608	135		
2012-01-15-1200	400	2.556	1/15/12 12:00	0.00639	136		
2012-01-15-1300	400	2.674	1/15/12 13:00	0.006685	137		
2012-01-15-1800	400	2.85	1/15/12 18:00	0.007125	138		
2012-01-15-1900	540	5.597	1/15/12 19:00	0.010365	139		
2012-01-15-2000	551	6.019	1/15/12 20:00	0.010924	140		
2012-01-15-2100	586	6.419	1/15/12 21:00	0.010954	141		
2012-01-15-2200	533	5.848	1/15/12 22:00	0.010972	142		
2012-01-15-2300	536	5.751	1/15/12 23:00	0.010729	143		
2012-01-16-0600	354	3.523	1/16/12 6:00	0.009952	144		
2012-01-16-0700	450	5.176	1/16/12 7:00	0.011502	145		
2012-01-16-0800	433	4.85	1/16/12 8:00	0.011201	146		
2012-01-16-0900	491	5.554	1/16/12 9:00	0.011312	147		
2012-01-16-1000	582	6.527	1/16/12 10:00	0.011215	148		
2012-01-16-1100	714	6.93	1/16/12 11:00		149		
2012-01-16-1200	682	6.703	1/16/12 12:00	0.009828	150		
2012-01-16-1300	737	6.881	1/16/12 13:00		151		
2012-01-16-1400	350	3.122	1/16/12 14:00	0.00892	152		
2012-01-16-1800	200	0.875	1/16/12 18:00		153		
2012-01-16-1900	549	4.398	1/16/12 19:00		154		
2012-01-16-2000	549	4.999	1/16/12 20:00		155		
2012-01-16-2100	545	4.976	1/16/12 21:00	0.00913	156		
2012-01-16-2200	400	3.155	1/16/12 22:00		157		
2012-01-17-0700	543	3.049	1/17/12 7:00		158		
2012-01-17-0800	550	3.289	1/17/12 8:00	0.00598	159		
2012-01-17-0900	400	2.241	1/17/12 9:00		160		
2012-01-17-1000	100	0.028	1/17/12 10:00	0.00028	161		
2012-01-17-1800	300	1.906	1/17/12 18:00		162		
2012-01-17-1900	300	1.845	1/17/12 19:00	0.00615	163		
2012-01-17-2000	617	4.737	1/17/12 20:00		164		
2012-01-17-2100	300	1.631	1/17/12 21:00		165		r
2012-01-18-0700	300	1.984	1/18/12 7:00		166		
2012-01-18-0800	375	1.67	1/18/12 8:00	0.004453	167		
2012-01-18-0900	300	0.888	1/18/12 9:00	0.00296	168		
2012-01-18-1000	200	0.738	1/18/12 10:00	0.00369	169		
2012-01-18-1100	100	0.028	1/18/12 11:00	0.00028	170		
2012-01-18-1200	194	0.91	1/18/12 12:00		171		
2012-01-18-1800	312	1.01	1/18/12 18:00		172		
2012-01-18-1900	407	-1.015	1/18/12 19:00	-0.00249	173		
2012-01-18-2000 2012-01-18-2100	256	-2.995	1/18/12 20:00	-0.0117	174		
2012-01-18-2100	206	0.536	1/18/12 21:00	0.002602	175		
2012-01-18-2200	306 150	2.289 0.318	1/18/12 22:00 1/19/12 6:00	0.00748 0.00212	176 177		
2012-01-19-0700	371	0.549	1/19/12 0:00	0.00212	178		
2012-01-19-0700	324	-3.994	1/19/12 7:00	-0.01233	178		
2012-01-19-0800	324 297	-3.994	1/19/12 8:00	-0.01233	179		
2012-01-19-0900	350	0.683	1/19/12 10:00	0.001951	181		
2012-01-19-1000	396	2.949	1/19/12 10:00	0.007447	182		
2012-01-19-1100	600	4.038	1/19/12 11:00	0.007447	183		
2012-01-19-1200	519	3.324	1/19/12 12:00	0.006405	184		
2012-01-17-1300	.519	3.324	1/19/12 15:00	0.000703	104		

Average Incremental

							Average Incremental
Hour	OSS	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor
2012-01-19-1800	528	3.509	1/19/12 18:00	0.006646	185		
2012-01-19-1900	575	3.008	1/19/12 19:00	0.005231	186		
2012-01-19-2000	525	1.584	1/19/12 20:00	0.003017	187		
2012-01-19-2100	475	-0.411	1/19/12 21:00	-0.00087	188		
2012-01-19-2200	375	0.339	1/19/12 22:00	0.000904	189		
2012-01-19-2300	168	0.829	1/19/12 23:00	0.004935	190		
2012-01-20-0700	400	0.906	1/20/12 7:00	0.002265	191		
2012-01-20-0800	319	-4.546	1/20/12 8:00	-0.01425	192		
2012-01-20-0900	325	-5.639	1/20/12 9:00	-0.01735	193		
2012-01-20-1200	350	-1.151	1/20/12 12:00	-0.00329	194		
2012-01-20-1800	436	2.137	1/20/12 18:00	0.004901	195		
2012-01-20-1900	441	-0.609	1/20/12 19:00	-0.00138	196		
2012-01-20-2000	440	0.647	1/20/12 20:00	0.00147	197		
2012-01-20-2100	394	2.636	1/20/12 21:00	0.00669	198		
2012-01-20-2200	393	2.828	1/20/12 22:00	0.007196	199		
2012-01-20-2300	250	1.242	1/20/12 23:00	0.004968	200		
2012-01-21-0000	150	0.536	1/21/12 0:00	0.003573	201		
2012-01-21-0900	100	-1.719	1/21/12 9:00	-0.01719	202		
2012-01-21-1400	106	-1.875	1/21/12 14:00	-0.01769	203		
2012-01-21-1500	150	-1.765	1/21/12 15:00	-0.01177	204		
2012-01-21-1600	200	-1.477	1/21/12 16:00	-0.00739	205		
2012-01-21-1700	200	-1.237	1/21/12 17:00	-0.00619	206		
2012-01-21-1800	150	-1.873	1/21/12 18:00	-0.01249	207		
2012-01-22-1000	438	2.434	1/22/12 10:00	0.005557	208		
2012-01-22-1100	398	2.694	1/22/12 11:00	0.006769	209		
2012-01-22-1200	399	2.747	1/22/12 12:00	0.006885	210		
2012-01-22-1300	400	2.828	1/22/12 13:00	0.00707	211		
2012-01-22-1700	450	3.646	1/22/12 17:00		212		
2012-01-22-1700	451	3.738	1/22/12 17:00	0.008288	213		
2012-01-22-1900	526	4.555	1/22/12 19:00	0.00866	214		
2012-01-22-2000	600	5.035	1/22/12 19:00	0.008392	215		
2012-01-22-2100	399	3.728	1/22/12 21:00		216		
2012-01-22-2100	300	2.337	1/22/12 22:00	0.00779	217		
2012-01-22-2300	300	1.946	1/22/12 23:00		218		
2012-01-23-0800	450	3.324	1/23/12 8:00		219		
2012-01-23-0900	447	3.974	1/23/12 9:00	0.007387	220		
2012-01-23-1000	572	5.253	1/23/12 10:00	0.009184	221		
2012-01-23-1100	651	5.111	1/23/12 10:00		222		
2012-01-23-1100	650	4.66	1/23/12 11:00	0.007169	223		
2012-01-23-1200	649	4.425	1/23/12 12:00	0.007103	224		
2012-01-23-1400	550	4.557	1/23/12 13:00		225		
2012-01-23-1500	200	0.817	1/23/12 15:00		226		
2012-01-23-1500	200	0.75	1/23/12 15:00	0.004085	227		
2012-01-23-1700	200	0.73	1/23/12 17:00		228		
2012-01-23-1700	438	2.055	1/23/12 17:00		229		
2012-01-23-1800	495	1.655	1/23/12 19:00	0.004092	230		
2012-01-23-2000	300	1.013	1/23/12 19:00	0.003343	231		
2012-01-23-2100	200	0.813	1/23/12 20:00		232		
2012-01-23-2100	200	1.424	1/23/12 21:00	0.004063	232		
2012-01-23-2200	245	0.287	1/23/12 22:00		233		
2012-01-24-0700	300	0.267	1/24/12 7:00		234		
2012-01-24-0800	250	0.343	1/24/12 8:00	0.001817	233		
2012-01-24-1000	250	0.63.5	1/24/12 9:00		237		
2012-01-24-1100 2012-01-24-1800	248	0.64	1/24/12 11:00		238		
	300	0.666	1/24/12 18:00	0.00222	239		
2012-01-24-1900	300	0.58	1/24/12 19:00	0.001933	240		

LGEE Hourly Incremental Losses												
			Average Incremental									
Hour	OSS	Inc Loss	Date-Time	% Losses		0.45%	Loss Factor					
2012-01-24-2000	200	0.071	1/24/12 20:00	0.000355	241							
2012-01-25-0700	150	-1.009	1/25/12 7:00	-0.00673	242							
2012-01-25-1800	200	-0.083	1/25/12 18:00	-0.00042	243							
2012-01-28-1300	300	1.234	1/28/12 13:00	0.004113	244							
2012-01-28-1400	200	0.319	1/28/12 14:00	0.001595	245							
2012-01-28-1900	275	0.344	1/28/12 19:00	0.001251	246							
2012-01-28-2000	400	2.174	1/28/12 20:00	0.005435	247							
2012-01-28-2100	200	0.493	1/28/12 21:00	0.002465	248							
2012-01-29-1000	100	-0.824	1/29/12 10:00	-0.00824	249							
2012-01-29-1900	250	0.26	1/29/12 19:00	0.00104	250							
2012-01-29-2000	400	1.924	1/29/12 20:00	0.00481	251							
2012-01-29-2100	200	0.135	1/29/12 21:00	0.000675	252							
2012-01-30-0700	257	-1.366	1/30/12 7:00	-0.00532	253							
2012-01-30-0800	100	-2.89	1/30/12 8:00	-0.0289	254							
2012-01-30-0900	100	-2.708	1/30/12 9:00	-0.02708	255							
2012-01-30-1000	100	-2.734	1/30/12 10:00	-0.02734	256							
2012-01-30-1300	100	0.79	1/30/12 13:00	0.0079	257							
2012-01-30-1800	398	3.493	1/30/12 18:00	0.008776	258							
2012-01-30-1900	399	3.959	1/30/12 19:00	0.009922	259							
2012-01-30-2000	450	4.693	1/30/12 20:00	0.010429	260							
2012-01-30-2100	450	5.446	1/30/12 21:00	0.012102	261							
2012-01-31-0700	350	3.187	1/31/12 7:00	0.009106	262							
2012-01-31-0800	424	4.679	1/31/12 8:00	0.011035	263							
2012-01-31-0900	200	2.271	1/31/12 9:00	0.011355	264							
2012-01-31-1000	100	0.639	1/31/12 10:00	0.00639	265							
						265 avg	92,041 165 347 0.621 0.179%					

Figures

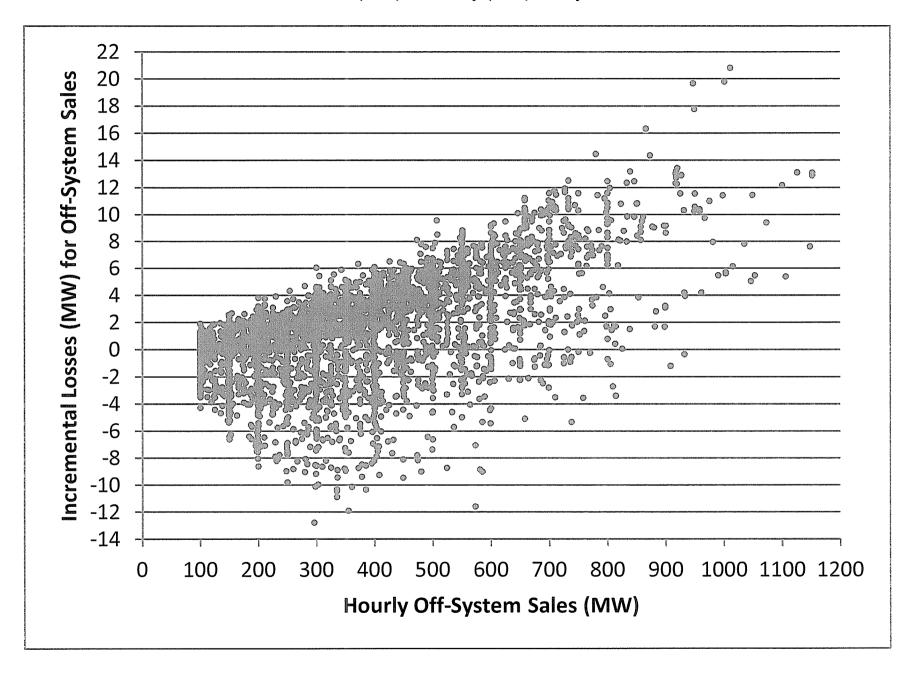


Figure 1

LGEE Range % Loss By Month

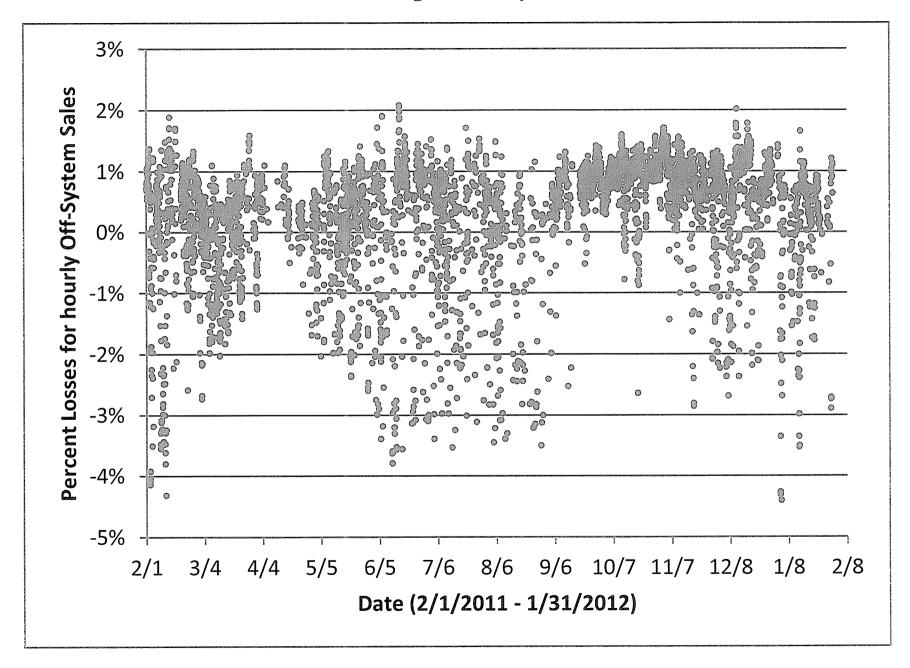


Figure 2

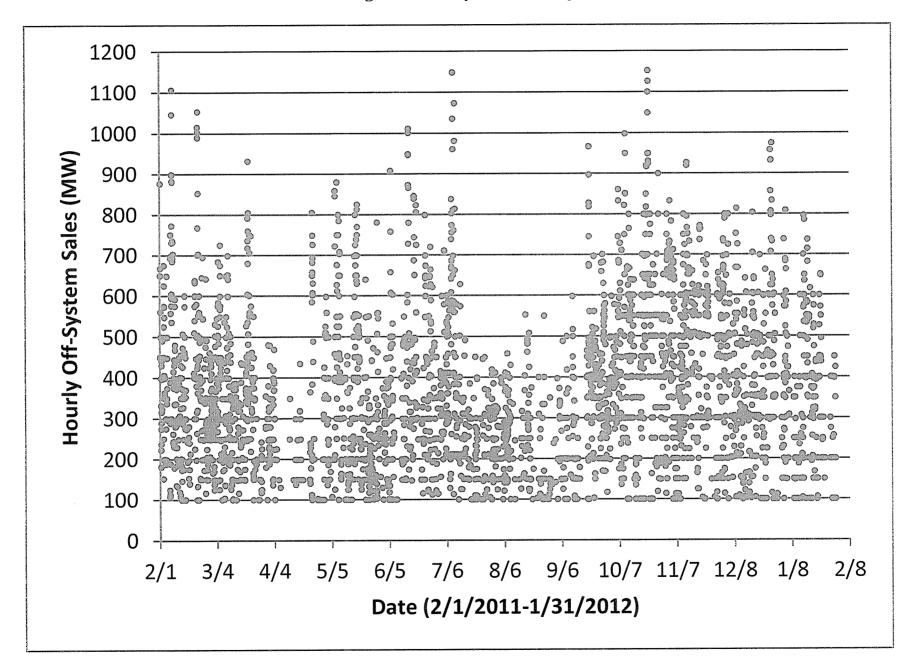


Figure 3

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 37

Witness: Mike Dotson

- Q-37. State whether KU has solicited bids for coal with the restriction that it was not mined through strip mining or mountain top removal. If the response is yes, explain the reasons for the restriction on the solicitation, the quantity in tons and price per ton of the coal purchased as a result of this solicitation, and the difference between the price of this coal and the price it could have obtained for the coal if the solicitation had not been restricted.
- A-37. KU has not solicited bids with this restriction.

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 38

Witness: Charles R. Schram

- Q-38. List KU's generating units in economic dispatch order. State whether KU operated its generating units in economic dispatch order during the period under review. If the response is no, explain.
- A-38. Please see the attached sheet, which shows the generating units' dispatch order rank for each month of the two-year review period.

Consistent with their historical practice since their merger in 1998, KU and LG&E jointly dispatched their generation fleet during the period under review to produce energy at the lowest cost to reliably serve customers, taking into account locational and operational limits of generation and transmission equipment, reliability factors, and other economic considerations. The generation fleet presently consists of both coal-fired base load units and fossil-fueled natural gas combustion turbines ("CTs"), built to serve primarily as peaking units. CTs are known for their ability to quickly ramp to capacity, enabling rapid response to increasing load conditions or to mitigate any unexpected base load coal unit outages. Conversely, off-line coal units cannot ramp quickly enough to serve rapidly increasing load or to mitigate the outage of CTs.

Each month, the Companies produce a list of generating units in dispatch order ("Genstack"). The Genstack details the cost of producing a MWh of electricity from each unit. The unit order is affected primarily by fuel cost and each unit's efficiency, better known as heat rate. Each day, a dispatch plan is developed, modifying the monthly Genstack as needed to reflect unit availability status, any change in fuel costs, and other operating and reliability factors. Fuel costs for the base load coal units typically do not change significantly within a given month. Natural gas prices, however, can change frequently, making the relative position of natural gas-fired CTs in the Genstack more variable in each daily plan.

During the spring months of 2012, natural gas prices fell significantly, reaching almost historic low prices. At times, gas prices fell below coal prices on a \$/MMBtu basis. As a result, some CTs were placed before some coal units in the dispatch order. For example, in April and May of 2012, CT generation comprised 14% of total generation, compared

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Page 2 of 2
Schram

to only 2% in April and May of 2011. Therefore, the Companies' daily economic dispatch plans considered the operational limits on running the CTs, selecting a mix of the lowest cost CTs (based on each unit's heat rate) and base load coal capacity to ensure reliability across a potential range of load and unit outage contingencies. Considering such operational limits is crucial, since an economic dispatch based strictly on incremental fuel cost has no value if the resulting configuration of electric generation and transmission becomes unreliable and fails.

Rank of Dispatch Costs from Monthly Genstacks (11/2010 - 10/2012)

11-16	11/2010	12/2010	01/2011	02/2011	03/2011	04/2011	05/2011	06/2011	07/2011	08/2011	09/2011	10/2011	11/2011	12/2011	01/2012	02/2012	03/2012	04/2012	05/2012	06/2012	07/2012	08/2012	09/2012	10/2012
Unit BROWN 1	17/2010	17/2010	18	18	18	18	18	18	18	18	18	19	18	19	19	24	24	24	24	21	20	18	20	16
BROWN 2	1.5	16	16	16	17	17	17	17	17	17	17	17	17	16	16	19	22	22	20	17	13	13	14	20
BROWN 3	16	15	17	17	16	16	16	16	16	16	16	16	16	17	18	23	23	23	23	20	18	16	17	15
	11	11	13	12	10	12	10	11	9	9	11	10	11	12	15	18	18	21	21	16	14	14	15	14
CANE RUN 4	11	11	11	11	10	11	0	12	10	10	9	9	9	10	12	14	15	18	15	14	11	11	9	8
CANE RUN 5 CANE RUN 6	12	12	14	14	12	1/1	14	14	14	14	14	14	14	14	14	17	16	19	18	18	15	15	13	13
GHENT 1	7	7	7	14	13	7.7	8	8	8	8	8	8	8	8	6	6	7	10	10	7	6	6	5	5
GHENT 2	,	,	,	7	6	6	7	7	7	7	7	7	7	7	4	4	3	7	6	3	3	3	2	2
GHENT 3	10	10	0	0	12	10	12	10	13	13	12	12	12	9	8	9	9	12	11	9	8	8	6	6
GHENT 4	10	10	10	10	11	10	11	9	11	11	10	11	10	11	11	11	13	17	14	11	9	9	11	10
GR RIVER 3	1.4	14	15	15	15	15	15	15	15	15	15	15	15	15	13	16	17	20	22	19	17	17	19	17
GR RIVER 4	19	13	12	13	1/1	13	13	13	12	12	13	13	13	13	9	7	10	14	13	15	12	12	10	11
MILL CREEK 1	13	13	3	3	2	1	2	2	1	1	1	2	2	3	2	2	4	6	5	4	4	4	4	3
MILL CREEK 2	3	,	2	2	3	3	3	3	3	3	3	3	3	2	3	3	6	8	8	5	5	5	7	7
MILL CREEK 3	4	4	5		5	5	- 5	5	5	5	5	5	6	6	7	10	12	15	12	12	10	10	12	12
MILL CREEK 4	1	7	4	4	4	4	4	4	2	4	4	4	4	4	10	12	8	9	9	8	7	7	8	9
TRIMBLE 1	5	ς .	6	8	7	7	6	6	6	6	6	6	5	5	5	5	2	5	3	2	2	2	3	4
TRIMBLE 2	-		1	1	1	2	1	1	4	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1
TYRONE 3	20	18	20	21	22	21	21																	
BROWN 5	24	24	23	23	23	23	23	22	22	22	22	22	22	22	24	22	19	11	16	22	22	22	22	22
BROWN 6 & 7	18	20	21	20	19	20	20	20	20	20	20	20	20	20	20	13	11	3	4	13	19	20	18	19
BROWN 8 & 11	22	22	24	24	24	24	24	23	23	23	23	23	23	23	23	21	21	16	19	23	23	23	24	24
BROWN 9 & 10	22	22	24	24	24	24	24	23	23	23	23	23	23	23	22	20	20	13	17	24	24	24	23	23
TRIMBLE 5 - 10	19	19	19	19	20	19	19	19	19	19	19	18	19	18	17	8	5	1	2	6	16	19	16	18
CANE RUN 11	26	26	27	27	27	27	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27
HAEFLING	29	29	30	30	30	30	30	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
PADDYS RUN 11	25	25	26	26	26	26	26	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
PADDYS RUN 12	27	27	28	28	28	28	28	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26
PADDYS RUN 13	21	21	22	22	21	22	22	21	21	21	21	21	21	21	21	15	14	4	7	10	21	21	21	21
ZORN 1	28	28	29	29	29	29	29	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28

NOTES: 1 - Tyrone 3 was on inactive reserve status after 5/2011

^{2 -} Trimble 2 was commissioned in 1/2011

^{3 -} Brown 6 & 7, Brown 8 & 11, Brown 9 & 10, and Trimble 5 - 10 are grouped to reflect identical dispatch costs

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 39

Witness: Robert M. Conroy

- Q-39. In its most recent two-year case, Case No. 2010-00492¹, the roll-in of fuel costs into KU's base rates was approved using a "flash cut" approach, which resulted in an immediate change from its then-existing base fuel cost to its new base fuel cost, rather than a "transitional approach" in which the first month's fuel cost is an average of the old and new base fuel cost. KU also indicated its preference that any change in base rates be approved on a "bills rendered" basis rather than a "service rendered" basis. If the current FAC review results in changes to its base rates, does KU continue to prefer the same "flash cut" approach on a "bills rendered" basis as authorized in Case No. 2010-00492? Explain.
- A-39. Yes. The "flash-cut" or "single-step" approach to implementing a new base fuel cost simplifies the logistics of implementation. Utilization of the "single-step" approach allows KU to revise base rates only once in connection with the roll-in of a new base fuel cost whereas the "transitional" or "two-step" approach requires two consecutive base rate changes: (1) once for the average of the old and new base fuel costs, and (2) again for the new base fuel cost. KU's customers will not see any difference in their bills by using one approach over another, since any change in the base fuel cost is immediately reflected in the determination of the current expense month FAC billing factor. For ease of implementation and cost minimization, KU prefers the "flash-cut" or "single-step" approach to implementing a change in base fuel costs, with the implementation taking effect with bills rendered beginning with the first billing cycle in the second month following the month in which the Commission issues its Order in this proceeding.

¹ Case No" 2010-00492, An Examination of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company from November 1, 2008 through October 31, 2010 (Ky PSC May 31, 2011).

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 13, 2013

Case No. 2012-00552

Question No. 40

Witness: Robert M. Conroy

- Q-40. In its most recent rate case, Case No. 2012-00221², KU proposed to reflect a change to the FAC calculation. KU proposed to implement the use of total system losses in the FAC monthly calculation. This proposal was approved with the acceptance of the Settlement Agreement in that case.
 - a. Provide the aggregate effect it would have had on the monthly FAC filings if KU had been using total system losses in the FAC calculation during the period under review.
 - b. Provide the aggregate effect it would have had on the monthly FAC filings if KU had been using total system losses in the FAC calculation during the period under review excluding the months of the test year in that case.
 - c. State whether KU believes that an adjustment should be made to a future FAC filing to account for the aggregate effect identified in a. or b. above? If KU believes that no adjustment is necessary, explain.
- A-40. a. KU's aggregate change in fuel costs by using total system losses as a component of sales is estimated to be a net increase of \$3,783,075 for the entire two-year period under review.
 - b. KU's aggregate change in fuel costs by using total system losses as a component of sales is estimated to be a net increase of \$1,168,379 for the twelve months of November 2010 through March 2011 and April 2012 through October 2012.
 - c. No. KU included the appropriate adjustment to reflect both the change in fuel cost and the change in fuel revenues had total system losses been included as a component of sales in the FAC monthly calculations when establishing base rates in Case No. 2012-00221. Please see the supporting calculation for Exhibit 1, Reference Schedule 1.03 contained in Conroy Exhibit P3 in Case No. 2012-00221. The revision to base

² Case No. 2012-00221, Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates (Ky. PSC Dec. 20, 2012).

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Conroy

rates were effective January 1, 2013 and the revision to the FAC monthly calculations went into effect with the January 2013 expense month. Further, although the base rates in effect prior to January 2013 did not include an adjustment to reflect the inclusion of total system losses in the FAC, the base rates in existence appropriately reflected the FAC fuel costs and revenues as the FAC was being calculated and billed to customers. For these reasons, KU does not believe an adjustment to future FAC filings is necessary. However, KU has identified an issue with the reported energy in the monthly FAC filings for the expense months of April 2012 through January 2013 that will need to be corrected in a future monthly FAC filing. KU intends to make this correction when the February 2013 expense month filing is submitted in March 2013.