COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES	**)**	
COMPANY FOR AN ADJUSTMENT OF ITS	**)**	**CASE NO.**
ELECTRIC RATES AND FOR CERTIFICATES	**)**	**2016-00370**
OF PUBLIC CONVENIENCE AND NECESSITY	**)**	

RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO
THE FIRST SET OF DATA REQUESTS OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
DATED JANUARY 11, 2017

FILED: JANUARY 25, 2017

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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

Daniel K. Arbough

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 25th day of January 2017.

(SEAL)
Notary Public

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
~~My commission expires July 11, 2018~~
Notary ID # 512743

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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

Lonnie E. Bellar

Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 25th day of January 2017.

Judy Schooler (SEAL)

Notary Public

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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

Robert M. Conroy

Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 23rd day of January 2017.

Susan M. Watkins (SEAL)
Notary Public

My Commission Expires:

SUSAN M. WATKINS
Notary Public, State at Large, KY
My Commission Expires Mar. 19, 2017
Notary ID # 485723

VERIFICATION

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

The undersigned, **Christopher M. Garrett**, being duly sworn, deposes and says that he is Director – Rates for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, 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.

Christopher M. Garrett

Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 25th day of January 2017.

Judy Schooler (SEAL)
Notary Public

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
~~My commission expires July 11, 2018~~
Notary ID # 512743

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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

John P. Malloy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 25th day of January 2017.

Judy Schooler (SEAL)
Notary Public

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

VERIFICATION

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

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

Adrien M. McKenzie

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 13th day of January 2017.

Notary Public ___(SEAL)

My Commission Expires:

April 17, 2019

ROBERT LEE MARTINEZ
NOTARY PUBLIC STATE OF TEXAS
MY COMM. EXP. 4/17/2019
NOTARY ID 13019391-2

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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

Gregory J. Meiman
Gregory J. Meiman

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 15th day of January 2017.

Judy Schooler
Notary Public (SEAL)

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

VERIFICATION

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

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

Valerie L. Scott

Valerie L. Scott

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 25th day of January 2017.

Judy Schooler (SEAL)

Notary Public

My Commission Expires:

JUDY SCHOOLER

Notary Public, State at Large, KY

My commission expires July 11, 2018

Notary ID # 512743

VERIFICATION

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

The undersigned, **William Steven Seelye**, being duly sworn, deposes and states that he is a Principal of The Prime Group, LLC, 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.

W. Seelye

William Steven Seelye

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 20th day of January 2017.

Judy Schooler (SEAL)
Notary Public

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

VERIFICATION

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

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

David S. Sinclair
David S. Sinclair

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 25th day of January 2017.

Judy Schooler (SEAL)
Notary Public

My Commission Expires:
JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

VERIFICATION

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

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

John J. Spanos
John J. Spanos

Subscribed and sworn to before me, a Notary Public in and before said County and Commonwealth, this 19th day of January 2017.

(SEAL)
Notary Public

My Commission Expires:

February 20, 2019

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 1

Responding Witness: John J. Spanos

Q.1-1. Please provide the schedules contained on pages VI-4 through VI-9 of Exhibit JJS-KU-1 (Depreciation Study attached to Mr. Spanos' Direct Testimony) as well as all workpapers in support of those schedules in electronic format with all formulas intact.

A.1-1. The attached schedule sets forth pages VI-4 through VI-9 of Exhibit JJS-KU-1 in electronic format. Other workpapers are included in data request responses to the AG.

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

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 2

Responding Witness: John J. Spanos

Q.1-2. Refer to pages 10-1 1 of Mr. Spanos' Direct Testimony wherein he describes the "dismantlement component" added to the overall net salvage for each production facility. Refer also to pages VIII-2 and VIII-3 of Exhibit JJS-KU-l (Depreciation Study attached to Mr. Spanos' Direct Testimony).

a. Please describe and provide copies of all source documentation relied upon to determine that "the dismantlement or decommissioning costs for steam production facilities is best calculated at $40/KW of the assets subject to final retirement. The percentage for dismantlement of hydro and other production facilities is $ 10/KW of the assets surviving at final retirement with the exception of the combined facility which is $20/KW."

b. Please provide for each production facility the KWs utilized to calculate the "dismantlement component", the calculation of the "dismantlement component," and describe how that calculation was incorporated into the calculation of the net salvage component contained on pages VIII-2 and VIII-3 of Exhibit JJS-KU- 1. Provide all calculations if not provided in response to other requests for exhibits and workpapers in electronic format with all formulas intact.

c. At page 11 starting at line 9, Mr. Spanos states, "The current practice for LG&E includes a low level of terminal net salvage combined with the interim net salvage percentage. In this study, the methodology continues to advance to a more precise practice and is utilized by most utilities. The weighting of the interim and final net salvage by location establishes a more precise recovery pattern for each location." Please describe how the calculation of the overall net salvage percentage reflected in the approved depreciation rates differs from the calculation one in the new depreciation study other than the use of a lower level of terminal net salvage as part of current depreciation rates. Provide the calculations of the overall net salvage showing the interim and terminal net salvage components reflected in the approved depreciation rates and those proposed in this proceeding.

A.1-2.

a) The determination of the $/KW levels for dismantlement of generating facilities was based on numerous studies performed by engineering consulting firms that specialize in the dismantlement of generating facilities and an initial study performed and presented by the American Gas Association and Edison Electric Institute.

   Decommissioning cost estimates are extensive studies performed by experts in the field that establish the cost to complete each task of the demolition and then net the scrap value to determine the overall decommissioning cost. The cost breakdown for these studies is based on returning the site to a brownfield condition. These costs are then converted to a $/KW value based on the MWs of each unit or location. The estimates of decommissioning costs range from $20/KW to $150/KW with a very high percentage around the $40/KW to $50/KW level. Thus, $40/KW was utilized for KU facilities. Similar analysis was performed for hydro, other production and combined cycle facilities.

b) The attached schedule KU-KIUC-1-2.xlsx sets forth the calculation of the percentage of the dismantlement costs to the assets to be retired on a terminal basis. These percentages are utilized in the determination of the weighted net salvage percentage as set forth on pages VIII-2 and VIII-3 of the Exhibit JJS-KU-1.

c) The currently approved net salvage was determined based on a settlement that was not a calculated or analyzed based on costs to dismantle. The amount of 2% of terminal net salvage per unit or location was agreed upon in settlement in order to establish an amount to include in depreciation rates.

KENTUCKY UTILITIES

DECOMMISSIONING COSTS RELATED TO GENERATING UNITS

UNIT	ESTIMATED RETIREMENT YEAR	MW	ESTIMATED DECOMMISSIONING COSTS ($/KW)	TOTAL DECOMMISSIONING COSTS (CURRENT $)	TOTAL DECOMMISSIONING COSTS (FUTURE $)	ESTIMATED TERMINAL RETIREMENTS
(1)	(2)	(3)	(4)	(5)=(3)*(4)	(6)	(7)
STEAM						
SYSTEM LABORATORY	2040	0	40	0	0	(3,981,926)
TRIMBLE COUNTY	2066	335	40	13,400,000	48,388,905	(590,869,790)
BROWN 1	2023	106	40	4,240,000	5,295,179	
BROWN 2	2029	166	40	6,640,000	9,616,700	
BROWN 3	2035	411	40	16,440,000	27,612,326	
TOTAL BROWN				27,320,000	42,524,205	(903,057,104)
GHENT 1	2034	493	40	19,720,000	32,313,516	
GHENT 2	2034	490	40	19,600,000	32,116,882	
GHENT 3	2037	454	40	18,160,000	32,045,330	
GHENT 4	2038	487	40	19,480,000	35,233,981	
TOTAL GHENT				76,960,000	131,709,709	(2,544,166,674)
TOTAL STEAM				**117,680,000**	**222,622,819**	**(4,042,075,495)**
HYDRO						
DIX DAM	2041	26	10	260,000	506,428	(35,425,875)
TOTAL HYDRO				**260,000**	**506,428**	**(35,425,875)**
OTHER						
CANE RUN	2055	660	20	13,200,000	36,328,914	(288,106,178)
HAEFLING 1, 2 AND 3	2020	36	10	360,000	417,490	(3,985,290)
PADDY'S RUN 13	2031	74	10	740,000	1,125,998	(27,330,118)
BROWN 5	2031	57	10	570,000	867,322	
BROWN 6	2029	91	10	910,000	1,317,951	
BROWN 7	2029	91	10	910,000	1,317,951	
BROWN 8	2025	121	10	1,210,000	1,587,625	
BROWN 9	2031	121	10	1,210,000	1,841,158	
BROWN 10	2031	121	10	1,210,000	1,841,158	
BROWN 11	2026	121	10	1,210,000	1,627,315	
BROWN GAS PIPELINE	2031	0	10	0	0	
TOTAL BROWN				7,230,000	10,400,480	(229,538,287)
TRIMBLE COUNTY 5	2032	114	10	1,140,000	1,778,011	
TRIMBLE COUNTY 6	2032	114	10	1,140,000	1,778,011	
TRIMBLE COUNTY GAS PIPELINE	2034		10	0	0	
TRIMBLE COUNTY 7	2034	101	10	1,010,000	1,655,003	
TRIMBLE COUNTY 8	2034	101	10	1,010,000	1,655,003	
TRIMBLE COUNTY 9	2034	101	10	1,010,000	1,655,003	
TRIMBLE COUNTY 10	2034	101	10	1,010,000	1,655,003	
TOTAL TRIMBLE COUNTY				6,320,000	10,176,034	(190,892,260)
TOTAL OTHER				**27,850,000**	**58,448,916**	**(739,852,132)**

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 3

Responding Witness: John J. Spanos

Q.1-3. Please provide the schedules contained on pages VIII-2 and VIII-3 of Exhibit JJS-KU-1 (Depreciation Study attached to Mr. Spanos' Direct Testimony)) as well as all workpapers in support of those schedules in electronic format with all formulas intact.

A.1-3. The attached schedule sets forth pages VIII-2 and VIII-3 of Exhibit JJS-KU-1 in electronic format. Workpapers for this response are included in data request KIUC-1-2.

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

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 4

Responding Witness: John J. Spanos

Q.1-4. Refer to page 15, lines 1-6, of Mr. Spanos' Direct Testimony wherein he describes the appropriate service life for the newer technology meters recorded by the Company in Account 370.20, Meters — AMS. Mr. Spanos states, "The most consistent average life within the industry for new technology electric meters is 15 years, with a maximum life potential of 25 years", to justify his use of the 15-S2.5 survivor curve. Please provide copies of all studies, analyses, or reports relied on in support of this statement.

A.1-4. The attached schedule sets forth the average service life and survivor curve combination utilized by other electric utilities for new technology meters. These estimates are based on manufacturer's expectations of the assets as well as discussions with utility personnel. The list of companies are not matched to their estimates in order to maintain individual company agreements.

SURVIVOR CURVES FOR NEW TECHNOLOGY METERS

COMPANY	SURVIVOR CURVE
(1)	(2)
COMPANY 1	15-S2.5
COMPANY 2	15-S2.5
COMPANY 3	15-S2.5
COMPANY 4	15-S2.5
COMPANY 5	15-SQ
COMPANY 6	15-S2.5
COMPANY 7	15-S2.5
COMPANY 8	15-S2.5
COMPANY 9	15-S2.5
COMPANY 10	15-S2
COMPANY 11	15-S2.5
COMPANY 12	15-S2
COMPANY 13	15-S0.5
COMPANY 14	15-S2.5
COMPANY 15	15-S2.5
COMPANY 16	15-SQ
COMPANY 17	15-S2.5
COMPANY 18	15-S2.5
COMPANY 19	15-S3
COMPANY 20	15-S2.5
COMPANY 21	20-S2
COMPANY 22	12-S2
COMPANY 23	10-S3
COMPANY 24	15-S2.5
COMPANY 25	21-L0
COMPANY 26	20-S3
COMPANY 27	10-S3
COMPANY 28	20-R2.5
COMPANY 29	15-S3
COMPANY 30	20-S2.5
COMPANY 31	20-R5
COMPANY 32	15-S2.5
COMPANY 33	20-R5
COMPANY 34	14-R3

COMPANY NAME

PUBLIC SERVICE COMPANY OF OKLAHOMA
CENTRAL MAINE POWER COMPANY
POTOMAC ELECTRIC POWER COMPANY
COMMONWEALTH EDISON COMPANY
METROPOLITAN EDISON COMPANY
WEST PENN POWER COMPANY
BLACK HILLS COLORADO ELECTRIC UTILITY COMPANY, LP
IDAHO POWER COMPANY
KANSAS CITY POWER AND LIGHT
INDIANAPOLIS POWER & LIGHT
ARIZONA PUBLIC SERVICE COMPANY
DUQUESNE LIGHT COMPANY
JACKSON ENERGY COOPERATIVE
WISCONSIN PUBLIC SERVICE COMPANY
PPL ELECTRIC UTILITIES CORPORATION
NEVADA POWER COMPANY
SIERRA PACIFIC POWER COMPANY
ALLIANT ENERGY - WISCONSIN POWER & LIGHT
BALTIMORE GAS & ELECTRIC
UGI UTILITIES, INC.
BLACK HILLS POWER COMPANY
SOUTH CAROLINA ELECTRIC & GAS COMPANY
FLORIDA POWER & LIGHT COMPANY
DOMINION VIRGINIA POWER
AVISTA CORPORATION
CHEYENNE LIGHT, FUEL & POWER COMPANY
DUKE ENERGY OHIO
PORTLAND GENERAL ELECTRIC
MAINE PUBLIC SERVICE COMPANY
BANGOR HYDRO-ELECTRIC COMPANY
AMEREN ILLINOIS COMPANY
PECO ENERGY COMPANY
PENNSYLVANIA POWER COMPANY
CENTRAL VERMONT PUBLIC SERVICE COMPANY

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 5

Responding Witness: John J. Spanos

Q.1-5. Refer to pages 111-5 and 111-6 of Exhibit 115-KU-i (Depreciation Study attached to Mr. Spanos' Direct Testimony) and the discussion of life spans for combustion turbines. The study states that "Life spans of 30 to 37 years were estimated for the majority of combustion turbines. These life span estimates are typical for combustion turbines which are used primarily as peaking units."

a. Please describe and provide copies of all source documentation relied upon for this determination and the determination that the newer CT units should have a life span at the low end of the cited range, or 30 years.

b. Please explain the differences in the combustion turbine generating units considered to explain why the life span proposed for the majority of the CT units is 30 years while the proposed life spans for Brown Unit 9 and Brown Unit 10 are 37 and 36 years, respectively.

A.1-5.

a. The life spans for combustion turbines have been established and approved in past studies. These life spans are based on the operational practices of the units and the commonly utilized life span for similar facilities. These type of units are primarily peakers with numerous starts per year with very few hours of operations each start. Given how the CTs fit into the generation demands the overall life cycle is 30 years.

b. The proposed life spans of Brown Unit 9 and Brown Unit 10 is longer than the other units due to how the units are dispatched for utilization which established overhauls to occur at a longer period for those type of units.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 6

Responding Witness: John J. Spanos

Q.1-6. Refer to the present and proposed depreciation rates shown for steam and other production plant on the tabs KU Depr Rates and KU Proposed Depr Rates on the Excel spreadsheet titled Att_KU_PSC_1- 54_Sch_B. Provide the calculation of the net salvage percentage. At a minimum, show the terminal net salvage costs, the calculation of the terminal net salvage percentages, interim net salvage percentages, and the weighting of the interim and terminal net salvage percentages.

A.1-6. The attached schedule sets forth the development of the weighted net salvage utilized in the depreciation study. These percentages are set forth in KU_PSC_1-54_Sch_B-3.2F.

KENTUCKY UTILITIES COMPANY

TABLE 2. CALCULATION OF WEIGHTED NET SALVAGE PERCENT FOR GENERATION PLANT AS OF DECEMBER 31, 2015

		Terminal Retirements			Interim Retirements			Total		Estimated
	Account	Retirements ($)	Net Salvage (%)	Net Salvage ($)	Retirements ($)	Net Salvage (%)	Net Salvage ($)	Net Salvage ($)	Total Retirements	Net Salvage (%)
	(1)	(2)	(3)	(4)=(2)x(3)	(5)	(6)	(7)=(5)x(6)	(8)=(4)+(7)	(9)=(2)+(5)	(10)=(8)/(9)
	STEAM PRODUCTION PLANT									
	BROWN GENERATING STATION									
311	STRUCTURES AND IMPROVEMENTS	73,168,776	(5)	(3,658,439)	2,037,731	(30)	611,319	4,269,758	75,206,507	(6)
312	BOILER PLANT EQUIPMENT	721,019,912	(5)	(36,050,996)	63,259,291	(25)	15,814,823	51,865,818	784,279,204	(6)
314	TURBOGENERATOR UNITS	59,151,117	(5)	(2,957,556)	8,389,400	(10)	838,940	3,796,496	67,540,517	(6)
315	ACCESSORY ELECTRIC EQUIPMENT	43,406,360	(5)	(2,170,318)	1,495,824	(15)	224,374	2,394,692	44,902,184	(6)
316	MISCELLANEOUS POWER PLANT EQUIPMENT	6,310,939	(5)	(315,547)	639,169	(5)	31,958	347,505	6,950,108	(6)
	TOTAL BROWN GENERATING STATION	*903,057,104*		*(45,152,855)*	*75,821,416*		*17,521,414*	*62,674,269*	*978,878,519*	*(6)*
	GHENT GENERATING STATION									
311	STRUCTURES AND IMPROVEMENTS	137,535,090	(5)	(6,876,754)	7,120,409	(30)	2,136,123	9,012,877	144,655,498	(7)
312	BOILER PLANT EQUIPMENT	2,138,231,987	(5)	(106,911,599)	253,402,944	(25)	63,350,736	170,262,335	2,391,634,931	(7)
314	TURBOGENERATOR UNITS	135,959,227	(5)	(6,797,961)	35,640,375	(10)	3,564,037	10,361,999	171,599,602	(7)
315	ACCESSORY ELECTRIC EQUIPMENT	117,419,595	(5)	(5,870,980)	9,847,820	(15)	1,477,173	7,348,153	127,267,416	(7)
316	MISCELLANEOUS POWER PLANT EQUIPMENT	15,020,776	(5)	(751,039)	2,179,098	(5)	108,955	859,994	17,199,873	(7)
	TOTAL GHENT GENERATING STATION	*2,544,166,674*		*(127,208,334)*	*308,190,646*		*70,637,024*	*197,845,358*	*2,852,357,320*	*(7)*
	GREEN RIVER GENERATING STATION									
311	STRUCTURES AND IMPROVEMENTS	8,667,845	(10)	(866,785)	-	(30)	-	866,785	8,667,845	(10)
312	BOILER PLANT EQUIPMENT	2,624,701	(10)	(262,470)	-	(25)	-	262,470	2,624,701	(10)
314	TURBOGENERATOR UNITS	-	(10)	0	-	(10)	-	-	-	(10)
315	ACCESSORY ELECTRIC EQUIPMENT	646,150	(10)	(64,615)	-	(15)	-	64,615	646,150	(10)
316	MISCELLANEOUS POWER PLANT EQUIPMENT	425,881	(10)	(42,588)	-	(5)	-	42,588	425,881	(10)
	TOTAL GREEN RIVER GENERATING STATION	*12,364,577*		*(1,236,458)*	-		-	*1,236,458*	*12,364,577*	*(10)*
	PINEVILLE GENERATING STATION									
311	STRUCTURES AND IMPROVEMENTS	37,240	(10)	(3,724)	-	(30)	-	3,724	37,240	(10)
312	BOILER PLANT EQUIPMENT	236,468	(10)	(23,647)	-	(25)	-	23,647	236,468	(10)
314	TURBOGENERATOR UNITS	-	(10)	0	-	(10)	-	-	-	(10)
315	ACCESSORY ELECTRIC EQUIPMENT	-	(10)	0	-	(15)	-	-	-	(10)
316	MISCELLANEOUS POWER PLANT EQUIPMENT	-	(10)	0	-	(5)	-	-	-	(10)
	TOTAL PINEVILLE GENERATING STATION	*273,708*		*(27,371)*	-		-	*27,371*	*273,708*	*(10)*
	SYSTEM LAB									
311	STRUCTURES AND IMPROVEMENTS	1,047,781	0	0	55,175	(30)	16,553	16,553	1,102,956	(1)
312	BOILER PLANT EQUIPMENT	-	0	0	-	(25)	-	-	-	(1)
314	TURBOGENERATOR UNITS	-	0	0	-	(10)	-	-	-	(1)
315	ACCESSORY ELECTRIC EQUIPMENT	-	0	0	-	(15)	-	-	-	(1)
316	MISCELLANEOUS POWER PLANT EQUIPMENT	2,934,145	0	0	299,969	(5)	14,998	14,998	3,234,114	(1)
	TOTAL SYSTEM LAB	*3,981,926*		-	*355,145*		*31,551*	*31,551*	*4,337,071*	*(1)*
	STEAM PRODUCTION PLANT (CONT.)									
	TYRONE GENERATING STATION									
311	STRUCTURES AND IMPROVEMENTS	2,276,358	(10)	(227,636)	-	(30)	-	227,636	2,276,358	(10)
312	BOILER PLANT EQUIPMENT	702,556	(10)	(70,256)	-	(25)	-	70,256	702,556	(10)
314	TURBOGENERATOR UNITS	-	(10)	0	-	(10)	-	-	-	(10)
315	ACCESSORY ELECTRIC EQUIPMENT	24,679	(10)	(2,468)	-	(15)	-	2,468	24,679	(10)
316	MISCELLANEOUS POWER PLANT EQUIPMENT	86,033	(10)	(8,603)	-	(5)	-	8,603	86,033	(10)
	TOTAL TYRONE GENERATING STATION	*3,089,625*		*(308,963)*	-		-	*308,963*	*3,089,625*	*(10)*
	TRIMBLE COUNTY									
311	STRUCTURES AND IMPROVEMENTS	91,880,685	(8)	(7,350,455)	13,772,116	(30)	4,131,635	11,482,090	105,652,801	(13)
312	BOILER PLANT EQUIPMENT	403,063,218	(8)	(32,245,057)	206,502,714	(25)	51,625,678	83,870,736	609,565,931	(13)
314	TURBOGENERATOR UNITS	53,089,792	(8)	(4,247,183)	36,817,218	(10)	3,681,722	7,928,905	89,907,010	(13)
315	ACCESSORY ELECTRIC EQUIPMENT	36,593,894	(8)	(2,927,511)	11,978,182	(15)	1,796,727	4,724,239	48,572,076	(13)
316	MISCELLANEOUS POWER PLANT EQUIPMENT	6,242,202	(8)	(499,376)	2,127,308	(5)	106,365	605,742	8,369,510	(13)
	TOTAL TRIMBLE COUNTY	*590,869,790*		*(47,269,583)*	*271,197,538*		*61,342,128*	*108,611,711*	*862,067,328*	*(13)*
	TOTAL STEAM PRODUCTION PLANT	**4,057,803,405**		**(221,203,563)**	**655,564,744**		**149,532,117**	**370,735,680**	**4,713,368,149**	

KENTUCKY UTILITIES COMPANY

TABLE 2. CALCULATION OF WEIGHTED NET SALVAGE PERCENT FOR GENERATION PLANT AS OF DECEMBER 31, 2015

	Terminal Retirements			Interim Retirements			Total		Estimated
Account	Retirements ($)	Net Salvage (%)	Net Salvage ($)	Retirements ($)	Net Salvage (%)	Net Salvage ($)	Net Salvage ($)	Total Retirements	Net Salvage (%)
(1)	(2)	(3)	(4)=(2)x(3)	(5)	(6)	(7)=(5)x(6)	(8)=(4)+(7)	(9)=(2)+(5)	(10)=(8)/(9)
HYDRAULIC PRODUCTION PLANT									
DIX DAM									
331 STRUCTURES AND IMPROVEMENTS	698,416	(1)	(6,984)	129,187	(5)	6,459	13,443	827,603	(3)
332 RESERVOIRS, DAMS AND WATERWAYS	19,848,593	(1)	(198,486)	2,037,053	(25)	509,263	707,749	21,885,646	(3)
333 WATER WHEELS, TURBINES AND GENERATORS	13,599,509	(1)	(135,995)	459,387	(25)	114,847	250,842	14,058,896	(3)
334 ACCESSORY ELECTRIC EQUIPMENT	938,404	(1)	(9,384)	383,284	0	-	9,384	1,321,689	(3)
335 MISCELLANEOUS POWER PLANT EQUIPMENT	157,108	(1)	(1,571)	159,839	(5)	7,992	9,563	316,947	(3)
336 ROADS, RAILROADS AND BRIDGES	183,844	(1)	(1,838)	50,665	0	-	1,838	234,509	(3)
TOTAL DIX DAM	*35,425,875*		*(354,259)*	*3,219,415*		*638,561*	*992,820*	*38,645,290*	*(3)*
TOTAL HYDRAULIC PRODUCTION PLANT	**35,425,875**		**(354,259)**	**3,219,415**		**638,561**	**992,820**	**38,645,290**	
OTHER PRODUCTION PLANT									
BROWN CTS									
341 STRUCTURES AND IMPROVEMENTS	10,729,190	(5)	(536,460)	1,274,581	0	-	536,460	12,003,771	(7)
342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES	12,737,484	(5)	(636,874)	2,187,292	(5)	109,365	746,239	14,924,776	(7)
343 PRIME MOVERS	154,519,736	(5)	(7,725,987)	42,783,190	(15)	6,417,479	14,143,465	197,302,927	(7)
344 GENERATORS	29,533,958	(5)	(1,476,698)	1,924,962	(10)	192,496	1,669,194	31,458,920	(7)
345 ACCESSORY ELECTRIC EQUIPMENT	18,460,395	(5)	(923,020)	1,597,332	(10)	159,733	1,082,753	20,057,727	(7)
346 MISCELLANEOUS POWER PLANT EQUIPMENT	3,557,524	(5)	(177,876)	784,782	0	-	177,876	4,342,306	(7)
TOTAL BROWN CTS	*229,538,287*		*(11,476,914)*	*50,552,139*		*6,879,073*	*18,355,987*	*280,090,426*	*(7)*
CANE RUN CCS									
341 STRUCTURES AND IMPROVEMENTS	35,590,778	(13)	(4,626,801)	11,304,695	0	-	4,626,801	46,895,474	(12)
342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES	99,261,761	(13)	(12,904,029)	35,688,318	(5)	1,784,416	14,688,445	134,950,079	(12)
343 PRIME MOVERS	37,556,393	(13)	(4,882,331)	52,316,944	(15)	7,847,542	12,729,873	89,873,337	(12)
344 GENERATORS	94,945,376	(13)	(12,342,899)	18,444,830	(10)	1,844,483	14,187,382	113,390,206	(12)
345 ACCESSORY ELECTRIC EQUIPMENT	20,740,207	(13)	(2,696,227)	5,546,246	(10)	554,625	3,250,851	26,286,453	(12)
346 MISCELLANEOUS POWER PLANT EQUIPMENT	11,662	(13)	(1,516)	9,403	0	-	1,516	21,066	(12)
TOTAL CANE RUN CCS	*288,106,178*		*(37,453,803)*	*123,310,436*		*12,031,065*	*49,484,868*	*411,416,614*	*(12)*
HAEFLING CTS									
341 STRUCTURES AND IMPROVEMENTS	286,343	(10)	(28,634)	5,109	0	-	28,634	291,452	(10)
342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES	448,833	(10)	(44,883)	23,283	(5)	1,164	46,048	472,117	(10)
344 GENERATORS	2,379,022	(10)	(237,902)	303,114	(10)	30,311	268,214	2,682,136	(10)
345 ACCESSORY ELECTRIC EQUIPMENT	776,732	(10)	(77,673)	39,531	(10)	3,953	81,626	816,263	(10)
346 MISCELLANEOUS POWER PLANT EQUIPMENT	94,360	(10)	(9,436)	10,631	0	-	9,436	104,991	(10)
TOTAL HAEFLING CTS	*3,985,290*		*(398,529)*	*381,669*		*35,429*	*433,958*	*4,366,959*	*(10)*
PADDY'S RUN CTS									
341 STRUCTURES AND IMPROVEMENTS	1,954,413	(4)	(78,177)	181,890	0	-	78,177	2,136,303	(6)
342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES	1,757,935	(4)	(70,317)	239,156	(5)	11,958	82,275	1,997,091	(6)
343 PRIME MOVERS	15,192,425	(4)	(607,697)	4,366,452	(15)	654,968	1,262,665	19,558,877	(6)
344 GENERATORS	5,216,426	(4)	(208,657)	234,123	(10)	23,412	232,069	5,450,549	(6)
345 ACCESSORY ELECTRIC EQUIPMENT	2,318,863	(4)	(92,755)	180,787	(10)	18,079	110,833	2,499,651	(6)
346 MISCELLANEOUS POWER PLANT EQUIPMENT	890,056	(4)	(35,602)	199,494	0	-	35,602	1,089,550	(6)
TOTAL PADDY'S RUN CTS	*27,330,118*		*(1,093,205)*	*5,401,903*		*708,417*	*1,801,621*	*32,732,021*	*(6)*
TRIMBLE COUNTY CTS									
341 STRUCTURES AND IMPROVEMENTS	19,621,567	(5)	(981,078)	2,124,362	0	-	981,078	21,745,929	(7)
342 FUEL HOLDERS, PRODUCERS AND ACCESSORIES	6,617,619	(5)	(330,881)	1,088,450	(5)	54,422	385,303	7,706,068	(7)
343 PRIME MOVERS	123,899,671	(5)	(6,194,984)	43,179,506	(15)	6,476,926	12,671,910	167,079,177	(7)
344 GENERATORS	18,599,425	(5)	(929,971)	927,703	(10)	92,770	1,022,742	19,527,129	(7)
345 ACCESSORY ELECTRIC EQUIPMENT	22,071,826	(5)	(1,103,591)	1,809,929	(10)	180,993	1,284,584	23,881,755	(7)
346 MISCELLANEOUS POWER PLANT EQUIPMENT	82,152	(5)	(4,108)	15,543	0	-	4,108	97,696	(7)
TOTAL TRIMBLE COUNTY CTS	*190,892,260*		*(9,544,613)*	*49,145,494*		*6,805,112*	*16,349,725*	*240,037,753*	*(7)*
TOTAL OTHER PRODUCTION PLANT	**739,852,132**		**(59,967,064)**	**228,791,641**		**26,459,095**	**86,426,159**	**968,643,773**	
GRAND TOTAL	**4,833,081,413**		**(281,524,886)**	**887,575,799**		**176,629,773**	**458,154,659**	**5,720,657,212**	

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 7

Responding Witness: John J. Spanos

Q.1-7. Please provide a copy of all notes drafted by Mr. Spanos and/or his colleagues and all other workpapers and source documents relied on but not previously supplied in response to the Commission's MFR or Staff First Set.

A.1-7. All notes and source documents have been previously supplied in response to the Commission's MFR or Staff First Set of questions as well as the data requests from the AG.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 8

Responding Witness: John P. Malloy / John J. Spanos

Q.1-8. Please provide the Companies' estimated remaining service life for the SAP CCS as of December 31, 2015. Is it the Companies' plan to retire the CCS in mid-2019? If not, then what is the expected retirement date of the CCS? Provide a copy of all support for your response, including a copy of all documents that address the timeline and upgrade schedule for the CCS and its ultimate retirement and replacement. If none, then please so state.

A.1-8. As of December 31, 2015, the CCS system had been in place since April 2009, 6+ years of a 10 year asset life cycle. An upgrade to the system began in early 2016 and will be installed mid-2017. Therefore the new asset life will be 10 years from 2017 to 2027. The mid-term IT plan is to upgrade the system over the 2021 and 2022 timeframe. There are no current plans to replace the CCS system.

The support for the original 10 year CCS life can be found at KU in Case No. 2012-00221, KU_Direct_Testimony_All, John J Spanos Testimony, Schedule III-4. The support for the 10 year CCS life extension can be found at Spanos Testimony, Exhibit JJS-KU-1, Page 54. The testimony of Mr. Spanos is available at: http://psc.ky.gov/pscecf/2012-00221/rick.lovekamp%40lge-ku.com/06292012/KU_Direct_Testimony_-_All.pdf.

For the timeline and upgrade schedule, see attached, which is being filed under seal pursuant to a Petition for Confidential Protection. The Current SAP Upgrade is denoted as "SAP – CRM/ECC Upgrade" and the future upgrade is denoted as "SAP HANA Upgrade."

CONFIDENTIAL

Customer Service

in thousands

variance in (red) designates an unfavorable increase

Original 2017 BP Amounts

Projects	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total
[redacted]					
SAP CRM/ECC Upgrade	$ 9,552	$ -	$ -	$ -	$ -
[redacted]					
SAP HANA Upgrade	$ -	$ -	$ -	$ -	$ 4,000
[redacted]					

CONFIDENTIAL INFORMATION REDACTED

CONFIDENTIAL

Projects	2017 Total	2018 Total	2019 Total	2020 Total	2021 Total
[redacted]					
[redacted]					
[redacted]					

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 9

Responding Witness: John J. Spanos / Lonnie E. Bellar

Q.1-9. Please provide the probable retirement dates used for each of the Company's generating units and the source documents relied on for this purpose. Identify the Company witness, other than Mr. Spanos, who provided and can testify as to the probable retirement dates.

A.1-9. The Company does not assign retirement dates to its generating units, however, probable retirement dates are projected in order to calculate depreciation based on a concurrent retirement of assets. See also the Company's response to AG 1-193 and 1-194. Concerning the second part of the request, please see the "Responding Witness" line above.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 10

Responding Witness: Lonnie E. Bellar / Robert M. Conroy

Q.1-10. Refer to page 16 of 219 of 807 KAR:001 Section 16(7)(c), which shows the proposed demolition schedules for the Company's retired generating plants.

a. Please describe the present status of each of the retired plants, including the extent of facility decommissioning, dismantlement, and site remediation to date.

b. Please describe the full extent of the planned dismantlement and site remediation for each of the retired plants.

c. Please identify each statute, regulation, and/or rule that requires the demolition of each of the retired plants and explain in layman's terms why it requires dismantlement and site remediation between now and 2022 as opposed to maintain the present status for the indefinite future or until there are definitive site development plans.

d. Provide the year of retirement for each of the retired plants.

e. Please provide a copy of the Company's business case and/or all other economic and/or other studies that support the Company's decision to proceed with demolition.

f. Please provide the Company's cost estimates to demolish each of the retired plants as well as all underlying studies and documentation.

g. For each retired plant, indicate whether the Company will proceed with demolition if the cost is not included in the revenue requirement.

h. Please provide the Company's demolition cost estimate for each of the retired plants, including all supporting documentation.

A.1-10.

a. Green River - the facility has undergone decommissioning activities since its recent retirement in 2015. Much of the oils/lubricants in piping and transformer oils have been drained and disposed of, as well as the power to the facility has been minimized to specific security/access lighting, heating of specific areas, sump pump(s) for flood control and substation controls. The various tanks are drained and substantial ash removed from systems. In addition to the decommissioning activities, in order to minimize safety risk and liabilities from trespassers to the site, exterior structures such as the coal handling building and conveyors, wet flue gas desulfurization system and chimney, and lime storage structures have been demolished.

   Pineville – the facility was decommissioned years ago. No demolition activities have been performed in the last several years. The facility has some temporary barricades installed around portions of the exterior of the power block building as a safety precaution due to spalling brick and mortar from the structure.

   Tyrone - the site has had similar decommissioning activities performed as Green River related to draining of oils and the removal of stored liquids from the site. No demolition activities have occurred and the site is managed to maintain a safe exterior against trespassers.

b. Green River - the planned demolition that remains is the power station remaining buildings consisting substantially of the power block building and chimneys that were in service prior to the construction of the wet flue gas desulfurization system. The engineering for the abatement and dismantlement of the power block is in progress and will result in a statement of work package consistent with those of Paddys Run and Cane Run. Lessons learned from Cane Run and Paddys Run will be incorporated.

   Pineville - the engineering for the abatement and dismantlement of the site has not started. The eventual statement of work package will be consistent with those of Paddy's Run, Cane Run and any other demolition statement of work packages developed prior to Pineville. Lessons learned from Cane Run and Paddy's Run will be incorporated into the statement of work.

   Tyrone - the engineering for the abatement and dismantlement of the site has not been completed and will result in a statement of work package consistent with those of Paddys Run, Green River and Cane Run. Lessons learned from Cane Run and Paddy's Run will be incorporated into the statement of work.

c. KU is not aware of a statute, regulation, and/or rule that requires the demolition of these facility structures. The demolitions are being performed to eliminate on-going maintenance and capital cost associated with these unmanned structures. Regulations do require broken windows from vandalism and weather decay be maintained. In order to prevent interior equipment and facilities from being degraded from weather, the exterior sidings, brick/mortar and roofing systems need maintenance or replacement to protect them from the weather or infestation from pest such as mice, rates, wasps and bees. In addition to the savings of future maintenance capital and O&M by demolishing the structures, on-going maintenance mitigation due to acts of vandalism will be eliminated along with the elimination of risk to the public's safety, facility flood damage, and other liabilities associated with unsecured and unmanned facilities that the public could access from the public Kentucky waterways that these facilities are located on.

d. The Green River station was retired in 2015, Pineville in 2002 and Tyrone in 2013.

e. Business cases have not yet been prepared for the Green River, Tyrone or Pineville demolition projects. The plan has been to complete the demolition statement of work studies, bid the demolition work and then prepare business cases as part of the project and demolition contract award process. As stated in (c) above, the demolition of these structures eliminate future maintenance expenses and capital required to keep the structures weather protected and safe to the public, as well as eliminates the Company's exposure to public safety risk from trespassers, eliminates the need to maintain flood control to the facilities, and greatly reduces liability from other acts of vandalism or weather impacts such as high winds, tornadoes, ice damage, etc.

f. See attached conceptual phase draft reports dated July 17, 2015 for Pineville and Tyrone. Green River's estimate is based upon a volumetric calculation of Paddys Run.

g. The Company has included the proposed demolition costs because it believes it is prudent for safety reasons to demolish the facilities. If the Commission believes it is not prudent and disallows the recovery of any or all of those costs, the Company will have to reevaluate how to proceed.

h. Please see the response to (f) above.

Pineville Generating Station
Demolition Consulting - Conceptual Phase Study

Draft Report

DRAFT

Prepared by:

amec foster wheeler

11003 Bluegrass Parkway
Suite 690
Louisville, KY 40299

July 17, 2015

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APPENDICES

APPENDIX 1 – Order of Magnitude Cost Estimate

- HBM and soil investigation cost estimate
- Demolition cost estimate
- Hazardous building material abatement cost estimate
- Implementation phase planning

APPENDIX 2 - FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Layout Maps and Plot Plans
- Figure 3 Cross Section of Main Powerhouse
- Figure 4 General Cross Sections of FPS

APPENDIX 3 - PHOTO LOG

APPENDIX 4 – SCHEDULE

APPENDIX 5 - OPTION 3 STAKEHOLDERS AND PERMITS

DRAFT

1.0 PROJECT BACKGROUND

Louisville Gas and Electric Company (LG&E) commissioned Amec Foster Wheeler Environment & Infrastructure, Inc. to perform the *Pineville Generating Station-Demolition Consulting-Conceptual Phase Study.* The final Request for Proposal (RFP) dated January identified the following key objectives of the project:

1) Prepare a conceptual project plan(s),
2) Identify viable options from Mothballing to complete demolition and
3) Prepare estimate(s) for options presented

Amec Foster Wheeler examined several feasible options for disposition of the former coal powerhouse complex at Pineville Station, including removal of hazardous building materials (HBMs), along with various scenarios of demolition. Amec Foster Wheeler engaged in iterative discussions with LG&E during the fall of 2014 and winter spring of 2015. The alternative project paths considered included two main options:

1. **Mothball Structures:** Physical hazards would be addressed, but the main structure would remain in place. This option would reduce risks associated with hazardous materials and worker safety by maintaining the main plant and any associated structural systems or hazardous materials. Limiting access and removing ancillary structures reduces the risk to errant entrants-trespassers. Removal of ancillary structures and associated HBMs would remove risks posed by long term presence of easily accessible smaller structures, but would not eliminate risks associated with main plant structural systems and trespassers.
2. **Demolition with On-site Disposal of clean concrete and masonry and clean imported fill:** The HBMs would be removed and deconstruction would include removal of all structures to a depth of 3 feet below the ground surface. Non-hazardous, non-salvageable building materials such as clean masonry and concrete materials would be crushed on-site and used as backfill to the maximum extent feasible.

For the *Pineville Generating Station-Demolition Consulting-Conceptual Phase Study*, Amec Foster Wheeler was tasked to evaluate only the inactive portion of the property on the west side of the active switch yard and coal power plant-associated structures. Amec Foster Wheeler evaluated the following key aspects or issues which significantly influence project strategy regardless of the project path selected:

1. **Flood Protection System (FPS).** Any action or option which results in alteration of the existing Flood Protection System must be approved through the federal (Section 408) permitting process to meet the current design standards of the U.S. Army Corps of Engineers (USACE). and any additional standards imposed by the owner.
2. **Environmental, Health, and Safety Aspects,** including physical hazards, asbestos, lead-based paint, and other hazardous building materials require careful management to minimize risks to site workers and the public while complying with appropriate regulatory permits and agency requirements to achieve a final, clean closure of the property. Current conditions of the site present safety and environmental risks associated with falling objects, deteriorated structures, potential trespassers, and the potential for environmental releases.

3. **Deconstruction** of the structures will include careful sequencing to achieve safe removal and off-site disposal and/or salvage of building materials. The screen house structures will be demolished to the higher of the normal Cumberland River pool or current water level at the time of demolition. No underwater deconstruction has been included in the cost estimates. The backfill used to return the site to grade must meet FPS design specifications.

The Request for Change Order required submittal of draft and final reports which include the following specific elements (*italics*). Each scope item is further addressed in detail in the below-referenced sections of this report:

- *Assessment of environmental issues (Section 4.0)*
- *Assessments of current site conditions and likely risks (Section 2.0)*
- Amec Foster Wheeler *reviewed existing hazardous materials files and KDWM information*
- *Amec Foster wheeler shall specify what testing will be necessary during the Hazardous Building Material Survey phase.*
- *Appropriate remediation costs (order of magnitude) for any suspect hazardous materials (Section 4.0, Appendix 1).*
- *Assessment of impacts to adjoining neighborhoods, properties, etc. from things such as demolition, impact on traffic patterns (Section 4.0).*
- *Identify specific local, state, federal agencies and other stakeholder groups that LG&E will need to interact with as part of this project, such as the US Army Corps of Engineers, the EPA, Kentucky Division of Water Management, etc. Potentially interact with these agencies identified as required to develop a concept (Appendix 5).*
- *Assess and prepare a list of permits, inclusive of schedule requirements for the permits, required to implement ultimate plan (Section 4.0, Appendix 5).*
- *Identify project schedule (Appendix 4).*

The order-of-magnitude costs were developed for the HBM abatement, deconstruction, and FPS concerns according to the two options described above. These costs do not include:

- Removal or abandonment of structures below the Cumberland River water level.
- Reconfiguration of Power facilities currently contained in the facility whose serviceability will survive demolition

The ROM pricing for the two options (**Appendix 4**) includes order-of-magnitude cost estimates for each option. Estimated order-of-magnitude costs may vary significantly from the actual costs dependent on a number of factors including competition, disposal, season, insurance, salvage material and metal values, and finalized scope of work, etc. These figures have been derived from Amec Foster Wheeler experience and recently secured pricing for the Paddy's Run Plant Demolition Project. These limitations should be considered during budget formulation.

Additional study is recommended to further define the scope and costs associated with abatement of HBMs, FPS alterations, deconstruction and salvage of building materials, as well as to facilitate the project schedule by completing certain preliminary planning tasks. A list of implementation phase planning activities and durations is included as a gant chart in **Appendix 4**.

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2.0 SITE DESCRIPTION

In 1924, KU built its first coal-fired, steam-generating plant north of Pineville, Kentucky, with an output of 30,000 kilowatts.

Pineville Station is an approximately 40-acre property located in an industrial area at US 25 East in Four Mile, on the bank of the Cumberland River (**Figure 1**).

The property has an active switching station located on the east side of the levee and a former coal powerhouse complex along and on the west side of the levee (**Figure 2A**).

The former powerhouse complex was developed in 1924. Power units were added until 1954 when the current 35MW unit was installed which still exists. The original boilers have been removed. The plant was retired in 2001.
The structural and mechanical systems are in fairly good shape as the building envelop is largely intact.

The powerhouse structures are integral to the Flood Wall system, as detailed in Section 5 of this report and on Figures 2 and 3.

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3.0 HEALTH & SAFETY

Key health and safety aspects such as physical hazards, asbestos, lead, and other HBMs require careful management to minimize risks to site workers and the public while complying with appropriate regulatory provisions and agency requirements.

Physical hazards, including leaking roofs, deteriorated metal grating and plates in floor openings, mezzanines, and stairs, falling brick veneer & broken glass, over time,increase LG&E's liability in the form of risks to building entrants (authorized and unauthorized) as well by increasing the ultimate cleanup costs by allowing water infiltration to damage building materials and structures. Maintaining the building envelope ensures that degradation over time will be minimized. It is expected, however that even well maintained buildings may incur mold growth and some deterioration of insulation, paint, etc. when the building space is not heated or ventilated. Periodic building monitoring to identify needed maintenance will help to prevent maintenance issues from becoming environmental liabilities. Additionally, appropriate site security and access control measures should be employed to reduce exposure for site workers and potential trespassers.

HBMs, including presumed asbestos and lead-based paints are currently in fair condition. Exposure of building occupants to airborne HBMs is not a significant concern.

Other health and safety concerns for abatement and deconstruction projects include, but are not limited to: exposure to heat/cold, bird droppings, and wet conditions; working at heights; heavy equipment operation; electrical work; hot work; and portable powered tools.

Throughout the abatement and deconstruction phases of the project, strict safety rules, including those addressed in LG&E's Passport Safety Program should be employed to minimize the exposure of workers to the site hazards. An approved site-specific health and safety plan should be implemented by all contractors and site workers.

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4.0 ENVIRONMENTAL

Key environmental aspects include asbestos, lead, protection of the natural environment, and others. Complying with appropriate regulatory provisions and agency requirements is of paramount importance. Anticipated environmental permits and anticipated timelines are listed in **Appendix 5**.

A review of available LG&E archives and Kentucky Department of Waste Management information about the facility revealed the following;

<u>RCRA Summary</u>

In 1980, the facility registered as a hazardous waste generator with the USEPA. According to the initial application, the facility generated the following wastes annually: 900 pounds of spent carbon (K054), 400 pounds of corrosive waste (D002), and 100 pounds of ignitable waste (D001). According to information submitted with the application, corrosive wastes were generated when the facility cleaned boilers with acid based cleaners. In 1983 the facility's hazardous waste generator identification number was put in suspense for non-generation of hazardous waste. In 1993, the facility's permit was reactivated and registered as a limited quantity generator of waste petroleum naphtha (D001, 400 pounds per year). The facility was a limited quantity generator from 1993 to 1996.

On March 12, 1996 a RCRA inspection was conducted which indicated no violations were observed. According to the inspection report, the facility accumulated a 55-gallon drum of used oil/fuel mixed with waste parts washer fluid over a 6 month period. When full, the drum contents were analyzed prior to burning the waste in the facility boiler.

In 1997, the facility's status changed to a conditionally exempt small quantity generator of waste petroleum naphtha. In 2000, various waste streams were added to the permit including waste paints/solvents, paint solids, flammable solids, lead contaminated solids, and mercury contaminated solids and liquids. In 2012, the facility requested to be removed from the Hazardous Waste Handlers list stating that the plant was retired in 2002/2003 after a generator explosion.

The occurrence of this explosion should be investigated to determine if regulated materials were impacted/spread by this explosion. This history should be further developed to assure that future investigations address this appropriately. The remainder of the RCRA records summary is not notable and appear to present no or little risk for environmental liability.

<u>UST Summary</u>

In 1986 the facility submitted a Notification for Underground Storage Tanks to the KDWM. The notification listed the presence of one 15,000 gallon steel UST installed in 1951 and used to store diesel. In 1989, the facility submitted an amended form indicating that the UST was exempt and used to store No. 2 fuel oil.

This tank and surrounding soils should be investigated to confirm that it has been properly closed and that it has not impacted soil or groundwater.

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<u>Stormwater</u>

According to Division of Water compliance inspections, post shutdown of the facility in 2002 the facility only had one discharge point on the property from the ash treatment basin (ATB) into the Cumberland River. The ATB was originally designed for 6 acres but according to a 2008 inspection was only holding about 1 acre of water. Water from the basement of the powerhouse was pumped into an oil water separator and then into the ATB. Wastewater inspection forms seem to indicated that the oil water separator (called oil holding tank in the inspection reports) is 40'x10'x20' in size.

An investigation of the OWS and soil sampling conducted around this OWS should be performed.

<u>Asbestos Summary</u>

A log listing asbestos removal projects as early as 1984 is available; however, the log is not detailed on the exact location of each removal project (removals likely done as necessary for maintenance work around valves and piping and as necessary when insulation became damaged). In 1991, a notification was submitted for removal of asbestos from the top three levels of a facility boiler: Unit Number 3, Boiler Number 6 using a full enclosure.

In 1993 a notification was submitted for removal of asbestos from the generating station fan floor, evaporator floor and basement. The notification indicated asbestos would be removed from the evaporator, #4 heater, I.D. Fan, ejector piping and primary air fan ductwork and housing using glove bags and full enclosure methods.

In 1994 a notification was submitted for removal of asbestos from the generating station, main floor and basement. The notification indicated asbestos would be removed from the #1 and #2 heater area, forced draft area and duct to I.D. fan.

A comprehensive Hazardous Building Material survey should be completed as part of the Mothball or demolition planning.

Asbestos is the most significant HBM present in the powerhouse complex structures, confirmed by previous documentation. However, insufficient information exists to determine type and extent of materials. The current EPA regulation for the removal of asbestos in buildings, the National Emission Standard for Hazardous Air Pollutants (NESHAP, 40 CFR 61, Subpart M) requires regulated ACMs be properly removed prior to performing renovation and demolition activities which would disturb them. The Commonwealth of Kentucky, Department for Environmental Protection, Division of Air regulates asbestos activities through the issuance of permits and oversight of abatement activities. A licensed Asbestos Designer should develop ACM abatement specifications to address the scope of removal work, regulatory requirements, notification procedures, air sampling requirements and other pertinent information.

Asbestos removal should be monitored to ensure no asbestos is released into ambient air. During enclosed asbestos removals, a licensed independent or 3rd party consultant should perform monitoring during the abatement and perform clearance air testing prior to the removal of the containment/enclosure barriers. If concealed ACM is later observed during demolition activities as access is gained to previously inaccessible areas, it will be necessary to investigate and collect bulk samples of each potential ACM in order to confirm the presence or absence of asbestos

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content. Inaccessible locations include: inside wall cavities or other finishing/ structural/architectural materials; above fixed ceiling systems; inside mechanical systems, boilers, ducts, equipment, or manufacturing/production equipment (e.g. air handling units, ductwork, etc.); and areas that were previously unsafe to access (including excessive heights, confined spaces, etc.).

Amec Foster Wheeler recommends a more comprehensive inventory of hazardous materials be completed to confirm the full scope of environmental remediation and associated costs. Potential additional hazardous materials and environmental conditions which should be addressed include:

- Lead-based paint (LBP) in structural and equipment coating systems.
- Mercury-containing equipment such as switches, manometers, etc.
- Polychlorinated biphenyls (PCBs) in ballasts, equipment, and elastomeric materials. The EPA generally regulates the handling and disposal of PCBs in building materials above 50 mg/kg.
- Radioactive sources.
- Chlorofluorocarbon (CFC) containing equipment; refrigeration equipment, canisters, etc.
- Duct, tank, trench, pit, and pipe residues; dusts, liquids, etc. where accessible.
- Contaminated soils; associated with spills, underground petroleum tanks, etc.
- Miscellaneous containers of unknown chemicals and hazardous substances.
- Characterize concrete and masonry for salvage and on or off-site reuse in lieu of disposal.

HBMs should be identified, characterized, removed and disposed off-site in accordance with local, state, and federal regulations. Amec Foster Wheeler estimated the cost of asbestos removal and other HBMs based on experience with facilities of a similar size and age. No materials have been sampled as part of this conceptual study. All but one of the original boilers have been removed. The cost estimate for removal will be updated after materials are properly characterized and quantified in a subsequent hazardous building material survey. A more extensive evaluation of HBMs and HBM quantities will further refine the cost estimate.

Depending on the final FPS alteration permit and/or funding mechanisms, a National Environmental Policy Act (NEPA) review of certain aspects of the project may be required. This could include preparation of an Environmental Assessment or other NEPA document, including examining the historical value of the property, noise impacts, air quality impacts, water quality impacts, etc.

The estimated order-of-magnitude costs and assumptions for implementation of additional environmental planning, permitting, and hazardous materials assessments are also presented in **Appendix 1**.

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5.0 FLOOD PROTECTION SYSTEM

Flood and Levee Protection: Amec Foster Wheeler search for a Levee District but found none for Bell County. How, an original construction drawing indicates that the power block building serves as part of a flood wall. We presume this is to provide protection of the Substation facility. LG&E must determine if portion of the Power Block building wall must remain intact and stabilized as part of the demolition project. Alternately the wall could be removed and replaced if necessary. Our conceptual cost table does not include any additional engineering or construction fees for Flood Protection.

6.0 DECONSTRUCTION

The Pineville Station powerhouse complex structures consist mainly of steel beam construction, with brick, and metal sheeting facades, built-up roofs, and concrete reinforcements. Below-grade or basement walls and floor slabs are steel-reinforced concrete. Slabs and walls rest on grade beams and vertical pilings. Process equipment, including boilers, tanks, piping, pumps, etc. are mounted on steel and concrete structures throughout the foundation, most of which will be removed for salvage during or following asbestos abatement activities. **Figure 3** provides cross-section details of the main powerhouse complex structures.

Option 1: Mothballing the Main Plant with demolition of ancillary structures. Under option 1 the main plant building envelop is secured and maintained for a period of time (years) to defer total remediation and demolition costs. Ancillary structures such as storage sheds, screen house, conveyor system remnants, etc. are removed to grade with subsurface voids filled with processed masonry and/or brick and stabilized with a surface cap of flowable fill and/or soil. This option involves the repair and maintenance of building envelop systems such as roofing masonry joints and window. Basement sumps are kept operational to remove stormwater from the main plant basement. If the building is not heated provisions should be made to ensure that operating drainage pipes do not accumulate water when sumps are not operating to avoid freeze thaw pipe bursts during extreme cold weather.

Demolition of ancillary structures provides for complete removal and on-site disposition of the ancillary building structures, down to the basement slab. Walls will be removed to 3 feet below grade. Walls will be removed to lower elevations where final grade is planned to be less than current grade and/or to facilitate natural drainage in the direction of the Cumberland River. Foundations and foundation piling will remain provided they are below planned finished grade. Subsurface structures associated with the water intake and effluent structures below the water table are also assumed to remain. These structures are not likely to affect future site development other than new port-related facilities and are not expected to be a hazard to navigation. If future development plans include waterfront structures, then deconstruction of those structures and resultant costs could be addressed at that time.

Conventional deconstruction, or demolition, with continual separation of salvageable materials will be the most cost effective method of removing these structures. The project is expected to follows the below typical sequence, however, some tasks may be completed simultaneously and may be subject to change based on levee alteration permit requirements:

- Hazardous Building Material Surveys, Material Quantification
- Development of Project Drawings and Specifications
- Develop Mothball Plan and define work packages needed

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- Develop RFP
- Qualify Contractors
- Solicit Proposals
- Execute Contract with Selected Contractor
- Work Plan Development, including approval of designated disposal/recycling targets, HBM abatement plans, permitting, grading, Site-specific Health & Safety Plan, etc.
- Mobilization and set up of site security
- Demarcate demolition cut and save lines where applicable
- Make site and structures safe and secure for worker access and deconstruction
- Implement erosion control plan
- Verify energy sources, utilities, and pipelines, etc.
- Develop and implement utility capping plan and lockout/tagout (LOTO) plan, as required
- Removal of universal wastes from all structures
- Removal of asbestos and lead only from ancillary structures
- Equipment and scrap recovery
- Remove ancillary structures through mechanical means
- Process steel, segregate masonry/concrete from other streams
- Remove subsurface structures to top of pilings, as limited by the structure, groundwater, or river water levels.
- Cap the screen house void space with flowable fill
- Backfill subsurface with approved clean fill to final grade and restore surface cover per plan
- Demobilize

Option 2: Demolition with Clean Fill provides for complete removal and on-site disposition of the main building structures, down to the basement slab. Walls will be removed to 3 feet below grade. Walls will be removed to lower elevations where final grade is planned to be less than current grade and/or to facilitate natural drainage in the direction of the Cumberland River. Foundations and foundation piling will remain provided they are below planned finished grade. Subsurface structures associated with the water intake and effluent structures below the water table are also assumed to remain. These structures are not likely to affect future site development other than new port-related facilities and are not expected to be a hazard to navigation. If future development plans include waterfront structures, then deconstruction of those structures and resultant costs could be addressed at that time.

Conventional deconstruction, or demolition, with continual separation of salvageable materials will be the most cost effective method of removing these structures. The project is expected to follows the below typical sequence, however, some tasks may be completed simultaneously and may be subject to change based on levee alteration permit requirements:

- Hazardous Building Material Surveys, Material Quantification
- Development of Project Drawings and Specifications
- Develop Mothball Plan and define work packages needed
- Develop RFP
- Qualify Contractors
- Solicit Proposals
- Execute Contract with Selected Contractor

- Work Plan Development, including approval of designated disposal/recycling targets, HBM abatement plans, permitting, grading, Site-specific Health & Safety Plan, etc.
- Mobilization and set up of site security
- Make site and structures safe and secure for worker access and deconstruction
- Implement erosion control plan
- Verify energy sources, utilities, and pipelines, etc.
- Develop and implement utility capping plan and lockout/tagout (LOTO) plan, as required
- Removal of universal wastes
- Removal of asbestos and lead
- Equipment and scrap recovery
- Remove structure through mechanical means
- Process steel, segregate masonry/concrete from other streams
- Remove subsurface structures to top of pilings, as limited by the structure, groundwater, or river water levels.
- Cap the screen house void space with flowable fill
- Backfill subsurface with approved clean fill to final grade and restore surface cover per plan
- Demobilize

Scrap metal value recovery return for Pineville will not be substantial, and equipment values are likely to be low due to the relative age of the facility. Our estimate utilized a conservative value based on a limited quantity take-off from the brief site visit. Due to the current low value of scrap steel there has been no estimated scrap credit represented in the ROM estimate. The market value is currently approximately $120/ton which is 25 to 33% of the value seen in recent years. Actual returns will depend on market conditions and project timing. Implementation phase planning should include a more detailed analysis and quantity take-off of salvage/scrap materials in order to better evaluate contractor's bids and their proposed credit scheme for scrap values. Copper scrap recovery was not included in the initial estimate, but may be substantial if vandalism and theft have been kept to a minimum. Steam turbines and condensers present a high potential for non-ferrous scrap credit depending on the material of construction.

A comprehensive specification for this project would include the necessary data to allow contractors to accurately price the hazardous material handling, asbestos removal, floodwall system preservation, structure demolition, and site restoration aspects of the project. This includes assembling available construction or as-built drawings, hazardous/asbestos surveys, geotechnical, flood wall profiles, specifications, final grading plan, SWPPP and the owner's preferences for the disposition/reuse of waste streams. It is preferable to use performance-based specifications on large demolition projects to allow the Contractor to provide creative solutions to project challenges, but still allows the owner to be specific and prescriptive about elements of work or requirements of high interest/risk.

Given the significant quantities of HBMs, primarily asbestos and lead-based paint, Amec Foster Wheeler recommends that HBM abatement, structural demolition, and site restoration be contracted under one general Contractor, if possible. The general contractor can also be responsible for key permitting activities, subject to LG&E review and approval. This also allows the bidders to determine exact sequencing (as allowed by permit issuance). Creating a contract that balances the risks of incidents and poor performance with effective control of the work, while recovering the maximum value of assets, can produce a successful outcome. The selection of qualified bidders should at a minimum reflect the Owner's values of Safety, Compliance, Quality and financial responsibility.

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Amec Foster Wheeler has provided an estimate of demolition costs consistent with other similar projects for Mothballing and Demolition (see detailed cost estimate in **Appendix 1**). The extent of demolition has been defined in the various possible options (see Options definitions in Section 1.0) relative to disposition of subsurface structures, concrete/ masonry reuse, and other considerations.

7.0 ASH POND CCR

Existing Ash Ponds: Two ash ponds exist on site: one is overgrown and out of service; the other is partial overgrown and receives waste water from the plant (sumps) and stormwater. In our opinion, neither of these ponds fall under the new EPA CCR Regulations (Coal Combustion residues) which go into effect in October of this year because the plant is closed and the ponds no longer receive CCR Waste. However, consideration should be given to closing the ponds in such a manner as to guard against an unwanted release of old CCR materials. We know that LG&E is currently evaluating their ash ponds for compliance with new regulations, and those working that initiative may be able to provide additional information. We have included some additional Civil Engineering budget in our conceptual cost tables to initially address these issues.

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APPENDIX 1

ROUGH ORDER OF MAGNITUDE COST ESTIMATE

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APPENDIX 2

FIGURES

Insert figures and maps

Create text box Fig. No. for each map not already numbered using filename designation

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APPENDIX 3

PHOTO LOG

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APPENDIX 4

GANT CHART OF PRELIMINARY SCHEDULE OF ACTIVITIES

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APPENDIX 5

OPTION 3: STAKEHOLDERS AND PERMITS

Potential Stakeholders

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Tyrone Generating Station
Demolition Consulting - Conceptual Phase Study

Draft Report

Prepared by:

amec foster wheeler

11003 Bluegrass Parkway
Suite 690
Louisville, KY 40299

July 17, 2015

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1.0 PROJECT BACKGROUND

Louisville Gas and Electric Company (LG&E) commissioned Amec Foster Wheeler Environment & Infrastructure, Inc. to perform the *Tyrone Generating Station-Demolition Consulting-Conceptual Phase Study.* The final Request for Proposal (RFP) dated January, 2015 identified the following key objectives of the project:

1) Prepare a conceptual project plan(s),
2) Identify viable options from mothballing to complete demolition and
3) Prepare estimate(s) for options presented

Amec Foster Wheeler examined several feasible options for disposition of the former coal powerhouse complex at Tyrone Station, including removal of hazardous building materials (HBMs), along with various scenarios of demolition. Amec Foster Wheeler engaged in iterative discussions with LG&E during the fall of 2014 and winter spring of 2015. The alternative project paths considered included two main options:

1. **Mothball Structures:** Physical hazards would be addressed, but the main structure would remain in place. This option would reduce risks associated with hazardous materials and worker safety by maintaining the main plant and any associated structural systems and hazardous materials. Limiting access and removing ancillary structures reduces the risk to occupants and trespassers. Removal of ancillary structures (coal conveyor, screen houses, miscellaneous sheds, etc.) and associated HBMs would remove risks posed by long term presence of easily accessible smaller structures, but would not eliminate risks associated with main plant structural systems and trespassers.
2. **Demolition with On-site Disposal of clean concrete and masonry and clean imported fill:** The HBMs would be removed and deconstruction would include removal of all structures to a depth of 3 feet below the ground surface. Subsurface voids would be filled with processed demolition material or imported clean fill. Non-hazardous, non-salvageable building materials such as clean masonry and concrete materials would be crushed on-site and used as backfill to the maximum extent feasible.

For the *Tyrone Generating Station-Demolition Consulting-Conceptual Phase Study*, Amec Foster Wheeler was tasked to evaluate only the inactive portion of the property on the west side of the switch yard and coal power plant-associated structures. Amec Foster Wheeler evaluated the following key aspects or issues which significantly influence project strategy regardless of the project path selected:

1. **Flood Protection System (FPS).** Any action or option which results in alteration of an existing Flood Protection System must be approved through the federal (Section 408) permitting process to meet the current design standards of the U.S. Army Corps of Engineers (USACE). Amec Foster Wheeler found no indication of an existing levee at the site and did not find an active Levee District for this area. Our ROM cost estimate does not include any engineering or construction fees related to Flood Protection.
2. **Environmental, Health, and Safety Aspects,** including physical hazards, asbestos, lead-based paint, and other hazardous building materials require careful management to minimize risks to site workers and the public while complying with appropriate regulatory permits and agency requirements to achieve a final, clean closure of the property. Current conditions of the site present safety and environmental risks associated with falling

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objects, deteriorated structures, potential trespassers, and the potential for environmental releases.

3. **Deconstruction** of the structures will include careful sequencing to achieve safe removal and off-site disposal and/or salvage of building materials. The screen house structures will be demolished to the higher of the normal Kentucky River pool or current water level at the time of demolition. No underwater deconstruction has been included in the cost estimates. The backfill used to return the site to grade must meet FPS design specifications or otherwise stabilize the river bank and building site in a sustainable manner.

The Request for Change Order required submittal of draft and final reports which include the following specific elements (*italics*). Each scope item is further addressed in detail in the below-referenced sections of this report:

- *Assessment of environmental issues (Section 4.0)*
- *Assessments of current site conditions and likely risks (Section 2.0)*
- Amec Foster Wheeler *reviewed existing hazardous materials files and KDWM information*
- *Amec Foster wheeler shall specify what testing will be necessary during the Hazardous Building Material Survey phase.*
- *Appropriate remediation costs (order of magnitude) for any suspect hazardous materials (Section 4.0, Appendix 1).*
- *Assessment of impacts to adjoining neighborhoods, properties, etc. from things such as demolition, impact on traffic patterns (Section 4.0).*
- *Identify specific local, state, federal agencies and other stakeholder groups that LG&E will need to interact with as part of this project, such as the US Army Corps of Engineers, the EPA, Kentucky Division of Water Management, etc. Potentially interact with these agencies identified as required to develop a concept (Appendix 5).*
- *Assess and prepare a list of permits, inclusive of schedule requirements for the permits, required to implement ultimate plan (Section 4.0, Appendix 5).*
- *Identify project schedule (Appendix 4).*

The order-of-magnitude costs were developed for the HBM abatement, deconstruction, and FPS concerns according to the two options described above. These costs do not include:

- Removal or abandonment of structures below the Cumberland River water level.
- Reconfiguration of Power facilities currently contained in the facility whose serviceability will survive demolition

The ROM pricing for the two options (**Appendix 1**) includes order-of-magnitude cost estimates for each option. Estimated order-of-magnitude costs may vary significantly from the actual costs dependent on a number of factors including competition, disposal, season, insurance, salvage material and metal values, and finalized scope of work, etc. These figures have been derived from Amec Foster Wheeler experience and recently secured pricing for the Paddy's Run Plant Demolition Project. These limitations should be considered during budget formulation.

Additional study is recommended to further define the scope and costs associated with abatement of HBMs, FPS alterations, deconstruction and salvage of building materials, as well as to facilitate the project schedule by completing certain preliminary planning tasks. A list of implementation phase planning activities and durations is included as a gant chart in **Appendix 4**.

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2.0 SITE DESCRIPTION

Tyrone Station is an approximately 40-acre property located in an industrial area at US 25 East in Four Mile, on the bank of the Cumberland River (**Figure 1**).

The property has an active switching station located on the east side of the levee and a former coal powerhouse complex along and on the west side of the levee (**Figure 2A**).

The former powerhouse complex was initially developed in 1940. Construction resumed at Tyrone after the war, and the plant's first of three units went online in 1947. Two Units, 1 and 2, both 25 MW units were operational in 1947 and 1948 respectively. Unit 3, which began operation in 1953, is the only one remaining in service.

The structural and mechanical systems are in fairly good shape as the building envelop is largely intact. The surrounding grounds are also maintained routinely and in good condition.

There appears to be no flood wall system in place at the Tyrone facility.

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3.0 HEALTH & SAFETY

Key health and safety aspects such as physical hazards, asbestos, lead, and other HBMs require careful management to minimize risks to site workers and the public while complying with appropriate regulatory provisions and agency requirements.

Physical hazards, including leaking roofs, deteriorated metal grating and plates in floor openings, mezzanines, and stairs, falling brick veneer & broken glass, over time, increase LG&E's liability in the form of risks to building entrants (authorized and unauthorized) as well by increasing the ultimate cleanup costs by allowing water infiltration to damage building materials and structures. Maintaining the building envelope ensures that degradation over time will be minimized. It is expected, however that even well maintained buildings may incur mold growth and some deterioration of insulation, paint, etc. when the building space is not heated or ventilated. Periodic building monitoring to identify needed maintenance will help to prevent maintenance issues from becoming environmental liabilities. Additionally, appropriate site security and access control measures should be employed to reduce exposure for site workers and potential trespassers.

HBMs, including presumed asbestos and lead-based paints are currently in fair condition. Exposure of building occupants to airborne HBMs is not a significant concern. Loose or damaged insulation materials should be repaired in areas frequented by occupants.

Other health and safety concerns for abatement and deconstruction projects include, but are not limited to: exposure to heat/cold, bird droppings, and wet conditions; working at heights; heavy equipment operation; electrical work; hot work; and portable powered tools.

Throughout the abatement and deconstruction phases of the project, strict safety rules, including those addressed in LG&E's Passport Safety Program should be employed to minimize the exposure of workers to the site hazards. An approved site-specific health and safety plan should be implemented by all contractors and site workers.

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4.0 ENVIRONMENTAL

Key environmental aspects include asbestos, lead, protection of the natural environment, and others. Complying with appropriate regulatory provisions and agency requirements is of paramount importance. Anticipated environmental permits and anticipated timelines are listed in **Appendix 5**.

A review of available LG&E archives and Kentucky Department of Waste Management information about the facility revealed the following;

RCRA Summary

In 1980, the facility registered as a hazardous waste generator with the USEPA. According to information submitted, corrosive wastes were generated when the facility cleaned boilers with acid based cleaners; however no permits were issued or annual reports were submitted until 1993. In 1993, the facility's permit was reactivated and registered as a limited quantity generator of waste petroleum naphtha (D001, 480 pounds per year). In 2000, various waste streams were added to the permit including waste paints/solvents, paint solids, flammable solids, lead contaminated solids, and mercury contaminated solids and liquids.

According to a 1994 inspection, the facility generated small amounts of mineral spirits during painting projects. The waste was stored in drums and combined with used oil and burned in the facility boilers.

In 2013 a modification was submitted requesting to be moved to large quantity generator status generating waste petroleum naphtha, waste paint/solvents, waste paint solids, flammable solids, lead contaminated solids, mercury contaminated solids and liquids, corrosive liquids, waste aerosol cans, lab packs, hydrazine, and bonding powder. According to information submitted with the modification, the new waste was being generated from a recent project to remove unneeded chemicals from the facility. In 2014 the facility changed back to conditionally exempt small quantity generator status.

Based on information gathered to date there appears to be little to no risk of legacy RCRA issues.

UST Summary

In 1986 the facility submitted a Notification for Underground Storage Tanks to the KDWM. The notification listed the presence of four USTs all steel tanks installed in 1947 to include: a 14,000 gallon tank used to store diesel, a 2,000 gallon tank used to store diesel, a 2,000 gallon tank used to store kerosene and a 1,000 gallon tank used to store diesel. In 1989, the facility submitted an amended notification asking for the 14,000 gallon UST to be removed from the list of regulated tanks since it was used as an exempt heating oil tank used to store No. 2 fuel oil. Also in 1989 a notification was submitted for removal of the remaining three regulated tanks. In the letter, the 2,000 gallon tank used to store kerosene was noted as containing gasoline, not kerosene. According to an inspection done by KDWM during removal, the tank pit was located on the west side of the coal conveyer system, between the conveyer and a coal pile located further to the west; however, based on the closure report submitted by ATC Associates, Inc., the tank pit was located on the east side of the coal conveyor between the conveyor and a coal pile located further to the east. Removal of the three USTs received closure on April 20, 1990 based on samples collected during removal.

Two aboveground tanks which are 50,000 gallons each formerly stored fuel oil used to heat the building. Both of these tanks were emptied and cleaned on 5/13/2013.

Future investigations should identify the need, if any, and conduct further sampling in association with any tanks or Oil Water Separators currently on site.

Stormwater/Spills/Wells

According to an incident report, a sulfuric acid release occurred on July 6 1989. Sulfuric acid was noted to be "leaking from a pipe 50 feet from the river". No additional information regarding the release was found.

From December 1989 through February 1990 an industrial well was constructed onsite (Well # 0002-0844). The well was installed to 50 feet, which was reportedly the top of bedrock. The well had 10 feet of screen and was constructed with 13.25" steel casing. In November 1993 an industrial well was constructed onsite (Well # 0004-0551). The well was installed to 53 feet, which was reportedly the top of bedrock. The well had 10 feet of screen and was constructed with 13.25" steel casing. Information from LG&E indicates that these two wells were closed as of 8/12/2013.

A memo from the Division of Waste Management dated February 10, 1993 indicated that asbestos waste was potentially buried onsite. The memo indicated that hand digging was in progress to try and locate the potential asbestos waste and that if any ACM was uncovered; it would need to be removed and properly disposed of at a permitted facility. No additional information regarding the potential buried asbestos was found.

Future investigations should include a search for this purported asbestos burial location and any documentation of its status.

Asbestos Summary

In 1991 a notification was submitted for removal of asbestos on the first floor and basement. The affected area was Unit #3 turbine and piping to be removed using a full enclosure.

In 1993 a notification was submitted for removal of asbestos at a hopper on the roof. The affected area was dust collection hoppers on the 5th floor roof to be removed using wet methods.

In 2001 a notification was submitted for removal of asbestos at the Unit #3 penthouse and boiler walls using full containment methods.

In 2002 a notification was submitted for removal of 40 square feet of asbestos material on the Unit #3 feedwater heater using a full mini-containment.

In 2003 a notification was submitted for removal of asbestos at the Unit #3 DA Tank/Boiler walls using full containment.

In 2006 a notification was submitted for removal of asbestos at the Unit #3 CA Tank and associated piping and Unit #3 boiler feed pump steam line using full containment.

Bulk sample results indicate the presence of asbestos in multiple places (though materials may have been removed since being sampled, so this is not an indication asbestos is or is not still onsite in these areas). Samples containing asbestos are summarized below. The year of sample analysis is in parentheses and except as noted all asbestos is chrysotile:

- Lab room exhauster and oven cabinet (2002)
- Lab room table top material (2002)
- U1 basement ash slice water valve to fire hydrant (2000)
- Unit 5 boiler penthouse (2000, amosite)
- U1&2 service water line to traveling screens under walkway (1999)
- Unit 3 lower boiler dead air space (1998)
- U-3 filter water line to Demin (1998)
- U1&2 feedwater line behind aux board (1998)
- U3 S.W. line to up river screens (1996)
- Steam draw line in coal yard office (1996, amosite)
- Steam line to space htr. In coal yard office (1996)
- U1 exhaust stack between stacks (1995)
- Unit 3 turbine and boiler board wire (1994)
- U-3 A. Heater east side outside (1993)
- Coal yard a pit water line straight run at crusher house (1993)
- Unit 3 Aux transformer (1991)
- Unit #3 turbine room roof, gray pressed tile noted as being transite (1990)
- Boilers #1, #2, #3, #4 – white fluffy fibrous mass (1990, amosite)
- Covers on sand filter tanks (1994)

A comprehensive Hazardous Building Material survey (including asbestos) should be completed as part of the Mothball or demolition planning.

Asbestos is the most significant HBM present in the powerhouse complex structures, confirmed by previous documentation. However, insufficient information exists to determine type and extent of materials. The current EPA regulation for the removal of asbestos in buildings, the National Emission Standard for Hazardous Air Pollutants (NESHAP, 40 CFR 61, Subpart M) requires regulated ACMs be properly removed prior to performing renovation and demolition activities which would disturb them. The Commonwealth of Kentucky, Department for Environmental Protection, Division of Air Quality regulates asbestos activities through the issuance of permits and oversight of abatement activities. A licensed Asbestos Designer should develop ACM abatement specifications to address the scope of removal work, regulatory requirements, notification procedures, air sampling requirements and other pertinent information.

Asbestos removal should be monitored to ensure no asbestos is released into ambient air. During enclosed asbestos removals, a licensed independent or 3rd party consultant should perform monitoring during the abatement and perform clearance air testing prior to the removal of the containment/enclosure barriers. If concealed ACM is later observed during demolition activities as access is gained to previously inaccessible areas, it will be necessary to investigate and collect bulk samples of each potential ACM in order to confirm the presence or absence of asbestos content. Inaccessible locations include: inside wall cavities or other finishing/

structural/architectural materials; above fixed ceiling systems; inside mechanical systems, boilers, ducts, equipment, or manufacturing/production equipment (e.g. air handling units, ductwork, etc.); and areas that were previously unsafe to access (including excessive heights, confined spaces, etc.).

Amec Foster Wheeler recommends a more comprehensive inventory of hazardous materials be completed to confirm the full scope of environmental remediation and associated costs. Potential additional hazardous materials and environmental conditions which should be addressed include:

- Lead-based paint (LBP) in structural and equipment coating systems.
- Asbestos Containing Materials
- Mercury-containing equipment such as switches, manometers, etc.
- Polychlorinated biphenyls (PCBs) in ballasts, equipment, and elastomeric materials. The EPA generally regulates the handling and disposal of PCBs in building materials above 50 mg/kg.
- Radioactive sources.
- Chlorofluorocarbon (CFC) containing equipment; refrigeration equipment, canisters, etc.
- Duct, tank, trench, pit, and pipe residues; dusts, liquids, etc. where accessible.
- Contaminated soils; associated with spills, underground petroleum tanks, etc.
- Miscellaneous containers of unknown chemicals and hazardous substances.
- Characterize concrete and masonry for salvage and on or off-site reuse in lieu of disposal.

HBMs should be identified, characterized, removed and disposed off-site in accordance with local, state, and federal regulations. Amec Foster Wheeler estimated the cost of asbestos removal and other HBMs based on experience with facilities of a similar size and age. No materials have been sampled as part of this conceptual study. All but one of the original boilers have been removed. The cost estimate for removal will be updated after materials are properly characterized and quantified in a subsequent hazardous building material survey. A more extensive evaluation of HBMs and HBM quantities will further refine the cost estimate.

Depending on the final FPS alteration permit and/or funding mechanisms, a National Environmental Policy Act (NEPA) review of certain aspects of the project may be required. This could include preparation of an Environmental Assessment or other NEPA document, including examining the historical value of the property, noise impacts, air quality impacts, water quality impacts, etc.

The estimated order-of-magnitude costs and assumptions for implementation of additional environmental planning, permitting, and hazardous materials assessments are also presented in **Appendix 1**.

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5.0 FLOOD PROTECTION SYSTEM

Flood and Levee Protection: Amec Foster Wheeler found no indication of an existing levee at the site and did not find a Levee District for this area. Our conceptual cost table does not include any additional engineering or construction fees for Flood Protection.

6.0 DECONSTRUCTION

The Tyrone Station powerhouse complex structures consist mainly of steel beam construction, with brick, and metal sheeting facades, built-up roofs, and concrete reinforcements. The Electrostatic Preciptator is an open structural steel supported addition. Below-grade or basement walls and floor slabs are steel-reinforced concrete. Slabs and walls rest on grade beams and vertical pilings. Process equipment, including boilers, tanks, piping, pumps, etc. are mounted on steel and concrete structures throughout the foundation, most of which will be removed for salvage during or following asbestos abatement activities. **Figure 3** provides cross-section details of the main powerhouse complex structures.

Option 1: Mothballing the Main Plant with demolition of ancillary structures. Under option 1 the main plant building envelop is secured and maintained for a period of time (years) to defer total remediation and demolition costs. Ancillary structures such as storage sheds, screen house, conveyor system remnants, etc. are removed to grade with subsurface voids filled with processed masonry and/or brick and stabilized with a surface cap of flowable fill and/or soil. This option involves the repair and maintenance of main building envelop systems such as roofing masonry joints and window. Basement sumps are to be kept operational to remove stormwater from the main plant basement as perated under a KYPDES permit. If the building is not heated provisions should be made to ensure that operating drainage pipes do not accumulate water when sumps are not operating to avoid freeze thaw pipe bursts during extreme cold weather.

Demolition of ancillary structures provides for complete removal and on-site disposition (clean concrete and masonry) of the ancillary building structures, down to the basement slab. Walls will be removed to 3 feet below grade. Walls will be removed to lower elevations where final grade is planned to be less than current grade and/or to facilitate natural drainage in the direction of the Cumberland River. Foundations and foundation piling will remain provided they are below planned finished grade. Subsurface structures associated with the water intake and effluent structures below the water table are also assumed to remain. These structures are not likely to affect future site development other than new port-related facilities and are not expected to be a hazard to navigation. If future development plans include waterfront structures, then deconstruction of those structures and resultant costs could be addressed at that time.

Conventional deconstruction, or demolition, with continual separation of salvageable materials will be the most cost effective method of removing these structures. The project is expected to follows the below typical sequence, however, some tasks may be completed simultaneously and may be subject to change based on levee alteration permit requirements:

- Hazardous Building Material Surveys, Material Quantification
- Development of Project Drawings and Specifications
- Develop Mothball Plan and define work packages needed
- Develop RFP(s)
- Qualify Contractors
- Solicit Proposals

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- Execute Contract with Selected Contractor
- Work Plan Development, including approval of designated disposal/recycling targets, HBM abatement plans, permitting, grading, Site-specific Health & Safety Plan, etc.
- Mobilization and set up of site security
- Demarcate demolition cut and save lines where applicable
- Make site and structures safe and secure for worker access and deconstruction
- Implement erosion control plan
- Verify energy sources, utilities, and pipelines, etc.
- Develop and implement utility capping plan and lockout/tagout (LOTO) plan, as required
- Removal of universal wastes from all structures
- Removal of asbestos and lead only from ancillary structures
- Equipment and scrap recovery
- Remove ancillary structures through mechanical means
- Process steel, segregate masonry/concrete from other streams
- Remove subsurface structures to top of pilings, as limited by the structure, groundwater, or river water levels.
- Cap the screen house void space with flowable fill
- Backfill subsurface with approved clean fill to final grade and restore surface cover per plan
- Demobilize

Option 2: Demolition with Clean Fill provides for complete removal and on-site disposition of the main building structures, down to the basement slab. Walls will be removed to 3 feet below grade. Walls will be removed to lower elevations where final grade is planned to be less than current grade and/or to facilitate natural drainage in the direction of the Cumberland River. Foundations and foundation piling will remain provided they are below planned finished grade. Subsurface structures associated with the water intake and effluent structures below the water table are also assumed to remain. These structures are not likely to affect future site development other than new port-related facilities and are not expected to be a hazard to navigation. If future development plans include waterfront structures, then deconstruction of those structures and resultant costs could be addressed at that time.

Conventional deconstruction, or demolition, with continual separation of salvageable materials will be the most cost effective method of removing these structures. The project is expected to follows the below typical sequence, however, some tasks may be completed simultaneously and may be subject to change based on levee alteration permit requirements:

- Hazardous Building Material Surveys, Site Investigations, Material Quantification
- Development of Project Drawings and Specifications
- Develop Mothball Plan and define work packages needed
- Develop RFP
- Qualify Contractors
- Solicit Proposals
- Execute Contract with Selected Contractor
- Work Plan Development, including approval of designated disposal/recycling targets, HBM abatement plans, permitting, grading, Site-specific Health & Safety Plan, etc.
- Mobilization and set up of site security

- Make site and structures safe and secure for worker access and deconstruction
- Implement erosion control plan
- Verify energy sources, utilities, and pipelines, etc.
- Develop and implement utility capping plan and lockout/tagout (LOTO) plan, as required
- Removal of universal wastes
- Removal of asbestos and lead
- Equipment and scrap recovery
- Remove structure through mechanical means
- Process steel, segregate masonry/concrete from other streams
- Remove subsurface structures to top of pilings, as limited by the structure, groundwater, or river water levels.
- Cap the screen house void space with flowable fill
- Backfill subsurface with approved clean fill to final grade and restore surface cover per plan
- Demobilize

Scrap metal value recovery return for Tyrone will not be substantial, and equipment values are likely to be low due to the relative age of the facility. Our estimate utilized a conservative value based on a limited quantity take-off from the brief site visit. Due to the current low value of scrap steel there has been no estimated scrap credit represented in the ROM estimate. The market value is currently approximately $120/ton which is 25% to 33% of the value in recent years. Steel generally costs $60-$80/ton to prepare and ship. Actual returns will depend on market conditions and project timing. Implementation phase planning should include a more detailed analysis and quantity take-off of salvage/scrap materials in order to better evaluate contractor's bids and their proposed credit scheme for scrap values. Copper scrap recovery was not included in the initial estimate, but may be substantial if vandalism and theft have been kept to a minimum. Steam turbines and condensers present a high potential for non-ferrous scrap credit depending on the material of construction.

A comprehensive specification for this project would include the necessary data to allow contractors to accurately price the hazardous material handling, asbestos removal, floodwall system preservation, structure demolition, and site restoration aspects of the project. This includes assembling available construction or as-built drawings, hazardous/asbestos surveys, geotechnical, flood wall profiles, specifications, final grading plan, SWPPP and the owner's preferences for the disposition/reuse of waste streams. It is preferable to use performance-based specifications on large demolition projects to allow the Contractor to provide creative solutions to project challenges, but still allows the owner to be specific and prescriptive about elements of work or requirements of high interest/risk.

Given the significant quantities of HBMs, primarily asbestos and lead-based paint, Amec Foster Wheeler recommends that HBM abatement, structural demolition, and site restoration be contracted under one general Contractor, if possible. The general contractor can also be responsible for key permitting activities, subject to LG&E review and approval. This also allows the bidders to determine exact sequencing (as allowed by permit issuance). Creating a contract that balances the risks of incidents and poor performance with effective control of the work, while recovering the maximum value of assets, can produce a successful outcome. The selection of qualified bidders should at a minimum reflect the Owner's values of Safety, Compliance, Quality and financial responsibility.

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Amec Foster Wheeler has provided an estimate of demolition costs consistent with other similar projects for Mothballing and Demolition (see detailed cost estimate in **Appendix 1**). The extent of demolition has been defined in the various possible options (see Options definitions in Section 1.0) relative to disposition of subsurface structures, concrete/ masonry reuse, and other considerations.

7.0 ASH POND CCR

Existing Ash Ponds: Several ash ponds exists on site In our opinion, these ponds do not fall under the new EPA CCR Regulations which go into effect in October of this year because the plant is closed and the ponds no longer receive CCR Waste. However, consideration should be given to closing the ponds in such a manner as to guard against an unwanted release of old CCR materials. In addition we understand there is an area of erosion associated with these ponds. We know that LG&E is currently evaluating their ash ponds for compliance with new regulations, and that group may be able to provide additional information on initiatives within LG&E that may impact older ash pond sites such as at Tyrone. We have include some additional Civil Engineering budget in our conceptual cost tables to initially address these issues.

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APPENDIX 1

ROUGH ORDER OF MAGNITUDE COST ESTIMATE

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APPENDIX 2

FIGURES

Insert figures and maps

Create text box Fig. No. for each map not already numbered using filename designation

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APPENDIX 3

PHOTO LOG

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APPENDIX 4

GANT CHART OF PRELIMINARY SCHEDULE OF ACTIVITIES

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APPENDIX 5

OPTION 3: STAKEHOLDERS AND PERMITS

Potential Stakeholders

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KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 11

Responding Witness: Valerie L. Scott

Q.1-11. Please describe the Company's accounting for the demolition costs at Paddy's Run and other retired plants, including the FERC balance sheet and/or expense accounts used to record the costs incurred, and the expense accounts used to record the depreciation or amortization of the costs, if any. If the Company proposes to depreciate or amortize the costs, then provide the depreciation or amortization period and the rationale for the proposed period.

A.1-11. KU's accounting for the costs incurred to demolish the retired plants will be in accordance with the guidelines prescribed in the Code of Federal Regulations 18 CFR, Chapter 1, Subchapter C, Part 101, Electric Plant Instruction 10. KU will charge Account 108 - Accumulated provision for depreciation of electric utility plant for the costs to physically retire the plants, e.g. cost of removal and salvage. The costs to demolish the plants will be credited to the steam functional classification in accordance to the Code of Federal Regulations 18 CFR, Chapter 1, Subchapter C, Part 101, Account 108. The Company plans to recover these costs through depreciation rates via a terminal salvage component.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 12

Responding Witness: Christopher M. Garrett

Q.1-12. Please provide a quantification of the revenue requirement for the demolition of the retired plants in the test year, including all rate base/capitalization components and all operating expenses. The quantification should include all reductions in rate base/capitalization and operating expenses from savings, if any.

A.1-12. The Company has not developed or quantified a revenue requirement for the specific projected demolitions and to do so would require original work. The 13 month average balance for expenditures recorded to accumulated depreciation for plant demolitions through the test year is $4.8 million.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 13

Responding Witness: John P. Malloy

Q.1-13. Refer to page 17, lines 1-16, of Mr. Malloy's Direct Testimony wherein he describes the deployment related capital and O&M costs for implementation of the AMS meter deployment as well as the projected savings. The Kentucky jurisdictional O&M expenses for KU were estimated on line 7 to be $13.7 million.

a. Please provide the estimated deployment-related O&M expense by FERC account number included in the (a) base year, (b) test year, and (c) 12 months immediately succeeding the test year.

b. Please provide the estimated O&M expense savings by FERC account number, such as meter reading expense, that serve to offset the deployment-related O&M expenses included in the (a) base year, (b) test year, and (c) 12 months immediately succeeding the test year.

A.1-13.

a. O&M Expenses	Base Year	Test Year	12-mos Succeeding
586: Meter Expense	$ -	$ 1,173,875	$ 795,785
597: Maintenance of Meters	-	1,443,099	2,107,102
903: Customer Records and Collection Exp	-	640,773	794,787
910: Miscellaneous Customer Service Exp	-	93,745	120,020
	$ -	**$ 3,351,492**	**$ 3,817,693**

b. O&M Savings	Base Year	Test Year	12-mos Succeeding
586: Meter Expense	$ -	$ -	$ (395,500)
902: Meter Reading Expenses	-	-	(547,000)
	$ -	**$ -**	**$ (942,500)**

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 14

Responding Witness: John P. Malloy

Q.1-14. Refer to page 18, lines 3-16 of Mr. Malloy's Direct Testimony wherein he describes the DNV-KEMA report. Please provide a copy of this report and all cost/benefit analyses, including all quantifications and electronic spreadsheets with formulas intact.

A.1-14. The DNV KEMA report was provided in Case No. 2014-00003 as Exhibit DEH-1. Please see page 1158-1326 of the PDF at this link.

http://psc.ky.gov/pscecf/2014-00003/rick.lovekamp%40lge-ku.com/01172014092917/LGE_KU_DSM_EE_App_1-17-14.pdf

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 15

Responding Witness: Robert M. Conroy / John P. Malloy / Counsel

Q.1-15. Refer to page 23, lines 8-14 of Mr. Malloy's Direct Testimony wherein he states:

> The other large driver of savings results from customers using less energy and using it more efficiently as they learn more about their own usage from the web portal that will be available to them as part of the AMS deployment. The Companies and other utilities have observed that customers who actively access such information tend to decrease their usage slightly. Aggregating those savings through 2039 produces net savings of over $166 million (nominal) and over $66 million NPV, which are savings customers will receive directly by reducing their bills through reduced usage.

a. Please confirm that a reduction in customer revenues is not a reduction in the Companies' costs and that the $166 million is not a savings to the Companies. If the Company cannot confirm this, then please explain why not.

b. Please confirm that the reduction in customer revenues does not result in a reduction in the Companies' revenue requirements; it simply means that the Companies' costs must be recovered over fewer billing units, all else equal. If the Company cannot confirm this, then please explain why not.

c. Please provide a copy of all internal correspondence that addresses whether a reduction in revenues is a valid benefit that should be included in the Companies' cost/benefit analyses.

d. Please identify each person, their position, and their role in the decision to include a reduction in revenues as a savings in the Companies' cost/benefit analyses.

e. Please confirm that the Companies recover the revenues lost due to energy efficiency and demand response initiatives through increased charges per billing unit, all else equal. If the Company cannot confirm this, then please explain why not.

A.1-15.

a. The $166 million (nominal) is a savings residential customers are projected to receive directly by reducing their bills through reduced energy usage. The Companies will presumably spend less on fuel and other consumables resulting from these energy savings, though those reduced variable costs will be less than $166 million (nominal). The net reduction in revenues would result in less revenue (at least relatively less revenue) from those customers to meet the Companies' revenue requirements.

b. See the response to a. above.

c. See the Company's objection filed on January 20, 2017. The Company has not identified any non-privileged documents.

d. Decisions such as these are made collectively through a process of information gathering, conversation, and discussion amongst leadership teams across the organization, including senior levels for strategic direction. Final decisions are reviewed in a formal Investment Committee process.

e. Within the terms of the Company's Demand-Side Management ("DSM") Cost Recovery Mechanism (Sheet Nos. 86 *et seq.*), the premise of the question is correct: the mechanism includes a lost sales component (for no more than the three most recent years' lost sales) related to sales lost due to the Company's own DSM and energy efficiency programs (but not to customer-implemented savings measures or practices). Also, the mechanism is billed on a per-kWh basis to customers to whom DSM programs are available.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 16

Responding Witness: Robert M. Conroy / John P. Malloy

Q.1-16. Refer to Exhibit JPM-l at Section 7.

a. Refer to page 35 and the references to the 2008 EPRI study. Please provide a copy of this study and all other documents reviewed by the Companies to determine the avoidable non-technical line losses.

b. Please provide the annual actual distribution line losses for the most recent ten years.

c. Please provide a copy of all empirical studies and/or analyses performed by or on behalf of the Companies or other PPL affiliates that attempts to quantify actual non-technical line losses, if any. If none, then please explain why the Companies or other PPL affiliates have not performed such studies and/or analyses.

d. Please provide all studies performed by PPL affiliates that address their actual experience in reduction of non-technical line losses or actual line losses after implementation of AMS.

e. Please confirm that the Companies assume that the AMS meters will have service lives of 20 years and that, once installed, none of the meters will be retired or replaced.

f. Please confirm that the Companies' cost/benefit study is limited to 20 years and does not address replacement of the entirety of the AMS meters within the next 5 years.

g. Please indicate whether the Companies considered a longer cost/benefit study period but decided to truncate the study period in order to avoid including the cost to replace most or all of the AMS meters within the 25 year period.

h. Please provide the average service life for the AMS meters. Provide a copy of all support relied on for this determination.

i. Please confirm that the meters in account 370.20 Meters — AMS at December 31, 2015 were placed in service in 2015.

j. Please confirm that Mr. Malloy agrees with the claims by Mr. Spanos in his depreciation study filed in this proceeding that "These meters are expected to have a shorter average life and maximum life than the standard meters they are replacing. The most consistent average life within the industry for new technology electric meters is 15 years, with a maximum life potential of 25 years." On this basis, Mr. Spanos used 15 years for the service life in his depreciation study. If Mr. Malloy does not agree with Mr. Spanos with respect to the 15 year service life of these meters, then please describe the specific disagreement(s) and the reasons why Mr. Malloy disagrees with Mr. Spanos.

k. Please indicate if Mr. Maloy and Mr. Spanos discussed the assumptions and inconsistencies regarding AMS meter service lives reflected in the depreciation study and/or the AMS business case economic analyses.

A.1-16.

a. See attached. EPRI has recently moved the study referenced by the Company to the public domain. In addition to the EPRI study, the Company referenced Duke Energy Kentucky Inc.'s KPSC Case No. 2016-00152 which cited the same EPRI study.

b. See response to AG 1-13.

c. See attached.

d. The Company is not aware of any studies performed by PPL affiliates that address their actual experience in reduction of non-technical line losses or actual line losses after implementation of AMS.

e. The Company confirms that the AMS meters are expected to have service lives of 20 years, but the Company does not confirm that once installed none of the meters will be retired or replaced.

f. The Companies' cost-benefit study is limited to 24 years to include the projected deployment years through the full expected service life of the meters. The cost-benefit study does not address replacement of the entirety of the AMS meters within the next 5 years, which is appropriate because the cost-benefit study also does not attempt to account for the benefits associated with such replacement meters over their useful lifetimes.

g. The Companies considered various cost-benefit study periods but decided to use a 20 year horizon to best align with the expected service life of the meters. See also the response to f. above.

h. The average service life for the AMS meters is assumed to be 20 years. See attached.

i. Confirmed.

j. The Company agrees with the claims by Mr. Spanos.

k. Messrs. Malloy and Spanos did not have such a discussion. But the Company disagrees with the premise of the question. Mr. Spanos noted that lives for AMS-type meters can extend to 25 years. The Companies have their own experience in this regard, particularly with the Landis + Gyr system deployed in Wilmore, Kentucky, which indicates such meters can have service lives beyond 15 years. Therefore, assuming a 20-year useful life for the Companies' cost-benefit analysis was reasonable.

ELECTRIC POWER RESEARCH INSTITUTE

Advanced Metering Infrastructure Technology

Limiting Non-Technical Distribution Losses In The Future

1016049

Advanced Metering Infrastructure Technology

Limiting Non-Technical Distribution Losses In The Future

Technical Update, December 2008

EPRI Project Manager
Charles Perry

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PRODUCT DESCRIPTION

Revenue security is a major concern for utilities. Theft of electric service in the United States is widespread. In 2006, the revenue estimate for non-technical losses was $6.5 billion. Non-technical losses are associated with unidentified and uncollected revenue from pilferage, tampering with meters, defective meters, and errors in meter reading. In this report, revenue security describes the use of advanced metering infrastructure (AMI) technology to minimize non-technical losses.

Results and Findings

The report defines revenue security as securing revenue that is due to the distribution utilities from the delivery of electricity to end-users. The report distinguishes between revenue losses caused by technical and non-technical factors, with a primary focus on the latter. Integrated with meter data management system (MDMS) technology—software that accepts, stores, and forwards AMI-collected data to utility systems such as billing—AMI significantly improves a utility's ability to monitor customers' electric meters and detect both intentional electricity bypasses and unintentional errors (for example, billing and customer service problems encountered by traditional manual meter-reading operations). The report describes AMI technologies in detail, from enabling hardware and software to transitioning from traditional systems to installation and implementation. The transition from meter reader to meter revenue protection agent also is discussed. A case study concludes the report by describing how PPL Electric Utilities of Pennsylvania successfully deployed and implemented AMR/AMI throughout its entire service territory (1,353,024 meters as of 2006).

Challenges and Objective(s)

Revenue security involves securing revenue that is due distribution utilities from delivery of electricity to end-users. It includes both reducing losses and collecting revenue associated with the electricity delivered. Non-technical distribution losses occur at the point of delivery and measurement. Minimizing non-technical losses increases the amount of electricity that is delivered, measured, and billed. This is the challenge to revenue security.

Applications, Values, and Use

AMI solutions involve the retrieval of daily or hourly consumption readings and use database information (comparisons with prior once-a-month readings) to identify locations where theft might be taking place. After AMI installation, utilities may uncover a substantial number of previously unknown sources of diversion. By reading meters frequently, AMI also identifies bad meters more quickly and reduces the need for estimating unmetered energy use. AMI's improved meter-reading accuracy also results in improved billing accuracy, fewer customer complaints, reduced call center traffic, and improved customer service.

EPRI Perspective

AMI systems provide new and innovative tools for revenue assurance. With comprehensive AMI/MDMS and vigorous meter revenue protection programs, AMI will have a positive impact on minimizing non-technical losses due to theft. In areas other than theft, AMI offers additional advantages, such as using MDMS features in customer service to respond more quickly and accurately to high-bill inquiries.

Approach

The project team gathered information for this report from a variety of sources, including government surveys, industry reports, Internet searches, utilities, and vendors. When determining the impact of non-technical losses on revenue, the team examined aggregate measurements of revenue and distribution losses from reliable government statistical sources and applied ratios from various industry surveys and reports.

Keywords

Advanced metering infrastructure
Revenue assurance
Meter data management systems
Non-technical losses
Meter tampering
Electricity theft

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1
CHAPTER 1

Revenue Security

Revenue security may be viewed as securing revenue that is due to the distribution utilities from the delivery of electricity to end-users. It includes both the reduction of losses and the collection of the revenue that are associated with the electricity delivered. The activities related to revenue security are oftentimes called "revenue protection" or, more recently, "revenue assurance."[1]

Utility revenue is a function of electricity delivered to end-users (kWh) and the billing rate ($/kWh).

This is expressed in the following formula:

$$R = E_d * r$$

Where:

R = Revenue ($)
E_d = Energy delivered (kWh)
r = rate ($/kWh)

The electricity delivered to end-users is generation minus losses in generation, transmission, and distribution. Distribution losses are divided into two components, technical and non-technical.

This is expressed in the following formula:

$$G - (L_g + L_t + L_{d\,+} L_n) = E_d$$

Where:

G = Gross generation
L_g = Generation losses
L_t = Technical losses – transmission
L_d = Technical losses – distribution
L_n = Non-technical losses
E_d = Energy delivered

Transmission losses and technical distribution losses relate to the physical characteristics and functioning of the electrical system itself. Non-technical distribution losses occur at the point of

[1] Revenue assurance includes theft detection and follow-up, metering malfunctions, billing errors and the like, consumption on inactive accounts, and collections. These activities will be discussed at length in Chapter 2.

delivery and measurement. Minimizing non-technical losses increases the amount of electricity that is *delivered*, *measured, and billed*. This is the challenge to revenue security.

Distribution Losses

Losses in power distribution systems have two components: technical and non-technical.

Technical Losses

Technical loss is the component of distribution system losses that is inherent in the electrical equipment, devices, and conductors used in the physical delivery of electric energy.

Technical loss is intrinsic to electrical systems, as all electrical devices have some resistance and the flow of currents will cause a power loss (I2R loss). Integration of this power loss over time, i.e. _ I2R.dt, is the energy loss. Every element in a power system (a line or a transformer) offers resistance to power flow and, thus, consumes some energy. The cumulative energy consumed by all these elements is classified as "technical loss." Technical losses are due to energy dissipated in the conductors and equipment used for transmission, transformation, sub-transmission, and power distribution. These occur at many places in a distribution system—for example, in lines, mid-span joints and terminations transformers, and service cables and connections.

Technical losses vary greatly in terms of network configuration, generator locations and outputs, and customer locations and demands. In particular, losses during heavy loading periods or on heavily loaded lines are often much higher than those that occur in average or light loading conditions. This is because a quadratic relationship between losses and line flows can be assumed for most devices of power delivery systems. It is not possible to altogether eliminate such losses, which are inherent in a system; they can, however, be reduced to some extent.

Technical losses include the load and no-load (or fixed) losses in the following:

- Sub-transmission lines
- Substation power transformers
- Primary distribution lines
- Voltage regulators
- Capacitors
- Reactors
- Distribution transformers
- Secondary distribution lines
- Service drops
- All other electrical equipment necessary for distribution system operations

Technical losses also include the electric energy dissipated by the electrical burdens of the metering equipment such as potential and current coils and instrument transformers.

Technical losses can be calculated based on the natural properties of components in the power system: resistance, reactance, capacitance, voltage, current, and power.

Non-Technical Losses

Non-technical loss is the component of distribution system losses that is not related to the physical characteristics and functions of the electrical system. Rather, non-technical loss comprises distribution system losses caused by factors at the point of delivery and measurement. These are conditions that the technical losses computation fails to take into account. Such losses are caused primarily by human error, whether intentional or not. Non-technical losses are associated with unidentified and uncollected revenue arising from pilferage, tampering with meters, defective meters, and errors in meter reading and in estimating un-metered supply of energy. System miscalculation on the part of the utilities due to accounting errors, poor record keeping, or other information errors also contribute to non-technical losses.

Non-technical losses also can be viewed as undetected load—customers that utilities do not know exist. When an undetected load is attached to the system, the actual losses increase while the losses expected by the utilities will remain the same. The increased losses will show on the utility's accounts, and the costs will be passed along to the customers as transmission and distribution charges.

Reasons for non-technical (or commercial) losses:

- Non-performing and under-performing meters
- Incorrect application of multiplying factors
- Defects in current transformer (CT) and potential transformer (PT) circuitry
- Non-reading of meters
- Pilferage by manipulating or bypassing of meters
- Theft by direct tapping and so on

All these losses are due to non-metering or under-metering of actual consumption. Non-technical losses occur at many places in a distribution system. These are shown in the following insert.[2]

[2] *Best Practices in Distribution Loss Reduction*, DRUM Program, Power Systems Training Institute, Bangalore – 560070. December 2007. The DRUM (Distribution Reform, Upgrades and Management) project is a series of training and capacity building programs in distribution. The broad objective of the training program is to share relevant regional and international experience in the management of distribution business. The program will cover all the important aspects of the distribution business ranging from regulatory matters such as approaches to tariff setting, open access, and reforms to issues of concern to utilities such as quality of service, information management, and energy efficiency. It is supported by USAID and the Ministry of Power, India.

Losses Due to Non-Technical Reasons	
Loss at consumer end meters	Poor accuracy of meters
	Large errors in CTs/PTs
	Voltage drop in PT cables
	Loose connections in PT wire terminations
	Overburdened CT
Tampering/bypass of meters	Where meters without tamper-proof/temper-deterrent/tamper-evident meters are used
	Poor quality sealing of meters
	Lack of seal issue, seal monitoring and management system
	Shabby installation of meters and metering systems
	Exposed CTs/PTs where such devices are not properly securitized
Pilferage of energy	From overhead "bare" conductors
	From open junction boxes (in cabled systems)
	Exposed connections/joints in service cables
	Bypassing the neutral wires in meters
Energy accounting system	Lack of proper instrumentation (metering) in feeders and detector tubes (DTs) for carrying out energy audits
	Not using meters with appropriate data logging features in feeder and DT meters
	Lack of a system for carrying out regular (monthly) energy accounting to monitor losses
	Errors in sending end meters, CTs and PTs
	Loose connections in PT wires (which result in low voltage at feeder meter terminals)
	Energy accounting errors (by not following a scientific method for energy audits)
Errors in meter reading	Avoiding meter reading due to several causes such as house locked and meter not traceable
	Manual (unintentional errors) in meter reading
	Intentional errors in meter reading (collusion by meter readers)
	Coffee shop reading
	Data punching errors (at MRI and by meter readers)
	Data punching errors by data entry operators
	Lack of validation checks
	Lack of management summaries and exception reports on meter reading
Errors in bills	Errors in raising the correct bill
	Manipulation/changes made in meter reading at billing centers—lack of a system to assure integrity in data
	Lack of a system to ensure bills are delivered
Receipt of payment	Lack of a system to trace defaulters, including regular defaulters
	Lack of a system for timely disconnection
	Care to be taken for reliable disconnection of supply (where to disconnect)

Factors Contributing to Non-Technical Losses

Theft and Non-payment

The most prominent forms of non-technical loss are electricity theft and non-payment. Electricity theft is defined as a deliberate attempt by a person to reduce or eliminate the amount of money he or she will owe the utility for electric energy. This could range from creating false consumption information used in billings by tampering with the customer's meter to making unauthorized connections to the power grid.

Power theft by existing customers is the predominant cause of loss of revenue to the electrical utilities. Almost all customer classes are involved in this: residential, commercial, industrial, and public entities. The consequences of power theft are manifest in many areas of an electric distribution company's business, including transformer failures, equipment breakdowns, poor revenue collection, financial losses, lower credit rating for the utility, increased technical losses, and the corroded integrity of employees.

Theft of power is committed by bypassing the meter or meter tampering. Totally bypassing the meter is done by directly tapping into the distribution line; partial or full load is then fed directly.

There are numerous methods of meter tampering. New methods are constantly evolving and detection of tampering is a continuous challenge for distribution utilities.

Theft can be active or passive. A customer may actively engage in illegal tampering to avoid the registration on the meter, or a customer may take possession of a property, find that electricity and gas supplies are on, and therefore not apply for service, thus avoiding payment without tampering.

Direct tapping of power by non-customers is another source of theft that is widely prevalent in developing countries. This is mainly in domestic and agricultural categories. Geographical remoteness, mass basis for theft, poor law enforcement capability, and inaction on the part of utilities are helping this phenomenon.

Unmetered Connections

In some countries, certain customers are not metered and energy usage is estimated, instead of measured, with an energy meter. Usually, the loads involved are small and meter installation is economically impractical. Examples of this are street lights and cable television amplifiers. Unmetered connections pose problems in correctly estimating consumption, resulting in losses.

Defective Metering

Losses due to metering inaccuracies are defined as the difference between the amount of energy actually delivered through the meters and the amount registered by the meters.

Tampered, slow-running, stalled, or damaged meters cause substantial losses to distribution utilities. Electromechanical meters tend to get sluggish over a period of time, thus under-recording consumption. Stopped or damaged meters can be in place for many years, resulting in on-going losses.

Virtually all energy meters are subject to these kinds of errors and inaccuracies. Standards and protocols for accuracy audits, repairs, and replacement are required to ameliorate this situation.

Meter-Reading Errors

Meter-reading personnel occasionally make errors in recording their readings. For a good number of services the meter reader, at times, reports nil consumption without any comment. Sometimes the meter reader furnishes no readings or in some cases, furnishes table readings. Another error is the adoption of wrong multiplier factors.

Estimated Bills

Sometimes customer bills are prepared using estimates of consumption. The method of estimating customer consumption can distort recorded losses.

Late Billing and Poor Revenue Collection

Consumer complaints in the billing process can result from incorrect billing due to deficiencies in metering and data processing. Prolonged disputes, lack of consumer-friendly policies, connivance, incorrect identification of category, fictitious billing (of non-existent consumers), lack of reconciliation, and continuous provisional billing are causes for poor revenue collections and, thus, contribute to non-technical losses.

> AMI WITH METER DATA MANAGEMENT (MDMS) CAN MITIGATE MANY OF THE FACTORS CONTRIBUTING TO NON-TECHNICAL LOSSES. THE ENABLING TECHNOLOGIES ARE DISCUSSED IN CHAPTERS 2 AND 3.

Non-Technical Loss Contribution to Technical Loss

It is often overlooked that non-technical losses can be a contributing factor to technical loss because of improper load management. Improper load management can lead to overloading of conductors and transformers in the system causing higher losses.

It can be argued that the distortion of load quantities caused by non-technical losses distorts computations for technical losses caused by existing loads, thereby rendering results ineffectual.[3] Energy diversion is a major aggravating factor in this situation.

Reducing non-technical losses may positively impact technical losses by mitigating congestion during periods of peak load when technical losses are particularly high.[4]

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[3] *Non-Technical Losses in Electrical Power Systems*, Thesis, Fritz J. and Dolores H. Russ College of Engineering and Technology Ohio University, Dan Suriyamongkol. November 2002.

[4] *Electricity Distribution Losses*, Office of Gas and Electricity Markets (UK) January 2003.

Measurement

Non-technical losses, by definition, are losses that are not accounted for and are, therefore, not subject to analytical measurement. Non-technical losses are simply the difference between the energy delivered to the distribution system and billed to end-users, less technical losses. Although there is agreement on the importance of non-technical losses, there is no firm data to define the level of losses on an industrywide basis. However, the importance of non-technical losses, especially in terms of their impact on revenue, is such that distribution utilities try to quantify them.

Such quantification is very difficult. Quantifying what statisticians call "unaccountable for" attempts the impossible. There is an inherent difficulty is obtaining data on unmetered supplies and theft. Estimating the revenue impact of non-technical losses presents yet further difficulties. This is brought into relief when trying to measure the benefits of AMI in reducing non-technical losses. Although there are expectations that AMI will help to reduce non-technical losses, the measurement of benefits (or costs) from AMI deployment are considered non-quantifiable. For example, the framework for the business case adopted by the California Public Utilities Commission lists the reduction of non-technical losses as a benefit, but states that they are "not quantifiable, qualitative."[5]

Utilities rely on studies that are designed to calculate the magnitude, composition, and distribution of system losses based on annual aggregate metering information for energy purchases, energy sales, and system modeling methods. These studies are compared to industry and academic studies and models to establish the magnitude, composition, and distribution of losses.

Utilities have developed methods to measure non-technical losses primarily based on detection by manual meter readings and statistical analysis. These are often inaccurate. This is because the data rely heavily on the records of detected cases, rather than by actual measurement of the electrical power system. The reason that measurement or monitoring the power system is not the preferred method of measuring non-technical losses is because the infrastructure of the system, specifically the metering system, makes accurate and detailed loss determination impossible.[6] Measuring distribution line loses directly is not economic.[7]

The metering system is focused on the end-user, not on intermediary stages in the power distribution where technical and non-technical losses could be more accurately measured.

[5] *AMI Potential Benefits Categories Recommended Framework for the Business Case Analysis of Advanced Metering Infrastructure* (Draft Report), Moises Chavez, CPUC and Mike Messenger, CEC April 14, 2004. Easier identification of energy theft is categorized as "not quantifiable, qualitative"; meter accuracy, detection of meter failures, reduction in "idle usage," and billing accuracy are categorized as "short term."

[6] *Non-Technical Losses in Electrical Power Systems*, Thesis, Fritz J. and Dolores H. Russ College of Engineering and Technology Ohio University, Dan Suriyamongkol. November 2002.

[7] For the accurate measurement of technical losses on transmission and distribution systems, it would be necessary to install metering equipment at each voltage level of transmission and transformation.

The only real solution for identifying the non-technical loss component from transmission and distribution losses is through studies at the distribution utility level. Technical losses can be isolated at substations, and the differences with end-use consumption calculated from that point. Unfortunately, such studies are not conducted on a consistent or industrywide basis.

To get a magnitude measure of the impact of non-technical losses on revenue for purposes of this study, the approach is to examine aggregate measurements of revenue and "distribution" losses from reliable government statistical sources and apply ratios from various industry surveys and reports. The available data sources and their limitations must be taken into close account when considering the accuracy of the results. Economic loss levels tend to be system-specific. In the end, the resulting measure of revenue impact from non-technical losses is an order of magnitude estimation. Nonetheless, this approach is sufficient to demonstrate the value of each distribution utility taking its own measure of non-technical losses.

Data Sources

Data on revenue losses from non-technical losses are extremely difficult to come by. Data on non-technical losses are not collected by the Energy Information Administration (EIA) or industry associations. Data on the revenue attributable to those losses are not collected or estimated on an industrywide basis. Electric utilities consider these data confidential because they have implications for operating and financial performance.

Statistics on net generation and "transmission and distribution losses and unaccounted for," measured in kilowatt hours, are available in the Annual Energy Review.[8] Statistics on revenue from retail sales to ultimate customers and the supply and disposition of electricity are available from the Electric Power Annual.[9]

The most exhaustive study on revenue *metering* losses per se was made by EPRI in 2000.[10] The focus of this study was metering, anomalies, metering integrity, and theft rather than revenue and the full economic impact of non-technical losses.[11] This study was conducted before the benefits of automatic meter reading (AMR)/AMI had become noticeable. The study looks forward to that day though in its conclusion.

> "[Utilities have] a strong interest in quantifying these losses to assess their full effect on utility revenues and to provide a basis for mitigating technologies, such as Automatic

[8] Table 8.1 Electricity Overview, 1949-2006, Report No. DOE/EIA-0384(2006), Annual Energy Review 2006.

[9] Table 7.3 Revenue from Retail Sales of Electricity to Ultimate Customers by Sector, by Provider, 1995 through 2006 and Table ES2 Supply and Disposition of Electricity, 1995 through 2006, Electric Power Annual. October 22, 2007.

[10] *Revenue Metering Loss Assessment*, EPRI, Palo Alto, CA, Arizona Public Service Co., Phoenix, AZ, National Grid USA, Worcester, MA, South Carolina Electric & Gas Co., Columbia, SC and Baltimore Gas & Electric Co., Baltimore, MD: 2001. 1000365.

[11] Ibid. For example, the definition of meter/billing errors states, "Included in this class are all scenarios involving personnel actions, where 'people errors' compromise metering integrity because of inexperience, inattention, lack of review, and lack of training. … Meter mis-installation falls into this category."

Meter Reading (AMR), and the development of other future programs to reduce non-technical losses."[12]

The Office of Gas and Electricity Markets in the United Kingdom has conducted a number of studies evaluating the cost of distribution losses, including non-technical losses and also illegal abstractions (tampering with meters and illegal connections).[13]

Statistics

Aggregate statistics for transmission and distribution losses are presented in Table 1-1, along with revenue for the corresponding year. From this data the relationships and trends can be observed that offer insights into transmission and distribution losses, technical and non-technical, at a global level. As stated previously in the section on data sources, unfortunately these are the only statistical series that are available that offer an objective and consistent measure of the relevant variables at any level, from generation to end-user.

Table 1-1
Statistics

Key Statistics							
Year	Net Generation + Imports (million kWh)	T&D+UFE Losses (million kWh)	Ratio	Revenue from Retail Sales ($ million)	Revenue Loss T&D+UFE	Revenue Loss per million kWh	Rev Loss 2.0%
1996	3,487,684	230,617	6.6%	212,609	14,058	0.0610	4252
1997	3,535,204	224,380	6.3%	215,334	13,667	0.0609	4307
1998	3,659,809	221,056	6.0%	219,848	13,279	0.0601	4397
1999	3,738,025	240,086	6.4%	219,896	14,124	0.0588	4398
2000	3,850,697	243,511	6.3%	233,163	14,745	0.0606	4663
2001	3,775,144	201,564	5.3%	247,343	13,206	0.0655	4947
2002	3,895,231	247,785	6.4%	249,411	15,866	0.0640	4988
2003	3,913,575	227,573	5.8%	259,767	15,105	0.0664	5195
2004	4,004,765	265,918	6.6%	270,119	17,936	0.0674	5402
2005	4,099,950	264,479	6.5%	298,003	19,223	0.0727	5960
2006[P]	4,095,321	250,918	6.1%	326,506	20,005	0.0797	6530

[12] Ibid.

[13] *Electricity Distribution Losses*, Office of Gas and Electricity Markets (UK) January 2003.

Transmission and Distribution Losses, Unaccounted for Energy

"Transmission and Distribution Losses and Unaccounted for" (T&D+UFE) is calculated as the sum of total net generation and imports minus total end use and exports.[14] Transmission and distribution system losses, including "unaccounted for energy," are generally defined as a percentage of the difference between total energy input to the network and sales to all customers.

These losses, as the global statistical measure of both technical and non-technical losses, are commonly compared to the aggregate of "Net Generation and Imports" to provide an indication of their magnitude and impact. This comparison is shown in Figure 1-1.

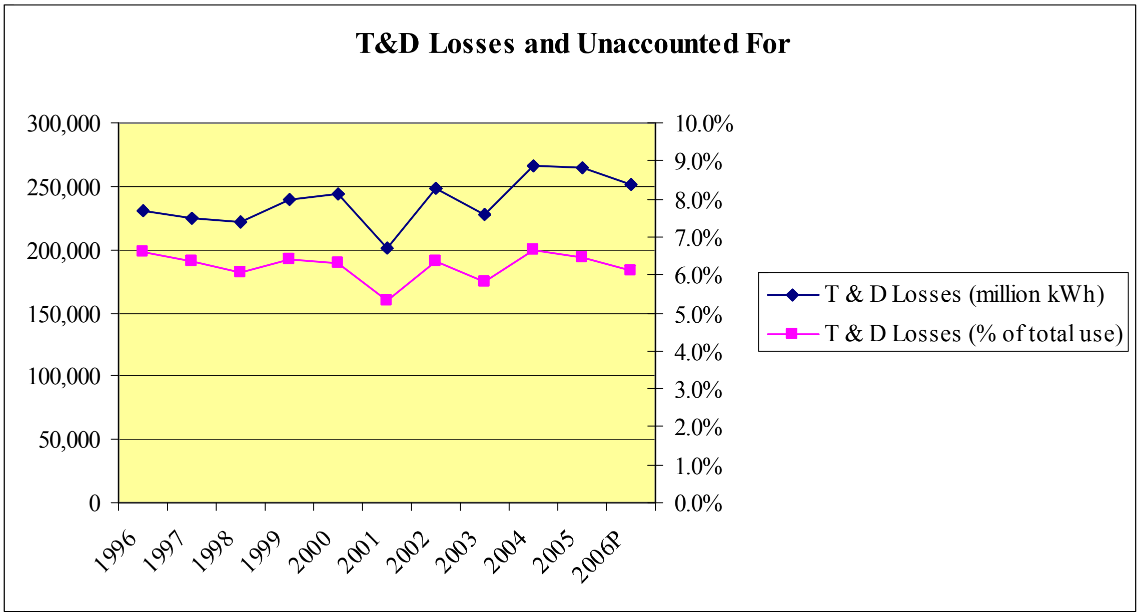

Figure 1-1
T&D Losses

Net Generation and Imports increased from 3.5 quadrillion kWh in 1996 to 4.1 quadrillion kWh in 2006, or 17.4%. Over that same time period, T&D+UFE increased from 230.6 billion kWh to 250.9 kWh, or 8.8%.

The average loss ratio of T&D+UFE to Net Generation and Imports was 6.2% over the eleven years from the beginning of 1996 to the end of 2006.

Revenue and Loss Trends

Revenue increased from $212.6 billion in 1996 to $326.5 billion in 2006, or 53.6%, while T&D+UFE increased only 8.8%. The trend lines for these increases are shown in Figure 1-2. For purposes of this study, it is significant to note that the trend for revenue increases is greater than T&D+UFE. This has a major impact on the importance of revenue loss from non-technical losses.

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[14] *Annual Energy Review 2006*, Energy Information Administration, Department of Energy.

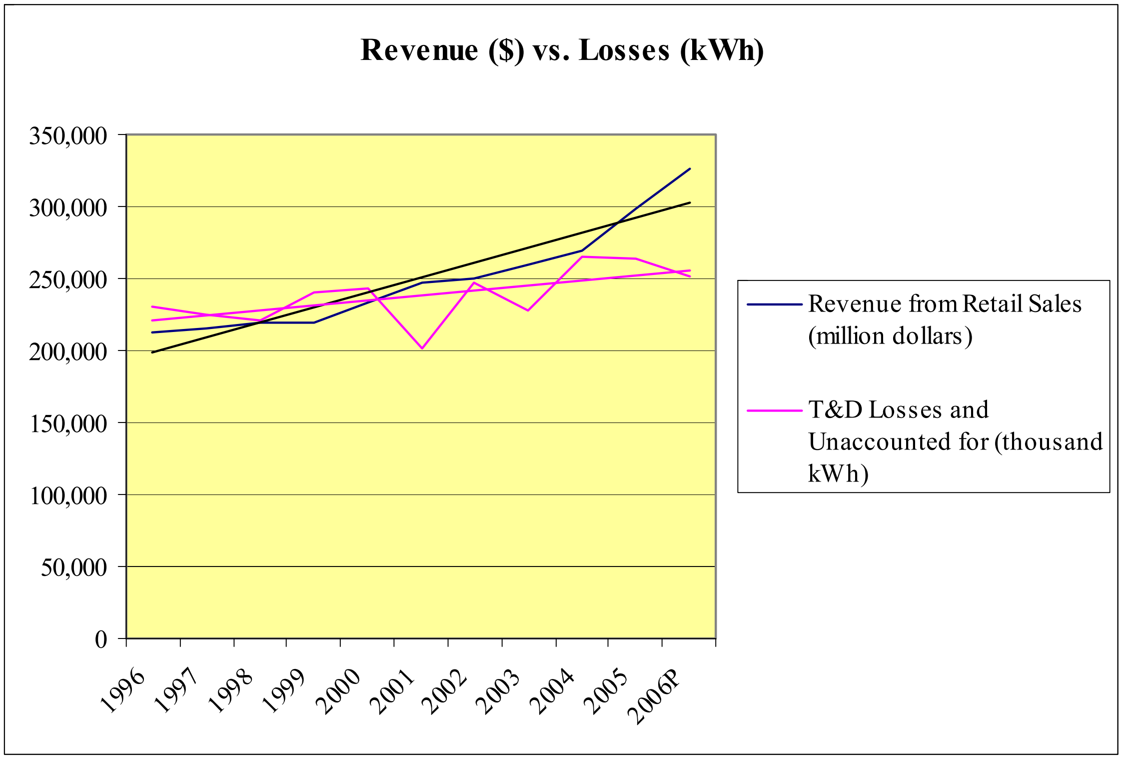

Figure 1-2
Revenue ($) vs. Losses (kWh)

Non-Technical Revenue Loss Estimate

It is difficult to ascertain the extent of technical and non-technical distribution losses separately. The reasons for the difficulty in estimating non-technical losses are discussed in the section on measurement above. For purposes of comparison, and again to get an order of magnitude view of the importance of non-technical revenue losses, a percentage of 2% is most often cited by experts in the industry (Figure 1-3). Applying a constant for the loss ratio, non-technical revenue losses parallel the global.

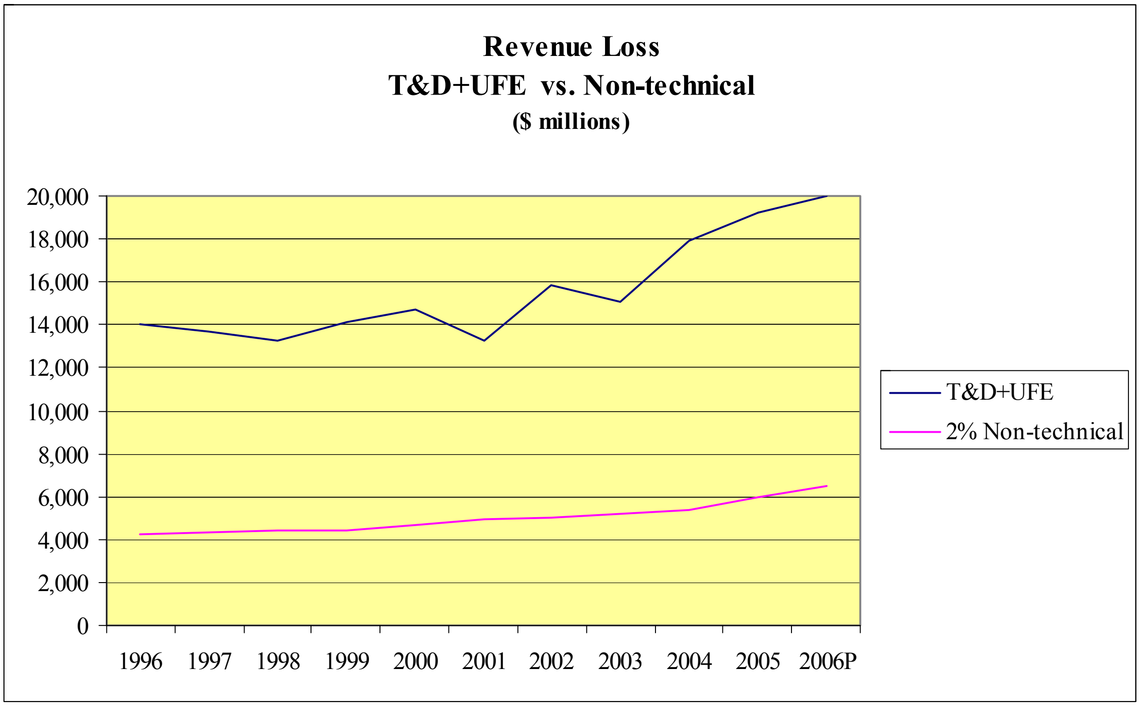

Figure 1-3
T&D+UFE vs. Non-Technical

Revenue Loss per kWh

With revenue rising at substantially higher rates than T&D+UDE losses, revenue loss per kWh is dramatically impacted. Each unit of technical and non-technical losses carries a higher revenue cost, just as each billed kWh carries a higher rate. The upward trend in revenue loss per kWh is shown in Figure 1-4.

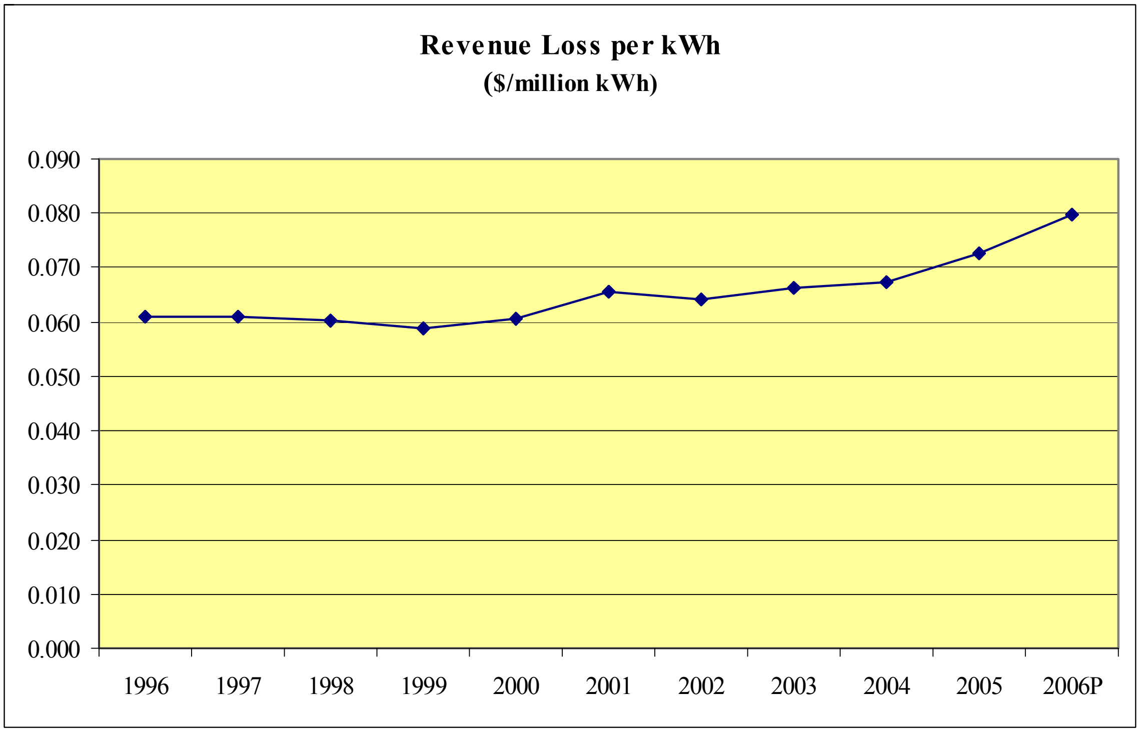

Figure 1-4
Revenue Loss per kWh

Whatever other inferences may be drawn from the data or conclusions reached about technical and non-technical losses, the fact remains that the revenue loss per kWh is increasing. The increases in these losses may be attributable to technical or non-technical components. However, it is most likely that they are more a function of revenue increases themselves. Energy costs have risen over the past decade, and this naturally is reflected in the value of units sold or units lost. Suffice to say, each kWh of reduction in non-technical loss brings the recovery of more revenue today than it did ten years ago.

Assuming that the ratio of non-technical losses to generation remains the same, the value of non-technical losses measured in $/kWh will be higher in terms of revenue. This should be taken into consideration when comparing the revenue losses in earlier studies (prior to 2002) to revenue losses today.

Non-technical revenue loss is greater today than ten years ago, placing greater importance on measures for their reduction.

Studies and Reports

Arizona Public Service Study

After reflecting on several reports and surveys from 1997 to 2000, the Revenue Protection Department at Arizona Public Service (APS) came to the conclusion that "available information regarding energy theft continued to be subjective, at best."[15]

The revenue protection team at Arizona Public Service Company decided to conduct a study of its own.

Two prior studies provided direction and information regarding the amount of various meter problems found in the field and could cite specific percentages. One study by United Energy determined that 2.16% of its meters were faulty. The other study, by the Canadian Electricity Association, found deviations (meter tampering), that would certainly lead to diversion, were definitely occurring across Canada. The average rate for these deviations (tamper rate) was 1.36%.[16]

The goal of the research study at APS was to determine the dollar amount of loss to theft and diversion.

The data in the APS study pointed to a much higher percentage loss among commercial accounts. Of the $7.9 million actual/probable loss, $5.1 million was attributed to commercial accounts. And, similar to the Canadian study, a large number of meter maintenance items were noted. Fully, 6.5% of the meters in the study had some type of maintenance problem.

The APS study concluded that 1.72% of meters were subjected to some form of tampering and that the associated revenue loss was $7.9 million, or 0.518% of revenues.

EPRI Study

The EPRI study on revenue metering loss assessment in 2001[17] concluded that there is "a widespread but unsubstantiated impression in the utility industry that revenue loss from all non-technical sources (excluding bad debt) is between 3% and 4% of utility revenue. Based on this work, we conclude it is far more likely that such losses are between 1% and 2%, and almost certainly are less than 3%. Of course, there will be exceptions in some utility territories. But today's well-managed utility with proactive revenue protection programs should fall below 2%.

[15] *Research Study Quantifies Energy Theft Losses*, John J. Culwell, Supervisor, Revenue Protection Department, Arizona Public Service, Metering International - Issue 1, 2001. January 29, 2001.

[16] Extent of Energy Division on Customer Premises for Canadian Utilities.

[17] *Revenue Metering Loss Assessment*, EPRI, Palo Alto, CA, Arizona Public Service Co., Phoenix, AZ, National Grid USA, Worcester, MA, South Carolina Electric & Gas Co., Columbia, SC and Baltimore Gas & Electric Co., Baltimore, MD: 2001. 1000365. This report describes three field studies at three utilities in the United States that inspected meters at over 1000 small- and medium-sized industrial and commercial sites and discusses the available options for utilities seeking to reduce their metering losses.

"Measured in dollars, this gives the following result: A 1.5% average loss corresponds to about $30 million annually for a utility with a million customers and $2 billion of revenue. This equates to about $30 per customer. If the loss is at the upper end of the range, that is 3%, the loss for the same utility corresponds to about $60 million per year, or $60 per customer."

Itron Report to U.S. Department of Energy

In a report submitted to the U.S. Department of Energy in 2005 Itron stated,

"… theft of energy services costs utilities, their shareholders and consumers billions of dollars each year. The consensus estimate among most industry groups and analysts is that energy theft in the U.S. stands between .5 percent and 3.5 percent of annual gross revenues. With U.S. electricity revenues at $280 billion in the late 1990s, theft of electricity alone would equate to between $1 billion and $10 billion annually. A recent article in the Wall Street Journal estimated the nationwide electricity theft figure at $4 billion per year. And with energy prices increasing sharply nationwide, theft of energy services is only likely to increase as consumers struggle to pay energy bills that have doubled or tripled over the past year."[18]

San Diego Gas & Electric

SDG&E demurred from the CPUC Framework for Business Case guidance that benefits from the reduction of theft were non-quantifiable. It proceeded to quantify benefits from AMI in its own business case based on its own estimates of theft. SDG&E claimed $69.4 million in benefits associated with reduced energy theft (both electric and gas), improved meter accuracy, and reduced billing exceptions.[19]

In its opinion approving SDG&E's AMI project, the CPUC stated,

"At the time of the July 2004 Ruling, it was not clear whether energy theft benefits would be quantifiable. That Ruling did not rule out future quantification of benefits. SDG&E has in fact quantified these benefits. We have reviewed SDG&E's calculations of energy theft benefits and find them to be reasonable."[20]

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[18] *The Critical Role of Advanced Metering Technology in Optimizing Energy Delivery and Efficiency,* A Report to the U.S. Department of Energy, Itron. October 2005.

[19] *Meter Reading and Customer Service Field Functions, Safety, Billing and Revenue Protection*, Application of San Diego Gas & Electric Company (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design, Application 05-03-015, Chapter 3, Prepared Supplemental, Consolidating Superseding and Replacement Testimony of James Teeter, SGD&E before the CPUC, March 28, 2006.

[20] *Opinion Approving Settlement on San Diego Gas and Electric Company's Advanced Metering Infrastructure Project*, Application of San Diego Gas & Electric Company (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design, Application 05-03-015, CPUC. March 8, 2007.

However, there was a procedural qualifier:

"It is unreasonable for SDG&E to include benefits which are not within the scope of benefits envisioned for this proceeding and therefore operational benefits should be reduced by $14.5 million."

Further, SDG&E claimed that no more than 0.65% of electricity revenue is lost due to meter error, energy theft, and unaccounted for energy, including meters that fail and mechanical meters that slow down over time as mechanical parts wear out.

In response to a CPUC data request, SDG&E reiterated that many references provide industry estimates for energy theft and all are consistently in the 1-2% range. The explanation for the basis of this figure was that total losses are not known. Field studies at samples of meter sites uncovered approximately that number of incidences of theft, and five sites published studies that report theft in that range.[21]

Hydro One Estimate

Non-technical losses were estimated by Hydro One by reviewing losses from theft, meter inaccuracies, and unmetered energy in other jurisdictions. Based on an overview of the non-technical losses value from utilities across North America, United Kingdom, and Australia, a value of 1.2% was recommended as a reasonable estimate.

Published figures for the level of non-technical losses in North America are very difficult to obtain. In California "unaccounted for energy" is defined as the difference between the energy purchased and the energy sold in a utility service territory after accounting for imports, exports, and technical line losses. This includes the first three categories of non-technical loss listed above. Estimates from different utilities range from 3.9 to 5% of energy sales.[22]

Published figures for theft alone in the United Kingdom estimate levels at 0.2 to 1% of energy sold. The upper limit of this range is used in Australia by regulatory commissions as a reasonable estimate in the calculation of distribution loss factors.

"In the past Hydro One has used a figure of 10% of the technical losses to estimate non-technical losses. With technical losses at approximately 6% of energy sold, this represents only 0.6% of energy sales as an estimate for non-technical losses. This is well below (<15%) the published figures for utilities in North America and is less than that used in Australia or most of the United Kingdom. A more reasonable estimate for theft and other non-technical losses would by 1.2% of energy sales."[23]

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[21] DRA Data Request Number 15, A.05-03-015, SDG&E Response.

[22] *Comments of the California Energy Commission Staff on the Report on Unaccounted for Energy and Upstream Metering*, Caryn Hough.1998.

[23] Distribution Line Loss, Exhibit A, Tab 15, Schedule 2, 2006 Distribution Rate Application (EB-2005-0378), Filed August 17, 2005.

Industry Reports

Industry experts estimate that on average, utilities are losing between 2% and 4% in revenues in the meter-to-cash cycle. Studies on electric and gas meter-to-cash cycle losses, also referred to as non-technical revenue losses, indicate that 80% of these losses can be attributed to theft, defective metering, and soft shutoff policies.[24]

Limitation

Some estimates of loss percentages (for example, the 1.5% figure) seem to be predicated mostly on losses from theft. Most of these loss estimates include only the detection of simple energy theft. There may be thefts that are not detected due to sophisticated bypass.[25] Other contributors to non-technical losses, such as defective meters and billing errors, should be given greater weight when deciding on the most likely percentage. Thus, the 1.5% figure is considered as being at the low end of the estimate for non-technical losses.

Revenue Loss

Considering the referenced studies and reports, statistics and analysis, and the opinions of industry experts in revenue protection, a reasonable percentage for non-technical losses is 2.0%. There are indications that the associated revenue loss might be at a lower level, say 1.4%. Some individual company studies suggest that the ratio for revenue losses is lower than the percentage for energy losses. An opposing argument points to the revenue effect due to higher rates reflecting rising energy costs. Nonetheless, for purposes of this study and for comparisons with other estimates in the industry, applying the 2% ratio to revenue seems credible.[26]

The statistical measures for technical and non-technical losses in terms of energy are relatively constant at around 6.1% in the United States. Although there are reasons to argue that technical losses have increased over the past ten years due to congestion, these technical variances are not thought to be greater than the variance in the ratio for losses using aggregate figures. A major study of transmission and distribution losses would be required to conclude otherwise.

Although the statistical measures do not differentiate between transmission and distribution losses, let alone identify non-technical losses (which are, after all, "unaccounted for"), the ratio for non-technical losses measured in terms of energy units cannot reasonably be larger than 4%, given the relative constancy of transmission losses.

[24] Ken Silverstein, Editor-in-Chief, *EnergyBiz Insider*.

[25] There are reasons for bypassing the electric system than avoiding payment. One is the concealment of illegal activity. For example, the main source of electrical theft in Canada derives from indoor marijuana grow operations. The Electricity Distributors Association (Ontario) says statistics show grow operators steal an average of $1500 of electricity per kilowatt-hours per day or 10 times the electricity consumption in an average home. Estimates in Ontario, Canada, alone list over a $500 million power theft loss. Reports of seizures of large indoor grow operations list over a 90% electrical theft/bypass rate.

[26] In the absence of industrywide studies of technical and non-technical losses using a consistent methodology, this is a reasonable and sufficient basis for a discussion of the impact of AMI on non-technical losses.

The findings of numerous studies vary widely with respect to the level of non-technical losses, and even more so when imputing non-technical revenue losses.[27] Estimates of tamper rates range from 1.36% to 1.72%. Metering surveys indicate that defective meters may range from 2.16% to 6.5% of the total installed base. Related revenue losses are imputed anywhere from 0.50% to 3.5%. Many of the differences among these estimates derive from analyzing different customer bases and service territories while other differences relate to measurement difficulties with technical losses.

Estimates of non-technical revenue losses range from 0.5% to 4.0% of annual revenue. The 0.5% estimate is so low as to be almost a margin of error in estimation. Most likely, it relates to simple tampering, excluding by-pass and other sources of non-technical losses. The 4.0% estimate is unrealistically high, most likely based on worst-case scenarios.

Non-technical revenue losses most likely fall within a much narrower range: 1.65% to 2.15%, depending on the utility and service territory. Non-technical revenue losses, within this percentage range, over the past ten years are shown in Figure 1-5.[28] A "mode" of 2% would appear reasonable and reflective of the impact on distribution utilities.

[27] Tamper rates and meter defect information are largely taken from surveys, not a complete census of customer bases. These are subject to wide variances, especially between utilities with different customer mixes. With few surveys at a limited number of utilities, it is difficult to apply them on a global scale.

[28] It should be kept in mind that the growth in non-technical revenue losses over the past ten years is a function of both the level of revenue and the non-technical loss rate. Utility revenues have increased significantly over the past ten years with the rise in energy costs. Thus, even while assuming a constant non-technical loss ratio and undertaking vigorous revenue assurance measures, the impact on revenue is increasing significantly. Further, high costs and rates may lead to increased theft by tampering and diversion by changing the risk/reward ratio. High costs make the "reward" more attractive; AMI/MDMS is a resource for increasing the "risk."

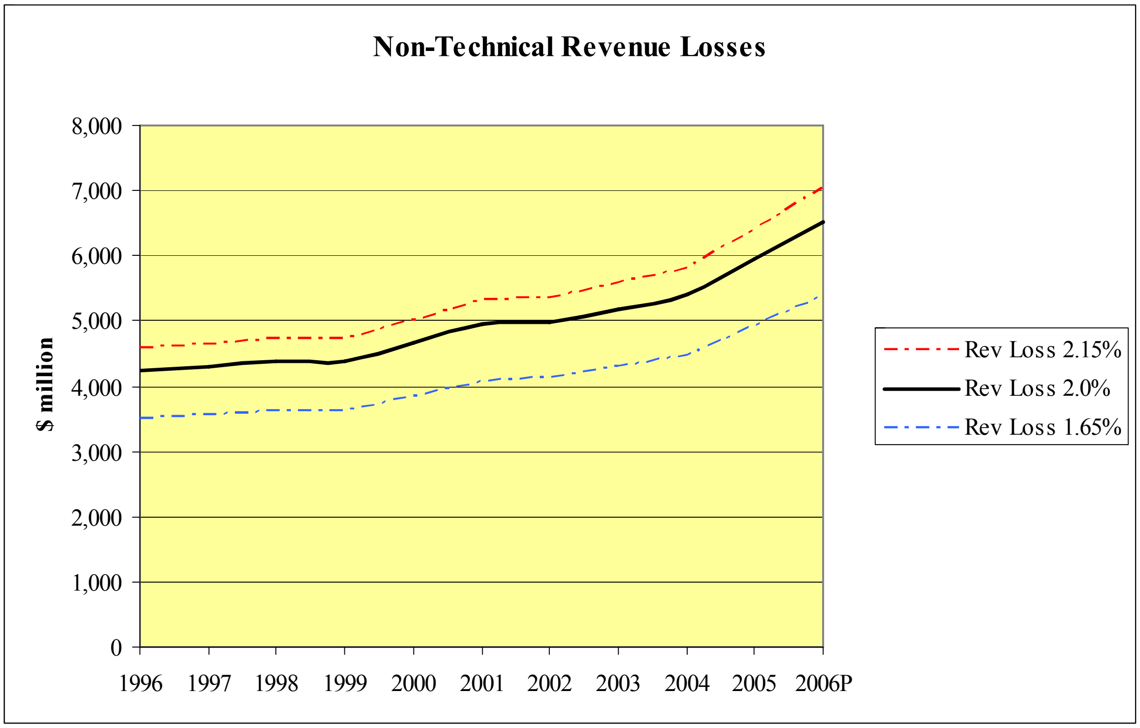

Figure 1-5
Non-Technical Revenue Losses by Year

Based on the 2% rate, non-technical revenue losses are estimated at $6.5 billion for 2006.

International Comparisons

United Kingdom

During the 1980s, some UK electricity companies were losing 2-½% of their total sales because of illegal abstraction (theft) alone. The worst hit areas were London, Merseyside, and Glasgow, with the Northeast having the least amount of theft losses.

Data concerning losses were gained by inter-company comparisons, statistical studies, and engineering studies along with comprehensive studies on street lighting loads to determine distribution system losses and units used in unmetered supplies. This work was underpinned by a number of substation metering exercises whereby meters on particular feeder cables in substations were used to compare the summated meter readings from the properties supplied by those cables.[29]

[29] *Theft of Electricity (Illegal Abstraction)*, Comments and Observations, Terry Keenan, Senior Manager, Manweb, Fellow of the Institution of Electrical Engineers (UK). Comment on Ofgem's Theft of Electricity and Gas Consultation Document.

Overall, Manweb[30] concluded that distribution losses accounted for 5% losses, unmetered supplies (for example, street lights) accounted for 1% losses, and theft accounted for 2-½% losses. This was evidenced by the various studies, metering exercises, signs of serious interference found, and the number of successful prosecutions.

Estimates from four distribution utilities, however, indicate that non-technical losses account for about 3 to 9% of total losses on distribution networks in Great Britain.[31]

Other studies of theft alone in the United Kingdom estimate levels at 0.2 to 1% of energy sold.[32]

Ontario, Canada

Based on an overview of the non-technical losses from utilities across North America, United Kingdom, and Australia, Hydro One considers a value of 1.2% to be a reasonable estimate for Ontario.[33] This ratio is in line with typical losses incurred by other utilities with a similar mix of rural and urban customers in Ontario. However, it may be low when losses from meter bypass in rural areas are fully discovered and accounted for.[34]

Published figures for the level of non-technical losses in North America are very difficult to obtain. In California, "unaccounted for energy" is defined as the difference between the energy purchased and the energy sold in a utility service territory after accounting for imports, exports, and technical line losses. This includes the first three categories of non-technical loss listed above. Estimates from different utilities range from 3.9 to 5% of energy sales.[35]

India

The problem of electricity theft is most pronounced in India, where an estimated one-third of all power is "free." Many users there run their own wires from the distribution lines into their homes. This is a tremendous hazard as the cables are strung through populated alley ways and corridors.

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[30] Manweb, a subsidiary of Scottish Power, was among the first electricity companies to gain approval to enter the new market for electricity metering services to domestic and small business customers, which was opened up to competition in June 2004. Under the new arrangements, electricity suppliers have freedom to choose their own agent to collect and process meter readings and to provide and maintain metering equipment. These activities were previously provided on a monopoly basis by the local electricity company.

[31] *Electricity Distribution Losses*, Office of Gas and Electricity Markets (UK). January 2003.

[32] *Report on Distribution System Losses*, J.A.K. Douglas, N.J.L. Randles, PB Power report 10025D008, Victoria Australia. February 4, 2000.

[33] *Distribution System Energy Losses at Hydro One*, Kinectrics Inc. Report No.: K-011568-001-RA-0001-R00. July 20, 2005.

[34] Refer to the accounts of theft in Calgary, *Electricity Theft and Marijuana Grow Operations*.

[35] *Comments of the California Energy Commission Staff on the Report on Unaccounted for Energy and Upstream Metering*, Carolyn Hough, California Energy Commission. 1998.

Energy theft costs India's utilities close to $5 billion a year and is the major contribution to operating deficits.

These non-technical losses have costs well beyond the impact on revenue. The revenue losses impact the financial strength of the utility to the point that investments in infrastructure are prohibited. When energy is not paid for, the company is not recovering its costs and, thus, is unable to invest in new infrastructure. The result is regular power cuts. Without these investments, service degrades and further losses—technical and non-technical—ensue. For example, in May 2008 the Maharashtra State Electricity Board of India announced that it has been able to reduce non-technical losses by as much as 8% and says that, as a result, it will be able to reduce power cuts in the state.

United States

Losses in the United States in the 3% range seem low in comparison to India. However, when the related revenue losses are calculated, the number captures the attention of regulators and the electric utility industry. There are losers from non-technical losses in the United States as well as less developed countries.

Distribution Loss Ratios

Distribution loss ratios—calculated from generation to end-user—can be compared internationally (Figure 1-6). For developed countries, the ratio is lower than 8%, with non-technical losses in the range of 1.5% to 3.5%. For countries still developing, the loss ratios are more than double, with non-technical losses (mostly from theft) being the major explanation.

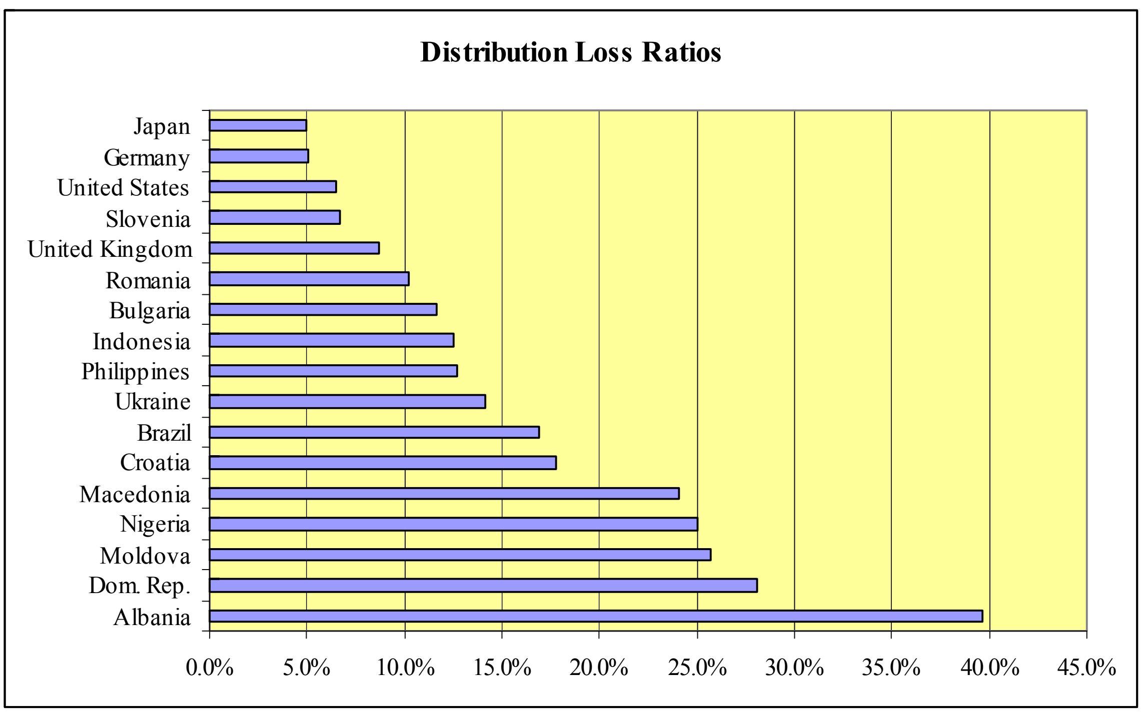

Figure 1-6
Distribution Loss Ratios

Revenue loss resulting from non-technical losses exceeds 40% in many developing countries.[36] Revenue losses of these dimensions have a significant impact on the local economy.[37] It is a problem that governments and utilities must address together. As one observer remarked, "The theft of energy is the largest systematic theft in the world."[38]

Losses Other Than Revenue

Safety

While theft of service is a huge source of revenue loss by any measure, more importantly it poses a serious threat to the safety not only of individuals involved in the theft, but also of utility personnel and the general public.[39] Meter tampering, bypassing, and other means used to steal service place those committing the theft, their families, emergency service personnel, and innocent bystanders in grave danger.

In situations where power must be shut off within a home or business, emergency personnel are at risk of electrocution or burning because meters that have been tampered with may remain "live."

Safety hazards can result in serious injury or death and destruction of public or personal property. These hazards have very real costs associated with them in terms of medical care, loss of productivity, damage to property, and sometimes even services with economic value.

Efficiency

Since losses are factored into the revenue requirement by way of distribution loss factors, and thus included in the rate base, some conclude that there is no real revenue loss to the distribution utility. In this view, reductions in non-technical losses merely shift the source of revenue for the utility among ratepayers. Aside from issues of basic fairness in having some ratepayers bear the burden of non-payment by other users of electricity, the existence of non-technical losses introduces basic inefficiencies into the distribution system.

Non-technical losses have an "efficiency cost." Although a reduction in non-technical losses will represent a reallocation of, rather than a reduction in, electricity consumption, the misallocation of resources introduces inefficiencies. Instead of a direct improvement in social welfare, a redistribution of benefits occurs from those agents whose consumption has been

[36] *Controlling Electricity Theft and Improving Revenue, Reforming the Power Sector*, Note Number 272, Public Policy for the Private Sector, World Bank. September 2004.

[37] For example, in India electricity theft leads to annual losses estimated at US$4.5 billion, about 1.5% of GDP. The losers are honest consumers, poor people, and those without connections, who bear the burden of high tariffs, system inefficiencies, and inadequate and unreliable power supply.

[38] Kurt W. Roussell, Manager, Revenue Protection, We Energies.

[39] *How Safe is your Utility from Theft of Service?* Revenue Protection Task Force, Energy Association of Pennsylvania. The objective of the Revenue Protection Task Force is to provide education to the public, law enforcement agencies, legislators, and regulators about the facts of energy theft in terms of frequency and quantity of theft.

identified to suppliers and general consumers. However, if consumed units of electricity are correctly allocated, cost signals should encourage a more efficient level of demand for electricity.[40]

The trend toward performance-based rate making highlights the issue of losses where their reduction may change this situation and put in place greater incentives for utilities to reduce non-technical losses.

The reduction of non-technical losses reduces these inefficiencies and rectifies a situation where "lost revenues from energy theft and failure to detect meter errors put upward pressure on rates." Ratepayers benefit when energy theft and meter errors are detected sooner and costs are shifted to the customer who actually used the energy."[41]

Then there is the question of basic fairness. "Although the total revenue requirement does not change through the reduction of energy theft, all law-abiding customers will have lower rates. This is a quantifiable and tangible benefit for our customers."[42]

Technical and commercial losses, however defined, affect allowed tariff levels through a two-step process as shown in Figure 1-7:

Step 1 – Calculation of T&C

$$\text{T\&C} = 1 - \left\{ \frac{\text{Energy Units Billed}}{\text{Energy Units Purchased}} \times \frac{\text{Collection in \$}}{\text{Billing in \$}} \right\}$$

Step 2 – Gross-up Calculation

$$\text{Allowed Units of power purchased} = \frac{1}{1 - \text{T\&C}}$$

Figure 1-7
Calculations

[40] *Electricity Distribution Losses*, Office of Gas and Electricity Markets (UK). January 2003.

[41] *Opinion Approving Settlement on San Diego Gas and Electric Company's Advanced Metering Infrastructure Project*, Application of San Diego Gas & Electric Company (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design, Application 05-03-015, CPUC. March 8, 2007.

[42] Application of San Diego Gas & Electric Company (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design, Application 05-03-015, Chapter 29, Prepared Rebuttal Testimony of James Teeter, SGD&E before the CPUC. September 7, 2006.

The level of losses, therefore, has a direct impact on the price of electricity consumed. The cost of losses is generally spread out over all users.

It must be noted that the full cost of technical losses on a network consists of not only the value of the electricity lost, but also the cost of providing the additional transportation capacity and the cost of the environmental impacts associated with the additional generation that is needed to cover losses.

Unmetered Demand

Loss in revenue results from the uncontrolled increase in demand from unmetered customers. Also, dissatisfied and angry customers can overload the system, which may lead to faults in the distribution network and load shedding with consequent loss of revenue from customers affected.

Energy Theft Impact on Revenue Ratepayer

Energy theft occurs and is a cost of doing business that is borne by all ratepayers. Any reduction in energy theft from the implementation of automated meters will enable SCE to spread its revenue requirement over more energy sales, thus reducing rates.

Edison Smartconnect™ Deployment Funding and Cost Recovery, Errata to Exhibit 3: Financial Assessment And Cost Benefit Analysis, California Public Utilities Commission. December 5, 2007.

Investigation and Prosecution

The adverse financial impacts of energy theft include lost revenues and the costs for investigation and prosecution. Although these costs are not included in non-technical losses, they are borne by ratepayers nonetheless.

Societal Cost and Theft Comparisons

The public is aware of losses from identity theft, stolen credit cards, hold-ups, and personal robberies. In contrast, the theft of electric and natural gas service, despite the magnitude of the problem, has not received much attention from the public or from regulators.

The cost of non-technical losses in electricity distribution to society can be placed in perspective by comparing it to property crimes.

In the Uniform Crime Reporting Program[43] (UCR), property crime includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. The object of the theft-type offenses is the taking of money or property, but there is no force or threat of force against the victims. The property crime category includes arson because the offense involves the destruction of property. Property crimes accounted for an estimated $17.6 billion dollars in losses.

[43] *Crime in the US, 2006* US Department of Justice, Federal Bureau of Investigation. September 2007.

Larceny-theft is the crime category closest to theft of electrical services. The UCR Program defines larceny-theft as the unlawful taking, carrying, leading, or riding away of property from the possession or constructive possession of another. Examples are thefts of bicycles, motor vehicle parts and accessories, shoplifting, pocket-picking, or the stealing of any property or article that is not taken by force and violence or by fraud. There were an estimated $5.6 billion dollars in lost property in 2006 as a result of larceny-theft offenses.

The revenue estimate for non-technical losses is $6.5 billion. A comparison of non-technical losses to other thefts crimes is shown in Figure 1-8.

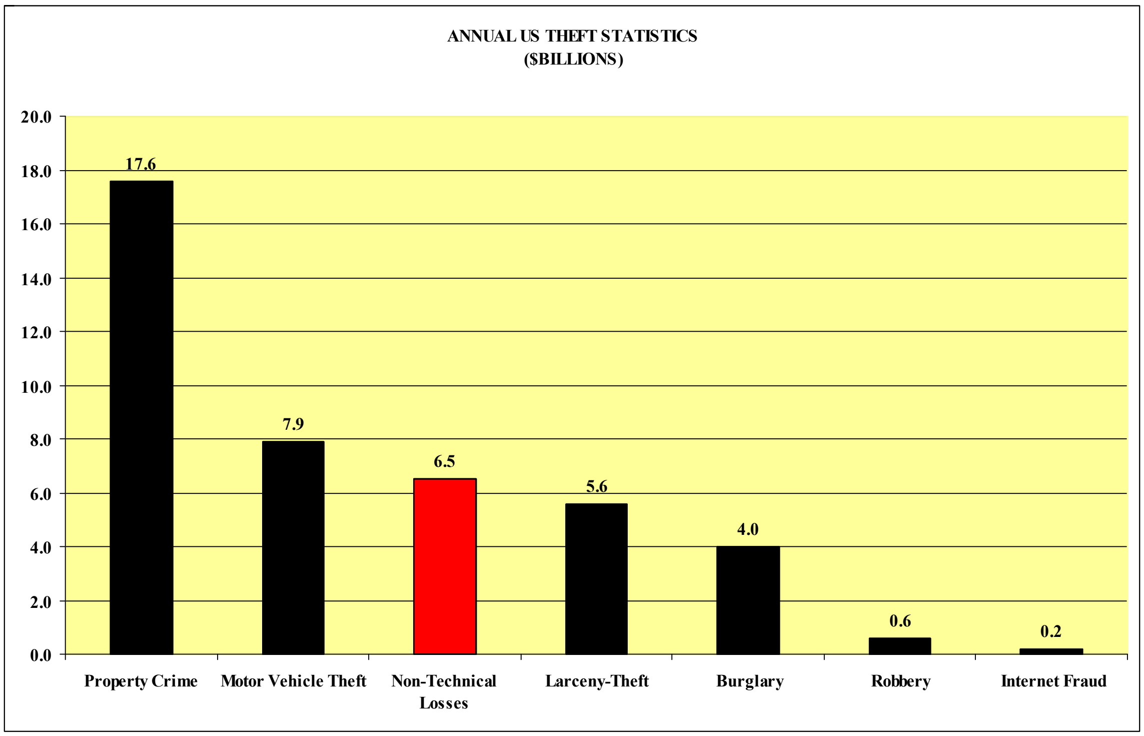

Figure 1-8
Annual U.S. Theft Statistics

2
CHAPTER 2

Revenue Security

"Revenue security" is an apt term to describe the activities intended to protect the distribution system and network resources from external attack or internal subversion, especially theft from diversion by means of "meter bypass." Revenue security ensures that the resources of the electricity industry are available only to those who have the legitimate right to use them. Thus, "revenue security" describes the precautions taken to ensure against non-technical losses.

The activities involved in revenue security are oftentimes called "revenue protection", or more recently, "revenue assurance." Three definitions are presented in the inset below.

Definitions

The term "Revenue Protection" is a colloquialism used by the English-speaking world to refer to the prevention, detection, and recovery of losses caused by interference with electricity and gas supplies.
UK Revenue Protection Association

Revenue Protection is a set of activities to reduce the unauthorized use of energy, ensure metering accuracy and detect meter tampering, and identify customers who fraudulently obtain service.
Kurt W. Roussell, Manager-Revenue Protection, We Energies

Revenue Assurance: A set of activities designed to increase the revenue from providing electric service to ultimate customers, including locating meters without associated customer accounts, relatively high line losses compared with other similar locations, energy theft, and/or improper metering installations.
Federal Energy Regulatory Commission (FERC)

The revenue security function is traditionally performed by utilities' revenue protection departments, using data collected by manual meter reads. The introduction of remote meter-reading technology—beginning with automated meter reading and later including advanced metering systems—changed methods and procedures used for revenue protection, eventually evolving to revenue assurance. These changes in technology and their impact on revenue security are the subject of this chapter.

Meter Readers: The Need for "Eyes in the Field"

The time-honored way of finding electricity theft is through detection by meter-reading personnel. Meter readers are trained and experienced in detecting theft from meter tampering and bypass, and they inspect meters for tampering during regularly scheduled on-site meter reads.

The methods of meter tampering vary from elementary to sophisticated. The ones most commonly detected by meter readers are shown in the insert below.

Common Tampering Techniques

- Stolen meter
- Magnets
- Wire tap on service
- Inverting meter
- Debris, foreign objects inside glass
- Potential link
- Internal—gears, disc, dial hands, adjustment screws
- Load (customer) wires connected to line
- Jumpers—wires connecting line to customer connection

There is some apprehension that AMI, notwithstanding the tamper detection mechanisms in AMI systems, may increase energy theft due to the loss of "eyes in the field" when meter readers no longer visit every meter every month. For example, AMI does not specifically detect and report some kinds of theft, such as taps ahead of the meter.

> "The overall conclusion is that AMR, although it can provide valid and useful assistance in the detection of theft and interference if the system is well thought out and well designed, is not the full answer and that it would be prudent to retain or develop some form of back-up, in terms of conventional revenue protection measures. For instance, one company with an AMR system is considering a new post of Meter Inspector to carry out periodic inspections of customer installations."[44]

There is a concern that AMI—especially after complete meter replacement—will lead to more sophisticated thefts and more bypass, both above and below ground.

Many of these apprehensions and misgivings are founded in experiences with earlier AMR installations. While these are valid concerns, a comparison of AMR and AMI should bring perspective.

[44] OFGEM Consultation on Domestic Metering Innovation, Response by the United Kingdom Revenue Protection Association, Version 3 (final). March 15, 2006.

Comparison of AMR and AMI

Energy theft detection capabilities in AMI systems are far superior to those in simple, first-generation AMR systems. The "infrastructure" in an AMI system includes information systems capable of processing large amounts of interval data for use in discovery of energy theft. This contrasts dramatically with AMR systems, which generally automate only the monthly consumption read.

Prior AMR (not AMI) installations involved tamper alarms so sensitive that false alarms could easily overwhelm the system. Unlike the AMR systems, AMI can intelligently sort and prioritize tamper flags, reducing unnecessary investigations. In addition, AMI, using solid-state meters, is far more tamper-proof than AMR. For example, a solid-state electric meter does not have a spinning disc that can be slowed down. Inverted meters also can be detected quickly through the daily collection of hourly data. Other forms of theft will be discovered through investigation of tamper flags.

AMI solutions involve the retrieval of daily or hourly consumption readings and use database information (comparisons with prior once-a-month readings) to identify locations where theft might be taking place. MDMS applications are essential in the delivery of these solutions. The effectiveness of these solutions is not yet fully documented, as AMI/MDMS have not been deployed on a wide scale over a long period of time. Nevertheless, all indications are that they will be successful when combined with aggressive revenue protection programs with well-trained meter revenue protection agents. With off-cycle reads being supplied through the MDMS, as much as 95% of field service orders for special reads can be eliminated.[45]

Many on-site inspections by traditional meter readers were focused specifically upon meter tampering and meter anomalies, but did not reach more deeply into supply and service wiring where taps and bypasses are likely to be found. AMI reduces the number of routine site inspections and allows the meter revenue protection agent to concentrate on serious issues of diversion.

AMI Contribution to Theft Reduction

After the installation of AMI, it is expected that utilities may uncover a substantial number of previously unknown sources of diversion. Indeed, some utilities are planning to add staff to handle the increased number of theft cases that will be uncovered.

"During the installation period, SDG&E will need six additional Meter Revenue Protection agents to handle the large number of energy theft cases the company anticipates discovering when the new meters are installed. There also will be some transitional costs during the first year to determine the best way to process false positive signals. After AMI installation is complete, SDG&E will require two additional agents to prosecute the large number of energy thefts we expect to uncover."[46]

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[45] *Meter Data Management System—What, Why, When, and How*, Hahn Tram and Chris Ash, System Engineer, Enspiria Solutions. August 29, 2005.

[46] *Meter Reading and Customer Service Field Functions, Safety, Billing and Revenue Protection*, Application of San Diego Gas & Electric Company (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design, Application 05-03-015, Chapter 3, Prepared

With comprehensive AMI/MDMS and vigorous meter revenue protection programs, the most likely outcome is that AMI will bring a reduction in non-technical losses due to theft.

Meter Reader Shortcomings

At the same time, it should be kept in mind that there is an existing level of theft occurring even with manual readers in the field. In some cases, field-level engineers have not been made responsible or accountable for the energy input to their areas, the energy billed, or the revenue. This inattentiveness contributes to non-technical losses.

The personnel best qualified to detect metering problems are often the ones responsible for the faulty metering installation in the first place. In some countries, meter technicians and readers are complicit in meter tampering and bypass.

Meter Defects

Real-time two-way communications offered by AMI allow a utility to detect meter defects that might degrade to failure before the utility could learn about them from manual meter reads at intervals that are often as long as six or twelve months. Furthermore, there is evidence that meter readers miss some amount of meter tampering.[47] There are instances when distribution utilities have discovered meter tampering when deploying AMI that had not been reported by meter readers.

Need for On-site Inspections Post-AMI Deployment

Periodic on-site visits by meter inspectors carefully trained to know what they are looking for are an essential tool in the detection of theft in a post-AMI environment. It is good practice to visit randomly and inspect meters on a recurring basis. Some utilities plan such inspections on a 5-year cycle.

Customers who engage in diversion activities usually act to prevent access for meter reading, and procedures to require and enforce inspection are essential. Traditional meter readers may not be trained for new, more creative methods of energy diversion and must be schooled to recognize the sophisticated tampering methods that may follow the deployment of AMI. In addition, it should be noted that with advanced metering technology, various system abnormalities can resemble power theft. Thus, the staff of revenue assurance departments must have a higher level of training, technical know-how, leadership, judgment, and inquisitiveness.[48]

Supplemental, Consolidating Superseding and Replacement Testimony of James Teeter, SGD&E before the CPUC. March 28, 2006.

[47] In an extensive study undertaken in the Merseyside area over a five-year period, Revenue Protection staff acted as meter-reading staff and gained valuable intelligence. It became apparent that meter readers were poor at recording signs of interference with, say, only 1 in 15 of them providing reliable reports. *Theft of Electricity (Illegal Abstraction)*, Comments and Observations, Terry Keenan, Senior Manager, Manweb, Comment on Ofgem's Theft of Electricity and Gas Consultation Document.

[48] *Pilferage of Electricity—Issues and Challenges*, G. Sreenivasan, Assistant Executive Engineer, KSEB; guest faculty, Engineering Staff College of India, Hyderabad.

The transformation from “meter reader” to “meter revenue protection agent” is a core change in the evolution from traditional meter reading to AMI.

> “The old-fashioned methods are dwindling.”
> Ron Jones, Residential Meter Services Manager, JEA

Meter Readers

Meter readers read electric, gas, water, or steam consumption meters and record the volume used. They serve both residential and commercial consumers. The basic duty of a meter reader is to walk or drive along a route and read customers' consumption from a tracking device. Accuracy is the most important part of the job, as companies rely on readers to provide the information they need to bill their customers.

Other duties include inspecting the meters and their connections for any defects or damage, supplying repair and maintenance workers with the necessary information to fix damaged meters. They keep track of customers' average usage and record reasons for any extreme fluctuations in volume. Meter readers are constantly aware of any abnormal behavior or consumption that might indicate an unauthorized connection. They may turn on service for new occupants and turn off service for questionable behavior or nonpayment of charges.

Median annual earnings of utility meter readers in May 2006 were $30,330. The middle 50 percent earned between $23,580 and $39,320. The lowest 10 percent earned less than $18,970, and the highest 10 percent earned more than $49,150. Employee benefits vary greatly between companies and may not be offered for part-time workers. If uniforms are required, employers generally provide them or offer an allowance to purchase them.

Tasks

- Read electric, gas, water, or steam consumption meters and enter data in route books or hand-held computers.
- Walk or drive vehicles along established routes to take readings of meter dials.
- Upload into office computers all information collected on hand-held computers during meter rounds, or return route books or hand-hand computers to business offices so that data can be compiled.
- Verify readings in cases where consumption appears to be abnormal, and record possible reasons for fluctuations.
- Inspect meters for unauthorized connections, defects, and damage such as broken seals.
- Report to service departments any problems such as meter irregularities, damaged equipment, or impediments to meter access, including dogs.
- Answer customers' questions about services and charges, or direct them to customer service centers.
- Update client address and meter location information.
- Leave messages to arrange different times to read meters in cases in which meters are not accessible.
- Connect and disconnect utility services at specific locations.

Work Activities

- Documenting/Record Information—Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Collect Information—Observing, receiving, and otherwise obtaining information from all relevant sources.
- Communicate with Supervisors, Peers, or Subordinates—Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Process Information—Compiling coding, categorizing, calculating, tabulating, auditing, or verifying information or data.
- Work Directly with the Public—Dealing directly with the public. This includes contact with customers, representing the organization to customers, the public, government, and other external sources. Information can be exchanged in person, in writing, or by telephone or e-mail.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, 2008-09 Edition.

Revenue Protection: Transition from Traditional to AMI

The first step in transitioning from traditional meter reading to remote was AMR, which replaced meter readers with remote meter reading via one way communications. The primary driver for this was savings on meter readers. This introduced difficulties with respect to theft detection. These difficulties were overcome with the evolution from AMR to AMI. AMI, coupled with MDMS, offers considerable advantages with respect to theft detection and the reduction of non-technical losses.

When AMR was introduced, there was an expectation that revenue protection would benefit greatly, and the need for revenue protection analysts and investigators would be greatly diminished. Tamper flags would be the solution. This did not prove out during large-scale deployment. In fact, AMR produced a flood of tamper flags that had the practical effect of being impossible to manage and, thus, being ignored. Except now, the "eyes in the field" were gone.

Most AMR meters have revenue-protection-related features that are useful for detecting novice tamperers, such as reverse rotation (meter being inverted by the customer) and magnetic presence (external magnets placed on meter in an attempt to reduce its registration).

However, there are limitations to AMR's ability to detect theft by experienced or professional tamperers who seek to defeat the system by installing taps ahead of the meter (for example, masthead), limit the ability to detect "last gasp" while installing bypass behind the meter, or using conventional tactics to slow disk rotation on retrofitted meters. Of course, stolen meters placed in-service by customers are difficult to locate.

Tamper Flag Problem

Several companies that have installed large-scale AMR have experienced problems with tamper flags. AMR has functionality for determining valid flags, but AMR supplies more information than utilities are able to monitor. There are problems with tamper data because of volume and the number of variables that must be taken into account for validation and separating the "urgent" and "genuine" interference cases from false alarms and technical faults. Utilities had to develop their own algorithms for dealing with this.

Further, AMR is not able to cover the types of theft that tamper flags do not report. It cannot detect diversions where the meter is bypassed completely (by "tapping" into the cutout or the wiring from it ahead of the meter). There is no way of detecting this, other than from analysis of consumption. Additionally, AMR is not able to monitor consumption and detect abnormalities which might be due to theft.

The solution to this is offered by AMI and MDMS.

The limited benefit of AMR for theft detection and problems with tamper flags pointed toward the need for MDMS, which only really came into its own later, when AMI was introduced. The awareness of data management requirements, after the experiences with AMR, was a major developmental turning point in the evolution of AMI applications for theft detection and non-technical loss reduction.

AMI provides information for detecting certain kinds of losses, such as detecting recurring tampers from upside-down meters and dial tampering, site and installation diagnostic problems, consumption on inactive accounts, and detailed data for trends and comparisons. However, AMI offers little or no protection from "one-time tampers" (adjustment screws, register tampering, magnetic circuit alteration, electrical circuit alteration or alternations external to the meter, magnets, disk "pinning", stolen meters and, most obviously, taps and jumpers.) These can only be detected using customer modeling (MDMS) and other revenue assurance tools as part of pro-active revenue assurance programs and systems, staffed by well trained and knowledgeable people. [49]

AMI provides a valuable tool to help utilities reduce lost revenue in each one of these areas, but AMI "… is only a tool—it must be coupled with *systems, people, and experience*."[50]

The transition in the detection process from traditional to AMI is summarized in Table 2-1.

Table 2-1
Comparison of Detection Process

Comparison of Detection Process
Traditional vs. AMI

Detection Process: Traditional	Detection Process: AMI	Change
Meter readers	Solid-state meters	Improved reading accuracy
Tips/utility hotline	Remote meter reading	Eliminates need for meter reader
Meter-reading reports	Two-way communications	Permits more frequent readings
Statistical analysis	Remote diagnostics	Discovers malfunctioning meters
Proactive sweeps	MDMS	Supports enhanced customer service
Collateral investigation	Meter revenue protection agents	Meter Audits

Transition to Revenue Assurance

In the 1970s and 1980s, these activities were called "current diversion." In the 1990s, they were called "revenue protection." Today, the preferred term is "revenue assurance." Revenue assurance conveys the full meaning of its role in a distribution utility, namely assuring that all the revenue owed the utility is collected.

Revenue assurance includes the following:

- Theft detection and follow-up
- Metering mistakes—for example, malfunctions, meter constants, and billing errors

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[49] One study reported an average accuracy of 35% using AMI flags with consumer models. This is much better than AMI flags alone (4%) and better than customer models alone (29%) and is considered a very good "hit rate." *Revenue Protection and AMI Come Together*, Ed Malemezian. June 25, 2007.

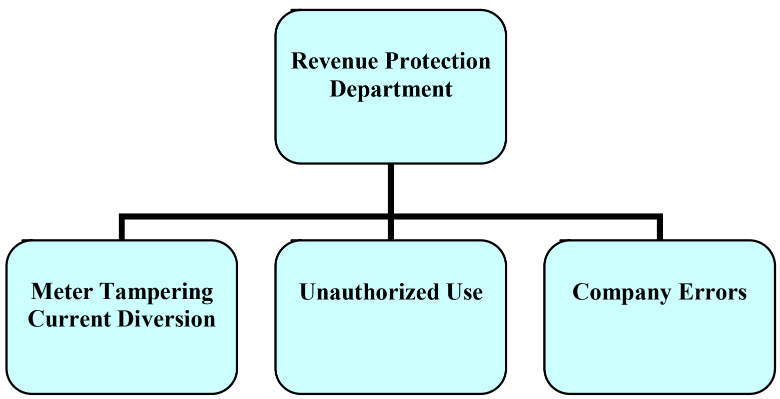
[50] *AMR Tamper Detection—The Good, the Bad, and the Possibilities*, Ed Malemezian

- Consumption on inactive accounts
- Collections

Revenue Protection Department

As revenue protection transitioned to revenue assurance, so did the responsible department and staff. The responsibilities remain the same, namely personnel training (mostly meter readers), receiving information on electricity theft from customers and staff, analyzing consumer load profiles for drastic changes compared to past trends, assessing charges for electricity theft and equipment tampering, and—if necessary—prosecuting clients who endanger themselves or field staff. The main source of information that utilities traditionally use to detect and prevent electricity theft is the meter-reading staff.

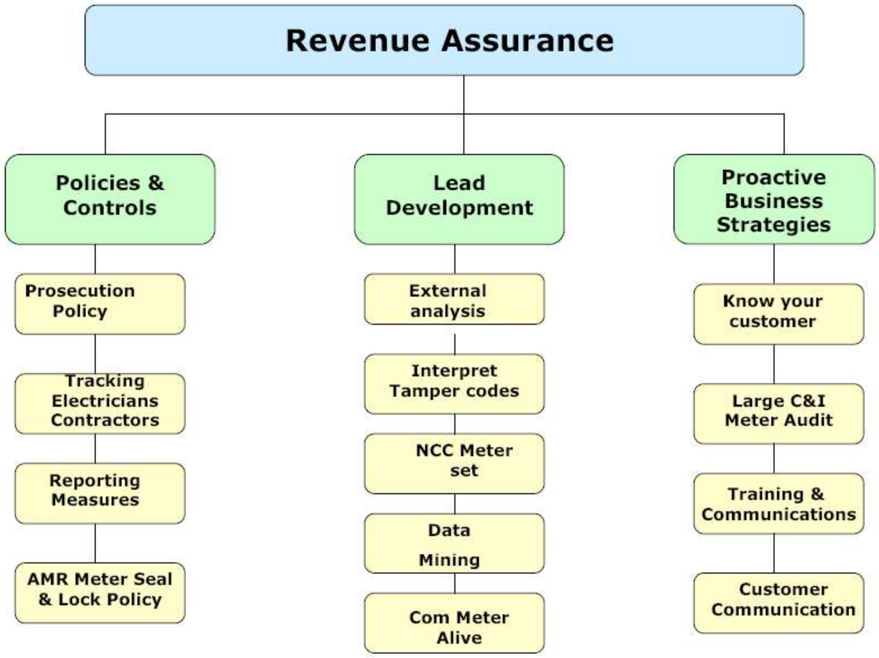
The traditional organization for discharging these responsibilities is illustrated in Figure 2-1. The three major areas where revenue (non-technical) losses were discovered by the Revenue Protection Department were meter tampering and current diversion, unauthorized use, and company errors.



Source: IURPA/WSUTA Conference, Las Vegas, Kurt W. Roussell, Revenue Protection, WEC.

Figure 2-1
Revenue Protection Department

Revenue assurance, on the other hand, is a term that describes the revenue security function as performed with AMI / MDMS. The new Revenue Assurance Department does not rely on manual meter readers—the "eyes in the field." Rather, there is a heavy reliance on policies and controls, lead development using analytical data and customer profiles, and proactive business strategies that include meter audits and customer communications. Meter readers are not absent from this department, but they are no longer depended on so extensively. Rather, revenue assurance with AMI relies heavily on MDMS, analytical tools, and analysts.
The organization of a typical Revenue Assurance Department under AMI is shown in Figure 2-2.



Source: NSTAR

Figure 2-2
Revenue Assurance

Revenue Protection Using AMI and MDMS

The AMI data collection front end detects and reports unexpected usage patterns. Typically, consumption profiles are established for each meter through automatic assignment of profiles using CIS supplied data and manually assigned profiles for specific or temporary situations. Each profile can consist of one or more checks. These checks can be enabled and disabled by the time of the year. They can be used to find diversions for monitoring seasonal meters. Drops in usage can be correlated by power outages for each meter as compared with other meters on the same transformer. All of the applicable checks need to be flexible enough to allow assignment of predetermined percentage changes in consumption, with day of the week and date range selection set up as required for each profile.

The Meter Data Management System (MDMS) receives additional information to aide in more filtering. Typically weather data, utility work order tickets, account status, and limited demographic data are brought in to aide in the filtering. Monthly and daily consumption data are collected and compared on a regular basis against profiles established for each customer. This data can be normalized by weather and other variable parameters. Effective usage is compared against baseline usage to generate candidate lists. These lists are then further filtered by additional information from tamper flags and more advanced consumption patterns to develop suspect lists. The suspect lists are organized and sent to the field for investigation. Various tools are often provided to drill down by customer and groups of customers.

The availability of interval data raises the bar to yet a higher level. Tools to compare actual interval usage against expected interval usage provide a much better picture in spotting the outliers. Advanced statistical techniques are used to generate appropriate algorithms that analyze the data. Science and art come together in making a success of this. Statistics also can be helpful in establishing confidence levels of the suspect lists, allowing the lists to be cranked up or down to match the availability of investigators to do the follow-up work.

Tests by transformer and geography provide another view of customer consumption patterns. When a utility utilizes account-to-transformer mapping, it allows the comparison of usage across similar homes served by the same transformer to look for low usage outliers, and to correlate changing usage patterns with blinks, reverse rotation, or other events. This mapping also enables comparison of transformer load to aggregated usage, if the utility installs additional interval meters upstream of the utility transformers. When meter data is supplemented with data from other sources, more views and points of comparison can be created. Examples include creative mining of other CIS fields such as the SIC Code or Customer Name to find groups of customers with similar names.

The Revenue Protection application receives all relevant data from the utility CIS, historical and present temperature data from an internet based source, triggered flags from the AMI tamper database, geographical information from external sources, SIC codes and NAIC codes from CIS, demographic data from paid or public sources, operating hours from public sources and feet-on-the-ground research, as well as daily and interval consumption data from the utility AMI or MDM systems.

Profiles and consumer models are built from sets of flexible rules. These are assigned to each account and analyzed on a regular basis. Tools include the ability to drill down by customer or group and to score each deviation from expected consumption patterns by numerous methods. Candidate lists and suspect lists are managed, and feedback is provided for both tracking results and improving the process.

Revenue Protection and AMI Come Together, Ed Malemezian. June 25, 2007.

MDMS Theft Reports

With the advancement of AMR/AMI, the traditional approach of identifying potential theft with a meter reader's visit to the site is becoming obsolete. Aided by MDMS, data analysis provides leads based on usage patterns and other data.[51] This is proving to be an effective approach to identifying theft.[52]

MDMS is used to turn AMI data into leads that can be followed up by revenue assurance teams. MDMS provides "automated exception processing" reports. An exception is when the system sees an event or data circumstance that it is not expecting. Examples with revenue-assurance relevance include meter readings that show lower consumption than expected, meters that do not report any consumption, and readings that show power being used at a supposedly vacant premise.

"Plus or minus 20" reports look at accounts where consumption has gone down by at least twenty percent. Data is reviewed over a thirteen-month period, ensuring that the information reflects seasonal usage patterns.

Another approach looks for unusual usage patterns, such as usage that drops off substantially on weekends. Through the MDMS, utility managers can compare unusual usage reports with power-outage and restoration reports that narrow down dead-end leads. This lowers the cost of collection.

Examples of Reports Using AMR/AMI Data[53]

- An "unplanned outage" report spotlights accounts with more than 10 outages in 30 days. About 40 percent of PECO's theft detection stems from this report.
- A "billing window" report detects meters turned on or off close to the billing period, indicating attempts to force low-balled estimates or pay for only a few days' worth of consumption. This report pinpoints around 35 percent of the utility's theft.
- A "reversed meter" report finds power-out and power-up messages that occur in quick succession if the customer unplugs the meter, then plugs it in upside down to make the register run backward. About 20 percent of PECO's theft shows up via this report.

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[51] AMR / AMI tamper indications are analyzed with detailed consumption data, outage information, tickets from work order systems, and numerous external demographics. Advanced analytics are used to establish baseline patterns and profiles for customer accounts. Outliers can easily be identified and followed-up according to procedures established by the revenue assurance department.

[52] For example, at NSTAR, revenue protection billings increased more than 130 percent, while the cost per case processed decreased by 25 percent. The improvement was due to leveraging the lead generation partnership and streamlining the process with automated reports, fewer handoffs and triage of theft cases. *Reducing Revenue Leakage*, Penni McLean-Conner, NSTAR. Electric Light & Power, July 2007.

[53] *Deputizing Your Data: AMI for Revenue Protection*, Betsy Loeff, Electric Power and Light.

AMI Remote Service Disconnect

In certain instances, utilities incur losses when customers leave without disconnecting. In these cases, the utility has active accounts without contracts. Oftentimes, it would take utilities a minimum of thirty days to find active accounts with no contract. This produces non-technical losses.

With AMI, service cut-offs can be "virtual," without dispatching a field service technician to the site. Instead, the utility takes a reading through the AMI system, sends a final bill to the departing customer, and leaves the premises ready for the next resident.

Sometimes the new resident does not call to set up an account after moving into a house or apartment. In these instances, a consumption threshold is set up. Once the threshold is surpassed, the MDMS automatically generates an order for a field service technician to shut off service.

Key Attributes for Revenue Protection—AMI + MDMS

Advanced Meter Infrastructure

- Full two-way communications
- Advanced meter capabilities with extensive diagnostics
- Exponential increase in meter reads and meter data
  Example (500,000 meters):
  1 monthly read = 500,000 reads/month
  1 daily read 500,000 reads/day, 15 million reads/month
  1 hourly read 12M reads/day, 360 million reads/month

Meter Data Management Systems

- Systems to create reports that analysts/investigators can use to research, investigate, and take corrective action
- Energy Diversion will become more innovative with smart metering (without manual meter reading). Data and analytical tools must be used to "outsmart the thieves"

Pros

- Better knowledge of unbilled revenues
- Notification of illegal reconnects
- Ability to examine consumption patterns from daily read information
- Ability to examine 15-minute interval data

Cons

- Loss of regular field visits to examine metering equipment
- Inability to determine connections ahead of the metering scheme
- The meter will tell you only what it sees—not what it doesn't see
- Unless additional services are known, unmetered (unbilled) revenue can occur for years
- The combination of these factors along with the rising cost of energy increases the potential for revenue loss significantly

Source: *Various Applications of Electric Metering & How They Relate to Revenue Protection*, Guy Cattaruzza United Illuminating NURPA. September 19, 2007.

Billing and Customer Service

Along with theft, the billing and customer service problems encountered by traditional manual meter-reading operations are contributors to non-technical losses.

Traditional Billing System[54]

Currently, meter readers travel to customers' meters each month to collect customer usage information (meter reads) with a hand-held data collection device.

These meter reads are used to prepare monthly bills. After the meter-reading route is completed, the customer's meter reads are transferred from the hand-held device to the customer information system. This data transfer must be done at a meter-reading base location. Back-office billing systems then perform a series of data validation routines that will, if warranted, automatically trigger a pre-billing review that may result in bill adjustments. The largest number of bill adjustments is due to meter-reading error.

When customers move from one residence or business to another, field service personnel must visit the meter and complete a "close order" or a "change of account" order to obtain the "end read" for the departing customer and a "start read" for the new customer. A certain number of these orders are "revert to owner" reads where service is left on for the convenience of property owners or managers when a tenant moves. Also, when meter-reading errors are suspected, field service must perform a "read verify" order at the customer's meter.

Billing System with AMI

AMI eliminates field visits as part of the billing process. Instead, utilities obtain meter reads electronically on the date a customer desires rather than on a service order schedule, which is subject to delay due to workload constraints. This reduces error and, thus, non-technical losses. It also improves customer service.

To prevent billing errors, once meter data is captured the billing system performs a series of billing edits prior to sending the customer bill. Despite comprehensive edits, some billing adjustments are required after bills have been sent. Other anomalies (billing exceptions) also are detected after completion of the billing cycle, such as meters in "off" status but registering consumption (OBR), meter failures, and unauthorized energy usage theft. With AMI, many of these billing exceptions will be eliminated and others will be detected more quickly, thus reducing non-technical losses.

Estimating

Estimating is one of the defining issues for which AMI offers a solution and contributes to the reduction of non-technical losses.

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[54] *Meter Reading and Customer Service Field Functions, Safety, Billing and Revenue Protection*, Application of San Diego Gas & Electric Company (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design, Application 05-03-015, Chapter 3, Prepared Supplemental, Consolidating Superseding and Replacement Testimony of James Teeter, SGD&E before the CPUC. March 28, 2006.

The vast majority of utility customers receive a monthly visit from their utility's meter reader. This meter reader visually reads the electric and/or gas meter, then forwards that information to the utility's billing office to generate a monthly consumption bill. If the meter reader is unable to access the meter,[55] most utilities will proceed to estimate the electricity consumption based on previous usage and recent weather patterns. They will then use that estimate as the basis for the next bill.

Exception reports are another area where estimates are made. After data are collected, they are analyzed, looking for exceptions such as missing reads, zero consumption, idle with consumption, out of range readings, and negative consumption. These transactions are placed in an exception file for review. Actions taken by revenue protection to correct the exceptions include reading, re-reading, checking for malfunction, checking for tampering, or accepting the read and estimates.

It is not uncommon for utilities—particularly those in higher-density urban areas—to estimate ten percent, twenty percent, even thirty percent or more of the meter reads each month for billing purposes. This practice leads to inaccurate billing, increased customer complaints, and higher costs for utilities to investigate and resolve those complaints.

AMI Solution to Estimating

AMI provides accurate, timely, and reliable information about energy use and demand that offers a solution for estimating.

AMI minimizes meter access problems, limiting them to meter installation and inspection upon suspicion of tampering or diversion. AMI eliminates estimated reads and improves meter-reading accuracy, which results in improved billing accuracy, fewer customer complaints, reduced call center traffic, and improved customer service.[56] Further, AMI reads remotely interrogate meters daily, rather than monthly. This identifies bad meters more quickly and avoids much of the estimating.

Thus, AMI offers a solution to estimating, which contributes to the reduction of non-technical losses.

Security

AMI avoids the security risk of giving keys and access to premises to meter readers. This is a concern of high importance in these security conscious times.

[55] A meter cannot be read when it is located in the basement and the consumer is not home; the yard is fenced with a locked gate and a dangerous animal in the yard; customers are threatening or hostile; extreme weather; or when the meter is dead, damaged, or missing.

[56] *The Critical Role of Advanced Metering Technology in Optimizing Energy Delivery and Efficiency,* A Report to the U.S. Department of Energy, Itron. October 2005.

AMI + MDMS Solution: Importance of Information Technology

A comprehensive revenue assurance program is based on AMI and MDMS.

This constitutes a "holistic approach to revenue recovery"[57] that combines expert analytical resources, data analysis software, internal utility customer asset data, and external data sources. This involves identifying data flow requirements and providing solutions to ensure timely and accurate billing. This requires the effective integration of AMI and MDMS with existing data systems in the utility.

Information Technology Integration

IT integration is a major participant in the transition from traditional meter reading and revenue protection methods to AMI and comprehensive revenue assurance programs. It's importance is underscored by the level of investment in most AMI programs. Indeed, back-room office applications are a large portion of the total AMI investment, ranging from a low of 5% to over 30%. IT integration is essential to the management and reduction of non-technical losses after the transition to AMI.

IT heavily influences the success of the AMI program and the integration of information systems using new MDMS that is essential for the success of the AMI program. The IT integration plan includes five major systems:

1. Meter Reading
2. Meter Inventory Management
3. Work Order Management
4. Customer Information
5. Revenue Assurance

Integrating these systems is a substantial and complicated task. This requires a high level of commitment from IT stakeholders.

When AMR systems were installed, primarily for savings in manual meter reading, IT integration was not a priority. However, when the data flows (such as tamper flags) became overwhelming, utilities needed applications to manage them. These were often provided through *ad hoc* custom programs developed internally by IT departments.

For this reason, it is advisable to include IT stakeholders from the beginning when making the transition to AMI. The commitment should be in terms of the project, resources, change management, and setting expectations for results. Commitment from IT stakeholders dramatically affects the success of the transition and results in reducing non-technical losses, both at the time of installation and throughout project life.

[57] *Discovering Unaccounted-for Energy with the Revenue Assurance Service*, Patty Seifert, Revenue Assurance Product Manager, Itron. 2007.

Revenue Assurance and IT Integration

The advent of AMI brings a total change to the conduct of revenue protection. If not preceded by AMR, the most obvious change is the elimination of manual meter reading as the primary method of data collection on meter tampering and theft.

Without the benefits of manual meter readers, revenue protection must supplement AMR/AMI with meter data management systems to compensate for the loss of functionality previously provided by meter readers. This involves integrating MDMS into the customer information system. The combination of data from AMR/AMI, MDMS, and customer information system (CIS) can be used to generate leads and profiles for target areas and customers.

Revenue Assurance, Metering & IT business units must come together early, prior to the deployment of AMI, to form a team separate from the deployment itself to develop a Revenue Assurance Transition Plan.

Transition to AMI—Information Technology
Issues that Impact Revenue Protection

- System reliability, data backup and disaster recovery
- Reporting / monitoring capabilities
- End of day vs. real-time 24/7
- Exception handling
- Secure access
- Customer information system integration
- Work order file definitions
- Customer data file management
- Meter reading / billing window ("blackout")
- Test and validation of upload/download processes
- Meter-reading systems integration
- Migration path
- Project size, schedule,and budget

Bob Donaldson, PE, PMP Progress Energy Carolinas Project Manager, Mobile Meter Reading.

Theft and Enforcement

New Methods of Theft

A major risk of realizing the full benefits of AMI for revenue protection is posed when customers learn to divert energy in new, unknown ways. Given historical data from AMR installations, this risk does not appear too great. Also, AMI endpoints have software and tamper sensors that are more sophisticated at detecting theft. Enhancements to back-office systems with new algorithms and heuristics to identify new types of theft are continuously being developed. Nonetheless, most certainly the ingenuity of a few customers will lead to some new types of theft. Distribution utilities need to be alert to new possibilities for theft and take them into account in their revenue protection strategies.

"The western countries and India have treated this as a criminal offence. But crooks always have the ability to keep one step ahead of the theft detection system. They stay in business purely through their flair to overcome any challenge that comes their way. They will find ways to be ahead of any anti-power theft detection system and will try to hoodwink the vigilance wing. Gone are the days of crude mechanical ways to tamper with the meter or divert electricity from main line. The R&D of electricity theft is moving faster than that of the best metering mechanisms, which was revolutionized with the advent of ICs and programmable logic circuits. Sharp minds frame laws and invent technologies; sharper minds find loopholes in it. Now power theft using the remote sensing devices, tampering of crystal frequency of integrated circuits; theft using harmonics, etc. have been developed."[58]

Customer Perception and Motivation

Far from deterring customers from theft, some distribution utilities have reported an increase in occurrences after AMI installation. Once some customers are aware that meter readers are no longer calling, they think that there is less likelihood of being caught. The technical aspects of dealing with advanced electronic metering are no deterrent. There is a wealth of data available on the internet on how to interfere with meters. Even consumption monitoring is not the full answer. Clever thieves know that they should gradually reduce consumption over a period to avoid detection by the relevant "filters."[59]

One new class of customers that are wittier than thieves in the past and have new motivations are "grow operations." These customers—the illegal growers—are motivated not by saving on electricity, but by not being detected as customers. This is a major source of non-technical revenue loss in Canada and parts of California.

AMI can be helpful in detecting theft by this new class of customer. An example from Sacramento, California, is noted in the following quotation.

"Energy theft is not high at all, but we have experienced a significant number of 'grow houses' springing up in the area. We see AMI assisting us in finding these houses from a transformer load perspective—it will tell us that we're sending out X amount of kWh and only billing for Y amount, and alert us to a potential problem."[60]

AMI systems that are deployed at the substation transformer and feeder level are particularly effective in detecting these thefts.

Enforcement

As the attention of regulatory bodies and the public is drawn to energy theft, new and better methods for detecting and finding instances of theft will be called for. AMI has much to

[58] *Pilferage of Electricity—Issues and Challenges*, G. Sreenivasan, Assistant Executive Engineer, KSEB; guest faculty, Engineering Staff College of India, Hyderabad.

[59] OFGEM *Consultation on Domestic Metering Innovation, Response by the United Kingdom Revenue Protection Association*, Version 3 (final). March 15, 2006.

[60] Erik Krause AMI project manager, SMUD

contribute to these methods. AMI offers significant tools to expedite both discovery and resolution of theft cases. It can be used to build intelligent databases for identifying trends and potential factors influencing future theft strategies and targets. This is an ongoing endeavor.

AMI makes more aggressive enforcement programs possible by 1) identifying high-probability targets for investigation and 2) gathering more evidence and constructing more convincing cases.

Meter bypassing can be proved only when it is observed at the time of inspection. The consumer can erase all traces of theft if the inspection is known in advance. This is a significant problem in many developing countries. AMI can help identify customers and locations with a high probability of meter tampering and diversion, thereby increasing the chances to observe theft.

Investigating Power Theft

Utilities often initiate probable cause investigations after a meter reader detects a broken seal or other indications of tampering. The meter reader reports the condition to a supervisor or power theft investigator, who then conducts the investigation. At this point, some utilities will contact their local law enforcement agency and an officer will accompany the utility investigator during the initial investigation.[61]

If the investigator finds evidence of tampering, evidence is collected and reports are prepared. The utility maintains the evidence and provides supporting documentation.

Evidence and Prosecution

Before a utility can file charges against a potential suspect, it must gather the following as evidence, documents, and appropriate statements:

- Tampering devices—These could include straps behind the meter, wires used in a bypass system, or other tampering devices or equipment relevant to the case.
- Meter report—This report shows that the meter was operating correctly when installed and demonstrates how the particular tampering method used would have affected the metering of electricity.
- Witnesses—These are witnesses who provide testimony. They include the meter reader who initially detected the possible diversion, the utility investigator, and the police officer who conducted the investigation.
- Account billing history—This report illustrates the time the theft began and the amount and cost of the stolen electricity.

Without manual meter reading and field service personnel, AMI and MDMS are now expected to provide much of the required documentation for theft investigations. With AMI, this documentation can be much more detailed and present more persuasive cases. For example, most utilities have account billing histories on each account's consumption and billing records on

[61] *Power Theft: The Silent Crime*, Karl A. Seger, and David J. Icove, FBI Law Enforcement Bulletin. March 1988.

a month-by-month basis. AMI provides information on a daily and hourly basis. This is necessary to detect more sophisticated theft techniques, such as "on offs" during the day.

The burden of this documentation is one reason that utilities prosecute only about 10% of cases.[62] The burden can be lessened considerably by using the data that AMI generates and the ability of MDMS to organize it into useable formats for preparing complaints for use by prosecution.

Installation Effect

AMI deployment requires replacing legacy meters with new meters that include two-way communications and diagnostic capabilities. This is a one-time opportunity to significantly reduce non-technical losses due to meter defects, theft, and billing.

> "AMI provides the opportunity for a 100% clean sweep."
>
> Ed Malemezian

Meter Defects

Although theft is a major source of non-technical losses, a significant percentage of non-technical losses arise from factors that utilities can control, especially those related to meter damage, failure, and errors.

"Although, numerous published papers imply that all revenue losses are a result of customer mischief, this is far from true. This project found that, at least in the small industrial and commercial sector, utility operations themselves are responsible for the larger share of lost revenue. Equipment failure, non-malicious equipment damage, incorrect meter constants or 'CT' ratios, meters in need of recalibration, etc. all contribute to revenue loss."[63]

These are largely due to problems with maintenance issues of electromechanical meters nearing the end of their useful life and the tendency of electromechanical meters to run slower as they age. The replacement of legacy electromechanical meters with electronic metering, as part of AMI deployments, should substantially mitigate this source of loss.

The installation of AMI itself, and the replacement of obsolete meters, will contribute greatly to the discovery and remedy of this source of non-technical loss.

A large proportion of meter problems, and nearly all of the failures, will be remedied by a competent AMI deployment that re-installs all meters. Finally, for the life of the AMI system, the AMI-equipped meters will detect and report many types of energy diversion and meter tampering.

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[62] Ed Holmes, Senior Consultant, Arnett Industries.

[63] *Revenue Metering Loss Assessment*, EPRI, Palo Alto, CA, Arizona Public Service Co., Phoenix, AZ, National Grid USA, Worcester, MA, South Carolina Electric & Gas Co., Columbia, SC and Baltimore Gas & Electric Co., Baltimore, MD: 2001. 1000365.

Some existing meters may be within the permitted accuracy tolerances and still under-register consumption. This is so small that it is not cost-effective to change the meters on an exception basis. However, the AMI deployment replaces every meter anyway, and brings aggregate meter plant accuracy very close to 100%. This benefit will be long-standing because solid state meters have no mechanical wear or friction and do not slow down over time. Sometimes dead meters are found during meter replacements. "Dead meters" are not caught by "no consumption" reports because they usually occur on the percentage of meters that are not yet converted to automated metering.

Inspection

A full AMI deployment provides the opportunity to inspect, find, and correct tampering that has been in place for a long time—100% inspection. However, to be effective, AMR installers must be properly trained and incentivized to take the time required to discover, record, and report tampering.

The entire service entrance facility, not only meters, must be inspected. The importance of inspection to the reduction of non-technical losses is shown in the following statement.

"Utilities that take the time to thoroughly inspect the entire service entrance facility, as well as the meter and meter socket themselves, at the time of AMI equipment installation have the opportunity to minimize otherwise lost revenues."[64]

Some methods of energy theft, such as meter bypass, meters turned upside-down, and meters with drilled holes or adjusted dials, are not necessarily seen by meter readers during their monthly meter-reading cycle visits. Since AMI offers total meter replacement, almost all simple energy theft will be uncovered during the installation of the new meters.

Meter Change-outs

As the volume of AMI-related meter change-outs increases, timely synchronization of meter changes with customer account data becomes essential to help a utility avoid large numbers of billing system rejections caused by incorrect meter assignments. MDMS helps to minimize the number of incorrect and estimated bills that result from the change-out process, thus avoiding billing errors that can contribute to non-technical losses during AMI deployment.[65]

Billing Transition Period

When new meters are installed, a number of data elements must be recorded properly to set up the billing systems. Additionally, new data about meter communications are typically required (such as AMI communication module serial numbers). The installation of AMI offers the opportunity to consolidate databases from multiple sources into a fully integrated MDMS.

[64] Interview with Ed Holmes.

[65] This is particularly important with large-scale AMI deployments that can take from three to five years.

MDMS provides benefits to utilities during AMI implementation by helping to identify and track meter installation problems and verify that data received from endpoints is sufficient for customer billing. If installed as part of the AMI meter installation, MDMS can be used to process data for billing. MDMS can be used for validation, estimation, and editing in the billing process during installation. Interval data provided by AMI systems may have gaps and/or errors. The MDMS system can be used to fill in the gaps and correct the errors in the data.

The AMI installation period offers an opportunity to create customer profiles that compare usage patterns before and after AMI installation. The identification of possible theft in the past is an indicator of theft likelihood in the future.

GIS Mapping

AMI requires that meter asset data is maintained timely and accurately. Meter asset data, including meters and communication modules, must track assets from acquisition to inventory to field installation and provide accurate meter-to-customer and meter-to-network connectivity information. This often requires consolidating and enhancing existing meter applications, including those in meter test, inventory, AM/FM/GIS, and customer information systems. These issues must be addressed at the time the AMI system is installed.

Geographic information system (GIS) mapping during AMI installation provides a valuable resource for revenue assurance. AMI installation offers an opportunity to integrate a GIS system with the customer billing system. This is an effective tool for detecting theft at consumer, distribution transformer, and feeder or substation levels. Analysis of patterns of individual consumption over GIS can help in identifying the sources of theft.

Energy Diversion Program

Utilities can take advantage of the replacement of meters to refresh their energy diversion programs, as well as public awareness of the issues and penalties.

Distribution utilities that have some type of revenue protection program in place can update their program and institute more aggressive programs using a combination of the AMI, MDMS, and teams of newly trained field inspectors.

For distribution utilities that do not have an energy diversion program, AMI installation is an opportunity to institute one at low cost.

AMI Planning and Transition

The revenue protection department staff should be included in the AMI project team from the beginning of the planning process. These individuals can offer valuable insight on many pertinent issues, ranging from a customer's behavior to billing (the integration of databases in the MDMS) to collection. Most importantly, they have the experience to help train meter installation teams and monitor the testing and installation of the meters themselves. They are an important part of the transition to AMI. Their participation can contribute greatly to the realization of potential savings from AMI and the reduction of non-technical losses.

The transition itself—replacement of meters, analyzing customer profiles, testing, system development, algorithm development, and customer profiling—probably has the greatest impact on revenue security and the reduction of non-technical losses.

3
CHAPTER 3

AMI Technologies to Detect Non-Technical Losses

AMI offers many technologies for the detection and reduction of non-technical losses. These technologies can be divided into two main categories, hardware and software, as outlined in the following insert.

Hardware – metering technology

- Meter accuracy
- Tamper detection
- Remote testing diagnostics
- Remote connect/disconnect

Software-based applications and tools

- Meter data management systems
- Statistical analysis
- Geographical information systems

These technologies can be used alone or, preferably, in combination with one another for enhanced effectiveness and manageability.

In this chapter, these technologies will be discussed in the context of their relevance to non-technical losses.

Importance of AMI Technologies to Detect and Reduce Non-Technical Losses

The relevance of the technologies for the detection and reduction of non-technical losses is evidenced by the functions and uses that utilities consider most important as part of overall AMI deployment.

As part of the FERC report[66] on demand/response and advanced metering, FERC staff conducted a survey of utilities.[67] Respondents were asked how they used their systems and which functions

[66] Section 1252 (e) (3) of the Energy Policy Act of 2005 (EPAct 2005) requires FERC to prepare a report by appropriate region that assesses electric demand/response resources.

[67] *Assessment of Demand Response and Advanced Metering Staff Report*, Docket AD06-2-000. FERC. August 2006. In preparing this report, Commission staff developed and implemented a first-of-its-kind, comprehensive national survey of electric demand response and advanced metering. The FERC Demand Response and Advanced Metering

are provided by the AMI systems. Specifically, the FERC survey asked organizations that have installed AMI systems[68] to identify which of the following possible AMI features they used:

- Remotely change metering parameters
- Outage management
- Pre-pay metering
- Remote connect/disconnect
- Load forecasting
- Reduce line losses
- Price responsive demand/response
- Enhanced customer service
- Asset management, including transformer sizing
- Premise device/load control interface or capability
- Interface with water or gas meters
- Pricing event notification capability
- Power quality monitoring
- Tamper detection
- Other

The most often reported functions were "enhanced customer service," and "tamper detection." Figure 3-1 shows the results of the FERC Survey.

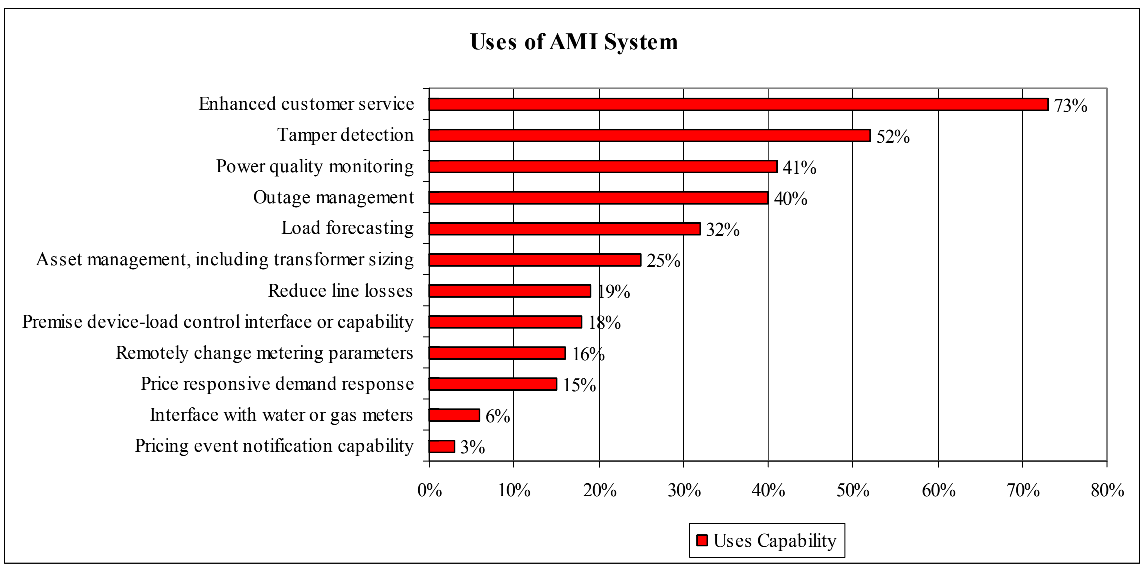

Figure 3-1
Uses of AMI System

Survey (FERC Survey) requested information on a) the number and uses of advanced metering and b) existing demand/response and time-based rate programs, including their current level of resource contribution.

[68] For purposes of this report, Commission staff defined "advanced metering" as follows: "Advanced metering is a metering system that records customer consumption [and possibly other parameters] hourly or more frequently and that provides for daily or more frequent transmittal of measurements over a communication network to a central collection point."

The identification of these uses of advanced metering by utilities points to a number of areas related to the detection and reduction of non-technical losses. Recognition of these functions indicates the importance of non-technical losses to utilities as part of overall AMI programs. At minimum, it shows that AMI must deliver enhanced customer service and tamper detection:

> *Enhanced Customer Service:* The ability to offer ultimate customers the choice of bill data, additional rate options such as real time pricing or critical peak pricing, verification of an outage or restoration of service following an outage, more information to address a customer concern over an electric bill, reduced bill estimates when a meter read is not available, opening or closing of an account due to customer relocation without requiring a site visit to the meter(s), and/or more accurate bills.[69]

> *Tamper Detection:* The ability to detect the possibility that a revenue or billing meter has been tampered with, and to indicate a potential energy theft in progress, to be further investigated by the utility.

Theft at the Meter

There are two types of theft at the meter that contribute to non-technical losses: bypassing the meter and tampering with the meter itself.[70] The various ways in which this theft is done are listed in the following two inserts.

Installation Tampering

Line-side taps
- Weather-head
- Service entrance conductors
- Underground
- Switchgear / buswork / troughs

Bypass
- Jumpers in meter socket
- Close bypass device

Instrument transformer installations
- "Re-wiring"
- Shorting of current transformers

Meter Tampering

Internal to the meter
- Adjustment screws—one time
- Register tampering
- Magnetic circuit alteration
- Electrical alteration
- Dial tampering—Recurring

External to the meter
- Magnets—RC
- Hole in cover / disk "pinning"
- Upside-down meter
- Stolen meter

Internal physical tampering with the meter itself appears to be a less popular method of stealing energy than bypassing the meter or using diversionary taps installed ahead of the meter in the supply wiring.[71]

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[69] AMI—through remote reading—allows for faster, more accurate accounts, reduces discrepancies, and through remote connect/disconnect allows for faster, more timely activation and deactivation of accounts. This translates to more revenue and fewer disputes.

[70] AMR Tamper Detection - The Good, the Bad, and the Possibilities, Ed Malemezian

Installation tampering and meter tampering should be kept in mind while considering the technology features described in this chapter.

Technologies

The uses of AMI technologies to support revenue assurance programs were discussed in the previous chapter. In this chapter, we shall focus on describing the technologies in terms of their characteristics and functionality.

Meter Features

Among the meter features used in AMI systems, those that are important for detecting non-technical losses are listed in the following insert.

[71] *Revenue Metering Loss Assessment*, EPRI, Palo Alto, CA, Arizona Public Service Co., Phoenix, AZ, National Grid USA, Worcester, MA, South Carolina Electric & Gas Co., Columbia, SC and Baltimore Gas & Electric Co., Baltimore, MD: 2001. 1000365.

Meter Standards and Features

Important for Detecting Non-technical Losses

Institute of Electrical and Electronics Engineers (IEEE)/ American National Standards Institute (ANSI) Standards

- IEEE 1701/ANSI C12.18 (1996)
  Protocol Specification for ANSI Type 2 Optical Port
- IEEE 1377/ANSI C12.19 (1997)
  Utility Industry End Device Data Tables
- IEEE 1702/ANSI C12.22 (1999)
  Protocol Specifications for Telephone Modem Communications

High-accuracy internal clock

Communications

- two-way communications
- communications functions that can be installed without disturbing metrology

Measurements

- power quality measurements: outage detection and duration; phase loss, sag, and surge detection
- storage capabilities for multiple sets of readings
- event log with circular memory buffer to store up to 100 events
- measure and display active energy delivered, received or net, or any two registers from delivered, received and net (kWh and kVAH)

Prepayment

- prepay functionality, including varying deductions per time-of-use scheduling, configurable emergency credit, and audible low-credit alarm

Security

- measurement technology that is immune to magnetic tampering
- record of programming changes, power outages, number of demand resets
- reverse disk rotation

Disconnect/connect

- disconnect switch controlled via software
- remote disconnect/reconnect switch

Tamper Detection

- tamper indications that can be communicated regularly through the communications system
- indicators include meter inversion, meter removal, and reverse energy flow
- tamper-resistance features that measure energy even if the meter is inverted and detecting when the meter is removed from a live socket
- increments a counter each time the meter senses reverse power flow
- power removal tamper (increments a counter each time the meter is removed from a live socket)

Hardware: Meter Requirements

Meter requirements will be discussed under four major headings:

1. Meter accuracy
2. Tamper detection
3. Remote testing and diagnostics
4. Remote disconnect / connect

Meter Accuracy

The accuracy of metering data is becoming increasingly important as advanced metering provides data that are integrated across many utility functions. The trend towards solid-state meters capable of delivering information for real-time use has increased both the visibility and importance of meter accuracy to distribution utilities, customers, and regulators. The increasing inaccuracy of legacy electromechanical meters as they age contributes to non-technical losses.

To evaluate the best metering platform for AMI, one utility performed a statistical study of electromechanical meter accuracy.[72] The results were as follows:

1. A thorough statistical analysis of electromechanical meter accuracy found that 20% of electromechanical meters have a high likelihood of under-recording usage by an average of nearly -0.8% (or 99.2% meter accuracy), with significant levels of variability in meter accuracy.
2. Service location (environmental factors), manufacturer meter serial number, and meter age were found to be reliable predictive factors of electromechanical meter accuracy.
3. The “accurate life” is about 25 years for most electromechanical residential meters and about 20 years for most electromechanical demand meters.
4. The volume of in-service meters recommended for replacement was highest for meters purchased from the late-1970s to the mid-1980s. Over 32,000 in-service meters recommended for replacement had an unknown purchase year and an average kWh composite meter error of -1.13%.

Meter Accuracy

Mechanical meters, in addition to being less accurate than solid-state electronic meters when new, fail as they age. Many meters eventually fail completely and register zero-use. Such failures often go undetected for a period of time because they are assumed to be caused by customer vacancy. Eliminating slow meters and other metering issues involving “lost and unaccounted for” energy use will result in accurate bills and assign payment obligations to those customers who use the energy rather than to all other customers.

Meter Reading and Customer Service Field Functions, Safety, Billing and Revenue Protection, Application of San Diego Gas & Electric Company (U-902-E) for Adoption of an Advanced Metering Infrastructure Deployment Scenario and Associated Cost Recovery and Rate Design, SGD&E before the CPUC, March 28, 2006.

[72] *Metering Accuracy, Solid State Metering and the Electric Utility Enterprise Transformation*, Dave Mundorff, Entergy Corporation. September, 2005.

Tamper Detection

Tamper detection features that are important to AMI include the following:

- Reverse energy flag / reverse energy register
- Tilt switch
- Meter inversion
- Blink counter—no power to meter
- Magnetic sensors and diagnostics

These tamper detection features are described in the sections below.

Reverse Energy Flags
Reverse energy flags detect meters that have been turned upside down. In addition to the flag, some meters capture the reverse energy in a separate register. Other meters simply add reverse energy to forward energy, thereby accumulating total consumed. Theft is detected when the total no longer matches the meter dials.

Tilt Switches
Tilt switches detect meters that have been tilted from the normal position, usually around 50° to 70°. Tilt switches are prone to give false indications from vibrations. Meter removal is inferred when the tilt switch closes and a power outage detected after short time delay. Tilt switches, along with the outage detection, provide a reliable indication of meter removal. However, it must be noted that meter removal does not necessarily mean that tampering has taken place.

Meter Inversion
Meter inversion is inferred when meter removal has been detected.[73] In this instance, the tilt switch stays closed and power is restored, providing a reliable indication that the meter is running upside down. This also can generate a reverse energy flag.

Blink Counters
Blink counters measure increments for each interruption detected. A repeated number of interruptions can indicate tampering.

Magnetic Sensors & Diagnostics
Site and meter diagnostic sensors on solid-state meters (solid-state meters only; not meters with communication interface add-ons) detect meter wiring, instrument transformer, voltage, and current balance problems. Meter diagnostic flags detect internal meter malfunctions and tampering.

Reverse energy flags have proved effective in tamper detection. However, AMI generates a very large number of flags that must be sorted out. In many cases, the number of flags is overwhelming. Some of the flags are "false;" for example, magnet sensors generate many false flags.

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[73] When the meter is pulled out of the socket and plugged back in upside down, the meter runs backwards and the kWh register goes down instead of up. The user leaves the meter inverted for a number of days to shave usage off the bill, and the meter is then reinstalled before a meter reading.

To be effective, tamper indicators must be filtered to spot trends and provide reliable comparisons.[74] Blink counts and outage flags must be compared against neighbors. Regular meter work, emergency work, maintenance, and repair work must be backed out of data on meter tilts, removals, and power outages. In other words, a system solution is required for these features to be utilized effectively by revenue protection departments.

Tamper Detection Features

Meters shall be able to:

- detect removal from its socket and generate a tamper event before it loses ability to communicate with the communications network
- detect voltage at the load side when the disconnect switch in the meter is open (for the purpose of detecting meter bypass) and generate a tamper event
- detect physical inversion and generate a tamper event
- detect physical tampering, such as, seal tampering, meter ring removal, case / cover removal, etc. and generate a tamper event
- transmit and locally log the following information (at a minimum) for each tamper event:
    1. Event Timestamp
    2. Tamper status (event type)
    3. Meter ID
- communicate tamper events to the Data Center Aggregator as soon as they occur (when possible)
- send meter tamper events with a higher priority than normal status messages
- store tamper events and transmit them when meter communications are re-established (if the meter is unable to communicate at the time the tamper event is detected)
- distinguish initial installation events and re-energize events (i.e. after an outage) from meter removal and reinstallation (potential tampering) to avoid transmission of non tamper related events.
- store tamper events until they are flagged for deletion once they have been successfully transferred to the Data Center Aggregator and 45 days have passed.

AMI Preliminary System Requirements, SCE. June 2006.

Testing and Diagnostics

Since AMI systems allow the reduction or elimination of meter service personnel and on-site visits, remote diagnostics are used to replace the meter reader's "eyes in the field."

Diagnostic features located in the meter typically provide measurements of parameters such as the following:

- Polarity
- Voltage deviation

[74] AMR Tamper Detection—The Good, the Bad, and the Possibilities, Ed Malemezian

- Inactive phase current
- Phase angle displacement
- Current imbalance
- Reverse energy

Service scan diagnostics read data on these parameters and current conditions at meter locations.

Results are reviewed by engineering staff who initiate an investigation, issue an instruction for meter change-out, or an investigation of the distribution line.

Service scans can discover open voltage test switches, current test switches left shorted, failed wiring on the meter harness from test switch to meter base or incorrect initial wiring, failed voltage transformers, and open distribution line fuses. All of these, including meter failure itself, contribute to non-technical losses.

The requirements for testing and diagnostics for meters and data center aggregators are shown in the following insert.

Testing and Diagnostics

Meter shall be able to:

- support a remotely or locally initiated meter test for communications connection status
- support a remotely or locally initiated meter test for energized status
- support a remotely or locally initiated meter test for load side voltage
- support a remotely or locally initiated meter test for disconnect switch status
- support a remotely or locally initiated meter test for internal clock time accuracy
- return results for all remote or local meter tests within 60 seconds
- Neighborhood Aggregator shall permit remote:
    1. status report (up / down)
    2. diagnostics
    3. link status report
    4. communications event log retrieval

Data Center Aggregator shall be able to:

- provide comprehensive remote testing and diagnostic capabilities for each system component (communications and meters) based on a (periodic) schedule or on demand. Remote testing and diagnostic alarm messages are to be considered high priority.
- remotely test meters for communications status, energized status, load side voltage and switch status on-demand.
- remotely test communications with external third parties.
- identify the probable cause of a communications failure within the AMI communications network.
- provide mechanisms for remotely correcting system/component problems, which at a minimum shall include the ability to remotely recycle (or restart) a component.
- log the results of all remote testing and diagnostics activities and any automatic actions taken based on those results.
- make the results of all received alerts and remote testing and diagnostic results available to authorized IT systems (e.g. MDMS, CSS, Work Order Tracking, etc.).
- have configurable alert levels and notifications based on the severity of a problem detected and the number of endpoints affected.
- classify specific testing/diagnostic results to either require or not require human intervention (configurable) in the determination of issuing trouble reports.
- detect if any network components are not responding within the following intervals based on the number of meters affected. (Estimate only; different network topologies will result in different values.)
    A) < 200 meters - next read.
    B) 200 - 1000 meters - within 6 hours
    C) 1000 - 5000 meters - within 1 hour
    D) 5k - 20k meters - within 15 minutes
    E) 20k - 50k meters - within 1 minute

AMI Preliminary System Requirements, SCE. June 2006.

Remote Disconnect / Connect

With solid-state meters being deployed as part of AMI systems over entire service territories, remote connect/disconnect features are attractive from service, operational, and economic points of view. The key driver for this change is that meter providers can integrate the disconnect/connect switch into the solid-state meter.

Remote connect/disconnect switches have traditionally been installed on electric meters for customers who either were consistently late on paying their electric bill or that lived in an area where people moved more frequently.[75] These classes of customers have a high incidence of non-technical losses with respect to non-payment of bills and errors in billing due to timing of disconnects / connects (stop time for one customer; start time for another).

[75] This is not an insignificant class of customer. For example, customers in SCE's service territory move at a rate of one in every four customers per year. (Paul DeMartini, Director AMI Program)

Remote Connect/Disconnect Features

Meter shall be able to:

- accept scheduled service disconnect/ reconnect
- remotely disconnect/ reconnect on demand
- remotely disconnect/reconnect according to utility pre-configured rules
- detect duplicate service disconnect/ reconnect events and ignore the duplicate events (e.g. Meter is already on -- reconnect event accepted with no action taken)
- cancel or update/reschedule scheduled disconnect/ reconnect events prior to their completion
- send a meter read and acknowledgement to Data Center Aggregator upon a successfully completed or failed electric service disconnect/ reconnect event
- enable an SCE Employee working on-site at the customer premise to be able to physically operate its service disconnect/ reconnect switch at any time. 24 hours, 7 days a week, 365 days a year
- support an external authorization/ authentication routine (i.e. by remote systems or field tool) to enable only active and eligible SCE employees to operate its service disconnect/reconnect switch on-site at the customer premise
- allow authorized SCE employee (while on-site at the customer premise) to operate the service disconnect/reconnect switch immediately (regardless of interval) or to schedule a connect/ disconnect for a future interval
- log date/time and status of attempts to operate the service disconnect/reconnect switch remotely or on-site at the customer premise. Log entries will include requesting user or system identity and authorization status
- remotely disconnected/reconnected on demand and have acknowledgement received by requesting system within 1 minute of request being initiated
- allow a reconnect event to occur following a disconnect event only after a configurable amount of time (e.g. at least 1 to 2 minutes) has elapsed since the disconnect event.
- Note: Should a disconnect event and reconnect event be scheduled to occur for the same meter on the same day, Meter shall log the events and automatically provide an on-demand read to the Data Center Aggregator without operating the disconnect/reconnect switch

AMI Preliminary System Requirements, SCE. June 2006.

Software-based Applications and Tools

To be effective, AMI tamper indicators need to be filtered to spot trends, outliers, and provide for reliable comparisons. Blink counts and outage flags need to be compared against neighbors. Normal meter and trouble work need to be backed out of meter tilts, removals, and power outages. Custom algorithms and a formal process are required to look at trends. Energy consumption needs to be compared—by individuals and by groups.

To be most effective, AMI data needs to be combined with the following:

- Class of customer
- Geographical information
- Normalization for weather, occupancy, and other similar factors
- Customer's past history—family, friends, and other businesses
- Other utility usage—gas, water, cable
- Experience

Software-based applications and tools must be used to analyze the data that are delivered by AMI metering and communications technology to utilities—revenue assurance departments in particular. There are three major categories of software-based applications and tools that are necessary for AMI to effectively detect and reduce non-technical losses and maximize its impact on revenue:

1. Meter data management systems
2. Statistical analysis
3. GIS—at time of installation and for identifying locations for abnormal behavior

Meter Data Management Systems

Advanced metering delivers frequent interval data, which greatly increases the amount of information a utility will have about consumption. The volume, frequency, resolution, and type of data (for example, interval demand data, voltage, outage events, and meter tempering indications) delivered by AMI from meters are vastly different from manual meter reads and mobile (drive-by) meter-reading systems.

MDMS is used to manage the large volumes of meter data generated from AMI systems. MDMS is the software that accepts data collected from an AMR/AMI system, stores the data, and forwards the data to utility systems such as billing. MDMS is an essential tool for utilities that may have tens or even hundreds of thousands or millions of meters generating data that are gathered in multiple ways.

Data Collection and Analysis

While AMI monitors customer power consumption , MDMS uses the data collected for statistical analyses that generate standard reports, such as Hi/Lo reads with statistical process control charts, multi-day bad meter reads, zero usage day with non-zero average, and custom meter groups. These can be used to identify customer load changes that may be related to meter theft.

MDMS is used to develop actionable intelligence for use in revenue protection programs. MDMS receives revenue protection flags from the meters and compares them with usage trends, outage information, and service order/field work to determine which are actual revenue protection issues and which are false positives.

By relying on a central repository of historic meter data, analytics can pinpoint usage patterns that might indicate meter defect, meter tampering, or theft of service. If a customer's energy usage remains abnormally low during heat waves, cold snaps, or before and after outages, then the meter might be malfunctioning. If more energy is flowing past distribution points than is being billed for, then it's possible that someone is stealing service. Without meter data management, this type of revenue-assuring analysis is nearly impossible.

MDMS is used to validate data against theft indicators, automatically initiating appropriate alerts and tracking responses. MDMS is used to set threshold levels for usage on a premise-by-premise basis.

Integration with CIS and Billing Systems

MDMS automates and streamlines the identification of accounts with potential theft, thus reducing the time and expense of unnecessary site visits by revenue investigators. With visibility into the probable condition of each meter in the system, revenue investigators can monitor accounts systemwide without additional investments in time, resources, meter seals, locks, and other security gadgets.

For optimum performance of AMI-supported applications such as tamper or leak detection and processing of on-demand and off-cycle reads, MDMS should be integrated with utility functions carried out in CIS, billing, and other systems such as load control. Customer service personnel, for example, should have access to daily and interval read information provided by AMI to respond to billing inquiries, process service cancellations, and perform other functions. This will require development of new screens for integrating and displaying data and can be time-consuming to develop and test.

Interestingly, MDMS identifies meter failure before the billing cycle, thus avoiding billing errors on both the hardware and software components of AMI, both contributors to non-technical losses.

Integration into AMI and Enterprise

To realize the benefits of revenue protection, including meter tempering and illegitimate consumption, AMI must be capable of providing the data required to detect theft. This means that MDMS should be able to ingest and analyze the AMI data to initiate, track, and close-out follow-up work orders via the utility's work order management system with respect to meter installations, change-outs, communications interfaces, maintenance, and upgrades.

MDMS is an integral and essential part of AMI with respect to developing solutions for non-technical losses.

MDMS and the AMI Technology Evaluations

Conceptually, the meter module hardware, communications infrastructure, AMI head-end system, the MDMS, and the integrations with a utility's existing back-office systems should be thought of as one end-to-end integrated and seamless solution that, only together, can enable the utility to achieve the expected benefits of AMI. Hence, it is beneficial for a utility to assess the capabilities it requires of an MDMS and determine how the AMI data will touch the utility's existing systems, the same time when evaluating AMI technologies and developing an AMI business case.

Meter Data Management System, Tram, Hahn and Ash, Chris, Enspiria Solutions. August 29, 2005.

Statistical Analysis

AMI generates a wealth of data. The shear volume of this data demands that software applications be developed to perform statistical analysis for it to be useful for detecting and correcting non-technical losses. As meters become more sophisticated (solid-state meters flag many meter-tampering techniques automatically in real time), so do thieves. Software applications can be used to strike the balance in favor of revenue assurance.

Some of the more prevalent software applications and techniques for statistical analysis are described in the sections below.

Customer Profiling

Load profiles and data mining techniques can be used to minimize non-technical loss activities. Load-profiling methods and data-mining techniques can be used to classify, detect, and predict non-technical losses in the distribution sector due to faulty metering and billing errors. They provide a framework for the analysis of customer behavior.

Load Profiling

The key to this approach is the recognition of significant deviations known as outliers in the customer behavior patterns. The method of doing so involves modules including the load profiling and non-technical losses analysis in processing large volumes of data relating to customers' electricity consumption patterns. The load profiling module includes clustering customer behavior according to the loading conditions identified and allocating the clustered load profiles to the respective categories based on the customer and commercial indices. The non-technical loss analysis module uses the representative load profiles as a time series model and detects the outliers based on the set up benchmark based on abnormal and normal behavior patterns. The detected abnormalities due to non-technical loss activities are used as a reference to develop a forecast model on non-technical loss profiles with other external features.

Framework Analysis of Customer Behaviour due to Non-Technical Losses in Malaysian Electricity Supply Industry, Anisah Hanim Nizar, ITEE. July 17, 2006.

Interval Metering

Since AMI systems can support frequent readings and high data resolution, interval metering is possible. This allows the utility to study consumption patterns for anomalies that may indicate metering problems.[76]

Some "smart meters" measure consumption in intervals of an hour or less. The resulting increase in data points (from 4 or 12 per year to 8700+) allows utilities to develop highly sophisticated customer profiles. This information can be used to analyze consumption patterns at sites where theft is suspected.

Utilities can develop and compare profiles within the billing system. However, the process would likely slow down bill production. A far more efficient solution lies in the use of an out-of-the-box business intelligence application that extracts data from a billing or meter data management application, then builds and compares profiles in a non-production environment.[77]

A list of significant deviations based on interval data provides targets for investigation. Deviation from a profile norm is a good indicator of theft, sufficient to merit investigation.

Distribution Analysis

Metering cannot detect bypass-tapping supply before it reaches the meter. For most utilities, bypass is the primary theft method. Bypass on underground lines can go undetected for years.[78]

Using data from smart meters, distribution management systems can be used to reach a solution to this problem. A distribution management system can correlate energy meter readings with available feeder load data to identify feeder loss characteristics and a profile. Utilities can use these to create a ranking of the worst performing distribution feeders. This system perspective of feeder loss allows a utility to address load theft where it is greatest. Also, smart-meter-provided power quality data (for example, voltage, current, and power factor) can assist in determining the feeder section losses.

This analysis helps narrow the source of a loss to a relatively small number of sites. Looking at the accounts associated with those sites, along with information on ownership and purported use, points to the likely location of the theft.

Trends and Comparisons

Custom algorithms and a formal process are required to identify trends. Energy consumption needs to be compared by individual customers and by class of customers. Comparisons are made by combining AMI data with the following:

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[76] Load profile analysis using monthly meter readings is impractical for detecting energy theft. *Algorithm for Detecting Energy Diversion,* EPRI. 1991.

[77] New metering & grid applications improve theft detection, Adrian Patrick, PhD, Automatic Meter Reading Systems, Oracle, Utilities Global Business Unit. July 31, 2007.

[78] When the power is used for illegal, high-consumption "growing" and drug-manufacturing purposes, losses can be substantial.

- class of customer
- geographical information
- other utilities—cable, gas, water
- customer history and behavior patterns

Statistical Algorithms

MDMS uses a series of statistical algorithms that, in essence, perform the same initial screening and analysis work usually performed by a team of utility revenue assurance experts, only in a more consistent manner and at a much lower cost.

MDMS identifies revenue leakage by applying these algorithms, along with revenue assurance investigation best practices, across multiple utility internal data sources (CIS, MIS, WFMS) and appended with external data sources (SIC, zip +4, credit score, weather) to create a list of suspect accounts. The suspect list is a prioritized list of premises or accounts with reason codes and a weighted revenue recovery valuation of each opportunity. A suspect list is provided to the utility's revenue protection investigation team on a periodic basis for field investigation and subsequent actions (for example, customer contact, back-billing, mediation, and negotiations).

Geographical Information Systems (GIS)

GIS mapping and integration with customer databases is used to identify and locate consumers on the geographical maps being fed from the distribution network. There may be cases where an electric connection exists, but is not in the utility's record. There may be instances of unauthorized connections or unrecorded connections. On the other hand, there may be instances where a connection is recorded, but does not exist physically at the site.

GIS provides utilities with accurate data and useful information to manage their assets and customer base. GIS coupled with GPS can assist in maintaining data integrity and recovering "lost revenue."

GIS should be used to provide aerial photographs or maps of the area, with spatial references to the physical and electrical distribution network, metering points within buildings, and buildings without meters installed. All network and customer documentation should be linked, and all assets in the area should be mapped. Widespread access to relevant data should be available through a web-enabled client-server.

Installation of AMI at the substation level helps to target areas where technical and, more importantly, non-technical losses are problematic.

Results from analysis using GIS-enabled tools can be used to focus energy audits by revenue protection teams. In the case of major retail and industrial customers, technical specialists can prioritize locations for on-site audits, checking meters and installations, instrument transformers, metering and billing constants and ensuring that no by-passing is taking place.

GIS is an ideal integration platform for meter data, supervisory control and data acquisition (SCADA), and customer information systems, as shown in Figure 3-2.

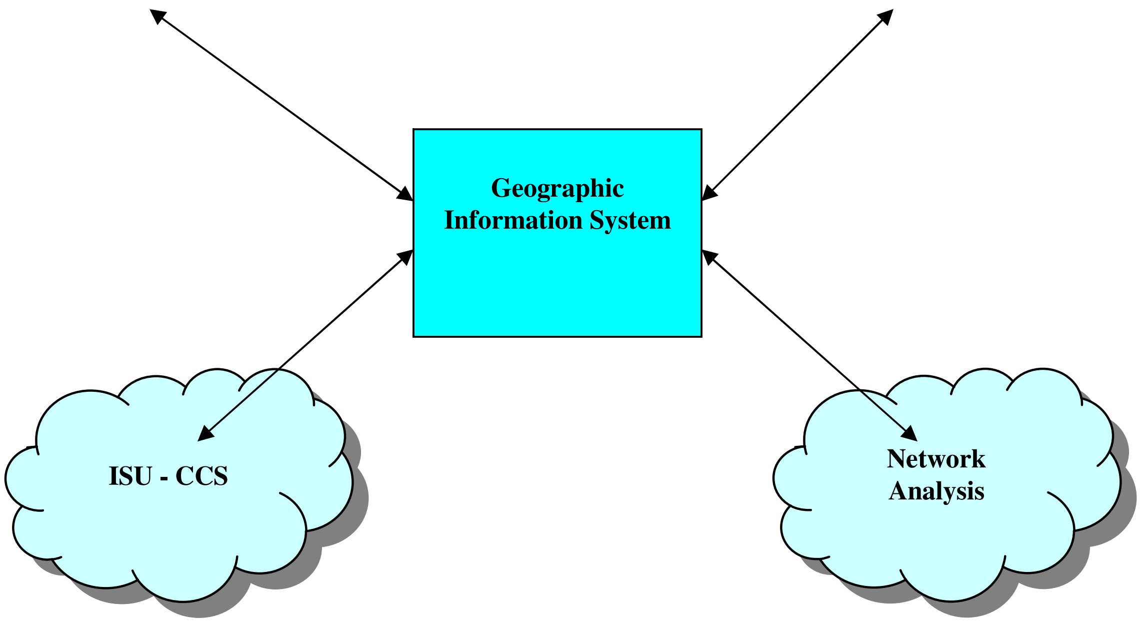

Figure 3-2
Geographic Information System

Tasks for which spatial data can improve processes are meter reading (including rollout of AMI systems), credit and collections, customer analytics, billing, and customer communications. An enterprise GIS fully integrated within the mainstream of utility IT infrastructures helps utilities understand customer behavior and their transactions.[79]

GIS can help visualize significant mismatches between known usage and actual consumption using GIS advanced network modeling.

Many utilities consider the GIS system as the "ultimate" source database, acting as a common repository for all enterprise applications. This is accomplished by integrating GIS technology into the mainstream business operations of the company.

[79] *GIS Enhances Electric Utility Customer Care*, An ESRI ® White Paper. May 2007.

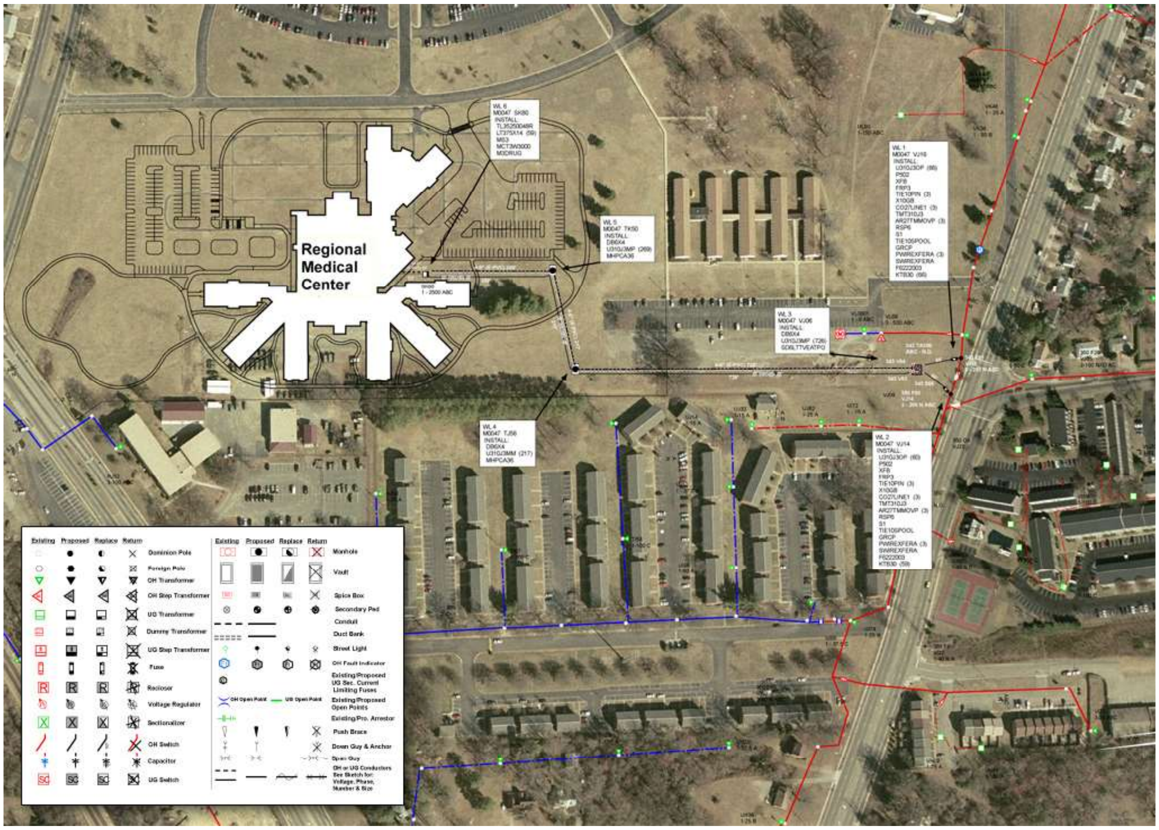

Figure 3-3
GIS Aerial Map

GIS Integration Functional Requirements

The functional requirements for integrating AMI with GIS are as follows: [80]

- Complete automation of the distribution network is not possible. It would require implementation of SCADA/DMS at every section of distribution system, which is prohibitively expensive. Hence, getting real-time data from SCADA/DMS for all parts of distribution network is not possible. This problem can be overcome by the integration of GIS with AMR/AMI.
- Normally, the metering data from AMR/AMI are available to billing personal. However, these data are not available to other employees directly. Once integrated with GIS, every employee can have access to data through multiple GIS applications.
- AMR/AMI data are helpful for detecting losses in the distribution system. Using GIS, losses can be viewed geographically and analyzed. This analysis can be used to map areas where there is a high incidence of theft or other distribution system losses. These maps can be used to develop predictive models (Figure 3-3).
- Energy consumption information can be used to build databases of real-time and historical (periodical) demand and energy data at the source (for example, feeders and

[80] A detailed discussion of this subject can be found in *GIS integration with SCADA, DMS & AMR in Electrical Utility*, Uday D. Kale and Rajesh Lad. Reliance Energy Ltd., Map India. 2006.

DTs) and load (consumers) levels. This information can be used to build network simulations of loading conditions and for load forecasting. These databases can be helpful in developing profiles, behavior models and incidence indicators for theft.

- With the data received from AMR/AMI, GIS tools can be used for energy auditing in a geographic context, which is useful in specifically identifying particular areas suffering high energy losses.
- The correct assessment of technical and non-technical loss components needs correct metering data. This information can be provided over the GIS platform. GIS tools can be used by network analysts to identify and display spatially feeders, transformers, and distribution areas having high-energy losses (Figure 3-4).

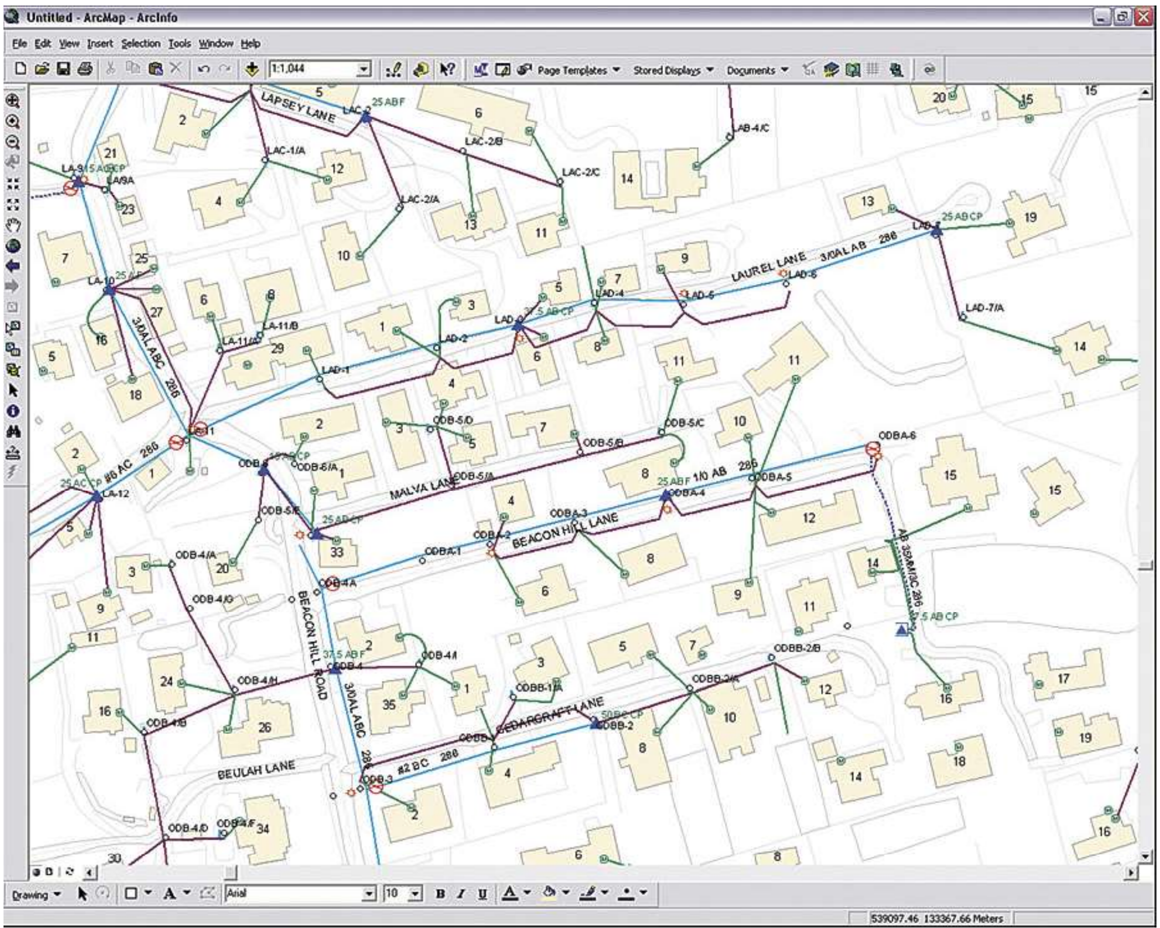

Figure 3-4
GIS High-Energy Loss Map

GIS and Field Inspections

GIS mapping of AMR/AMI data has been used successfully to identify locations for field inspections. These have led to high "hit rates" for the detection of meter tampering. An example of GIS for field inspections is shown in Figure 3-5.[81]

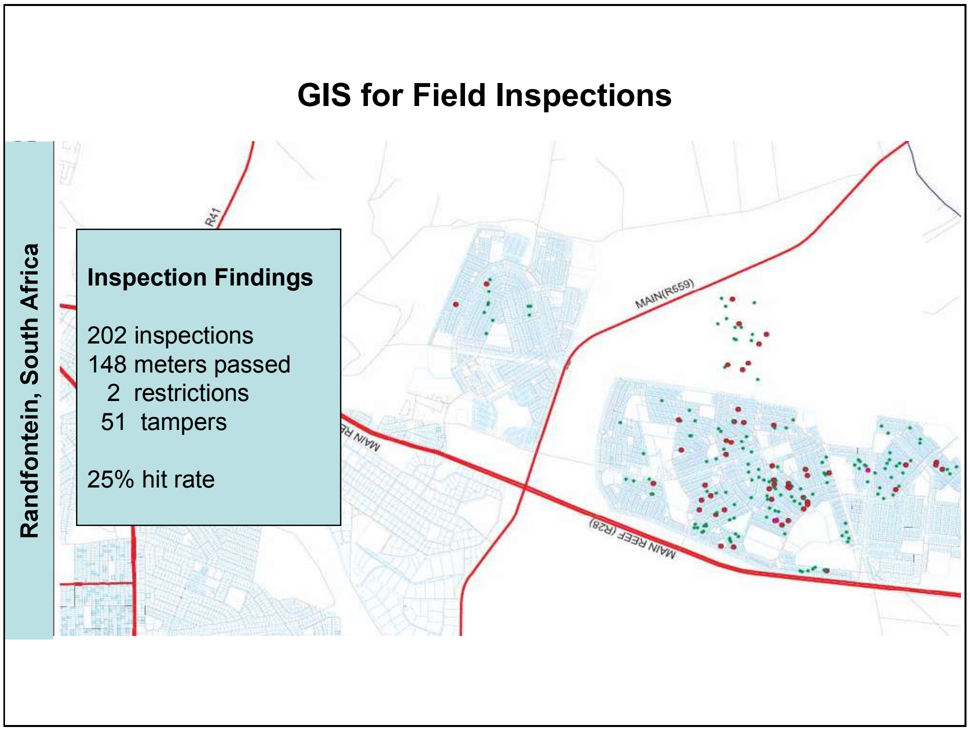

Figure 3-5
GIS for Field Inspections

Analyzing Theft at Substation Level

With integrated GIS, it is possible to access exactly the geographical areas where theft is most prevalent, areas where theft can be preempted by enhanced levels of vigilance, and areas where revenue assurance should step up its efforts and be more accountable for results. Typically, the area served by a substation is only a few square kilometers in size, facilitating the implementation of corrective measures.

GIS can play a major role in identifying areas of the distribution network where theft is likely. Identifying potential theft in the distribution network is accomplished by the integration of billing and SCADA systems on a GIS platform.[82]

[81] *Resource & Revenue Protection as a Tool for DSM*, Christophe Viarnaud, Actaris and Gregor Schmitz, BreakThru Consulting.

[82] *Role of GIS in Preventing Power Pilferage,* Dr. Nagesh Rajopadhyay, Manish Arora and P. Madhusudhan, Info Tech Enterprise Limited, Hyderabad. GIS Based Distribution System Planning, Analysis and Asset Management Training Program, USAID.

SCADA systems continuously collect real-time readings of all electrical parameters at monitored points on feeders.[83] The system obtains information on the status of various switching devices (for example, circuit breakers, switches and isolators) and transformer parameters (for example, tap position).

When electronic meters are installed at the customer level, they can be equipped with an interface for communications with the SCADA system, using an industry standard protocol. Meter readings can then be used both to monitor the load and to detect attempts to tamper with the meter. As soon as a tamper is detected, the meter/consumer can be tagged on the GIS system. The information can then be passed on to revenue assurance for physical checks and corrective action.

PSS/Engines™ must be interfaced with GIS for network analysis and optimization. A data model must be created in GIS for geographic locations as well as for the network.

Steps for the system and database integration and GIS mapping:

- Interface of billing system to GIS (GIS application software reads external relational database management system [RDBMS] of billing system).
- Entry of billing-related information to customer database.
- Identify the total power delivered from the substation (P-total) and the total power billed to the customer (P-billed).
- Calculate network power loss (P-lost) with network analysis tools and map network data in GIS.
- Calculate power theft (P-theft) or commercial loss at the substation level. Formula: (P-theft) = (P-total) - (P-billed) - (P-lost).
- Plot the results on GIS.

A similar analysis can be made at the transformer level, provided that the meter is installed at the transformer and a reading is available.

A link must be maintained between the external billing database and the GIS database. Billing data must be populated simultaneously in the external database and the GIS database. After the entry of meter data at a substation level, the system can be asked to evaluate the total commercial loss.

[83] These parameters include voltage, angle, power factor, active power, reactive power, and energy.

Implementation of AMI Technology

The way in which an AMI installation is planned and executed has a major impact on its success in ensuring that the technologies are installed properly, detecting meter tampering and by-pass at the time of installation and setting up and integrating the data management systems and GIS platform for revenue assurance programs in the future. It must be recognized that installation of hardware and software is as important as the technologies themselves for realizing the benefits that AMI offers for the detection and control of non-technical losses.

Successful implementation of AMI technology requires the participation of experienced revenue assurance staff at all stages of the process—planning, procurement, installation, and integration into the utility enterprise systems. These individuals have valuable insights into the transition from manual to remote meter reading and auditing. They have much on-site experience to share for meter replacement. Moreover, they understand the need for comprehensive data management tools. Most importantly, revenue assurance offers quality control for the realization of the operational savings that provide the economic justification for many AMI programs.

4
CHAPTER 4

Overview PPL Electric Utilities

PPL Electric Utilities is the regulated electricity and gas subsidiary of PPL Corporation. The annual revenues and assets of PPL Corporation are $6.9 billion and $19.7 billion, respectively. PPL Electric Utilities serves over 1.4 million customers over 10,000 square miles in Central Eastern Pennsylvania (Figure 4-1).

PPL Electric Utilities has a peak load of ~7,700 MW with 36.7 billion kWh delivery.

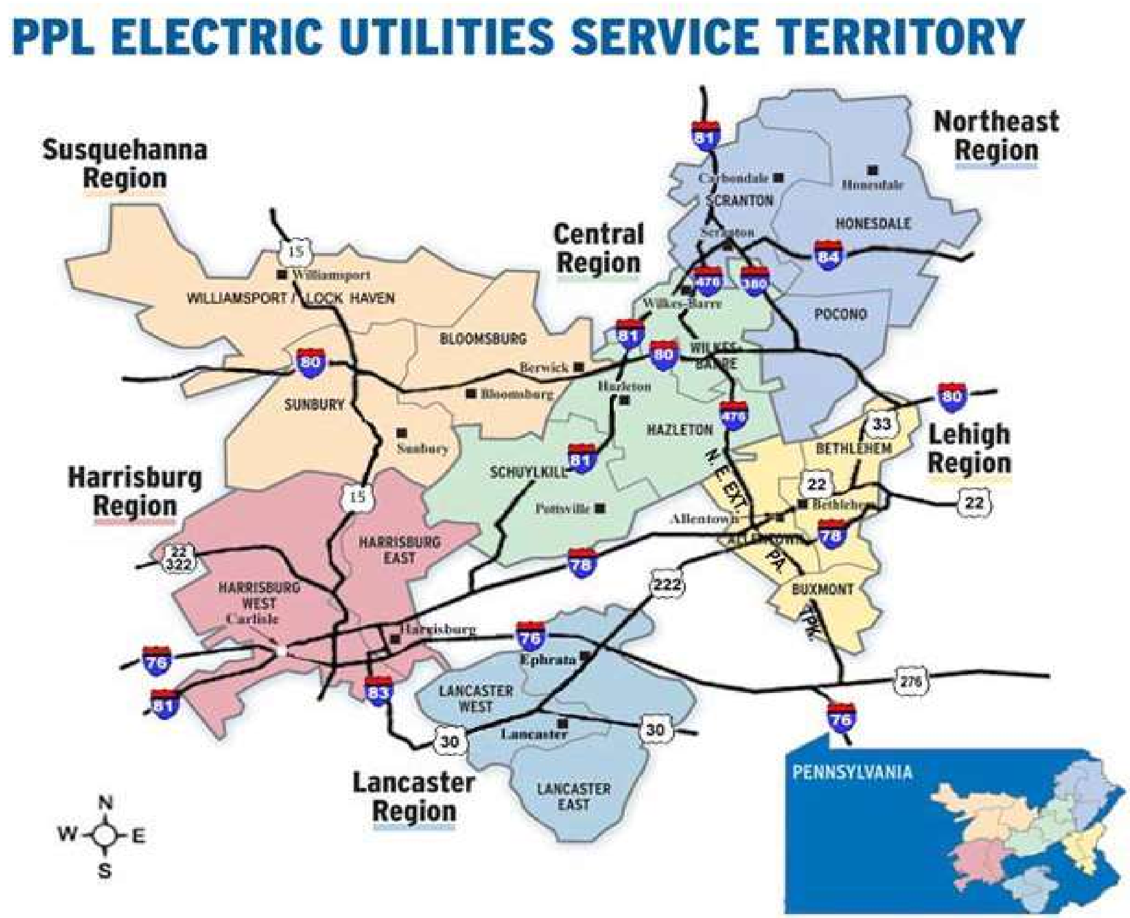

Figure 4-1
PPL Electric Utilities Service Territory

PPL Electric Utilities was one of the first utilities to introduce an automated meter-reading system, starting the program in November 1999 and completing the deployment to its 1.4 million customers in October 2004. Beginning in the spring of 2002 and concluding in the fall of 2004, PPL deployed an automated meter-reading system that included the replacement of over 1.4 million meters, installation of communications equipment in over 330 substations, and modified meter data and billing systems. Total implementation cost was $163 million. The automated meter-reading system replaced 175 manual meter readers and allowed the reduction of personnel for large power installations from 17 to 11.

With manual reads, PPL Electric Utilities experienced 95% accuracy (due to human error and weather, especially snow); accuracy with automated meter reading is now close to 99.8%.

PPL Electric Utilities started change management for business processes six months before installation. Before installation started, 200 business processes were reviewed; 70 risks were identified and addressed and appropriate changes made to ensure the successful transition to the automated meter-reading system. Many of these changes related to billing processes and impacted revenue assurance and, thus, non-technical losses.

The information technology staff was actively involved in the project team, contributing to the smooth transition. During the installation period, manual meter reads were sent to billing using middleware, so downstream processes did not notice the difference between manual and remote meter reads. The computer software programs and interfaces necessary to transfer the automated meter reads to the PPL billing system were developed in-house. Among these were the data validation and revenue assurance tools. Statistical analysis was used very early on. From the beginning of the project, the information technology staff, using its own software, provided effective and productive applications for revenue assurance.

Although the system deployed by PPL Electric Utilities was an automated meter-reading (AMR) system, it was designed as an advanced metering infrastructure (AMI) system upon which expanded capabilities could be deployed. These expanded capabilities include two-way communications and the use of a commercial MDM solution.

The AMI system reads meters three times per day; hourly data collected daily for each customer. The database currently (2008) holds over three terabytes (two years of data). This is the largest database of hourly data in the industry.

PPL Electric Utilities was one of the earliest utilities to deploy and utilize AMR/AMI throughout its entire service territory, establishing it as one of the leaders in the industry. As of 2006 it had the second largest deployment in the United States (1,353,024 meters), after PECO Energy (1,759,913); Wisconsin Energy was third (723,000), Wisconsin Public Service fourth (396,837), and United Illuminating fifth (324,992).

The transition from manual to remote meter reading at PPL Electric Utilities was well managed with an inclusive and highly competent project team, making it a model for the industry. Most importantly, with respect to the subject of this study, the AMR/AMI system at PPL Electric utilities provides new and innovative tools for revenue assurance that have a positive impact on the reduction on non-technical losses.

Revenue Assurance Using Meter Data from AMI with Meter Data Management Software

AMI fundamentally alters the way revenue assurance operations are performed. In the past, the Revenue Assurance group at PPL Electric Utilities used various strategies to identify specific target accounts for investigation. Most of these strategies involved manual analysis of large quantities of data, a labor-intensive exercise. The data available for such queries were generally limited to daily and monthly consumption. The results were based on an *ad hoc* process that takes considerable time, with different screening tests being designed and deployed at different times. AMI, with a robust MDM system, changes this paradigm in several ways.

The collection of higher-frequency data and meter status by AMI—reverse rotation flags, outage count indicators, interval data, and metered usage on previously cut meters—is just the beginning of the assurance solution. MDM software helps utilities analyze AMI data, providing knowledge about customer energy use. In-depth analysis helps pinpoint where and by whom power is being diverted, making it easier to identify cases of theft. For example, such analysis enables the utility to discover when there is energy use on non-paying accounts and when there is no use for specific time periods on an active account.

Data Repository

The core repository of data is collected from multiple sources: AMI meters, weather, customer and billing, SCADA, GIS mapping and real-time pricing, as shown in Figure 4-2. The data are validated and stored in two scenarios, working and approved.

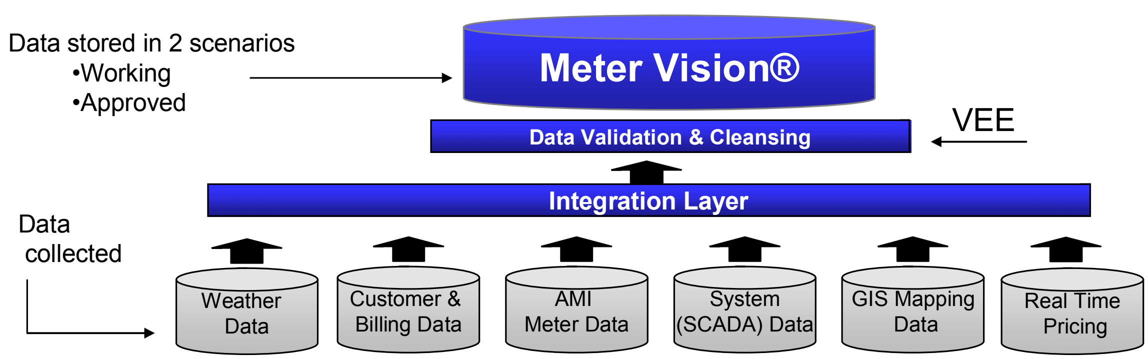

Figure 4-2
Data Repository

Data Repository and Applications

Revenue assurance software allows PPL Electric Utilities to zero in on problem accounts by combining data collected by the AMI system, such as daily readings, interval data, and momentary interruption notifications (blink counts) with other pertinent information such as daily temperatures, meter status, and account status.

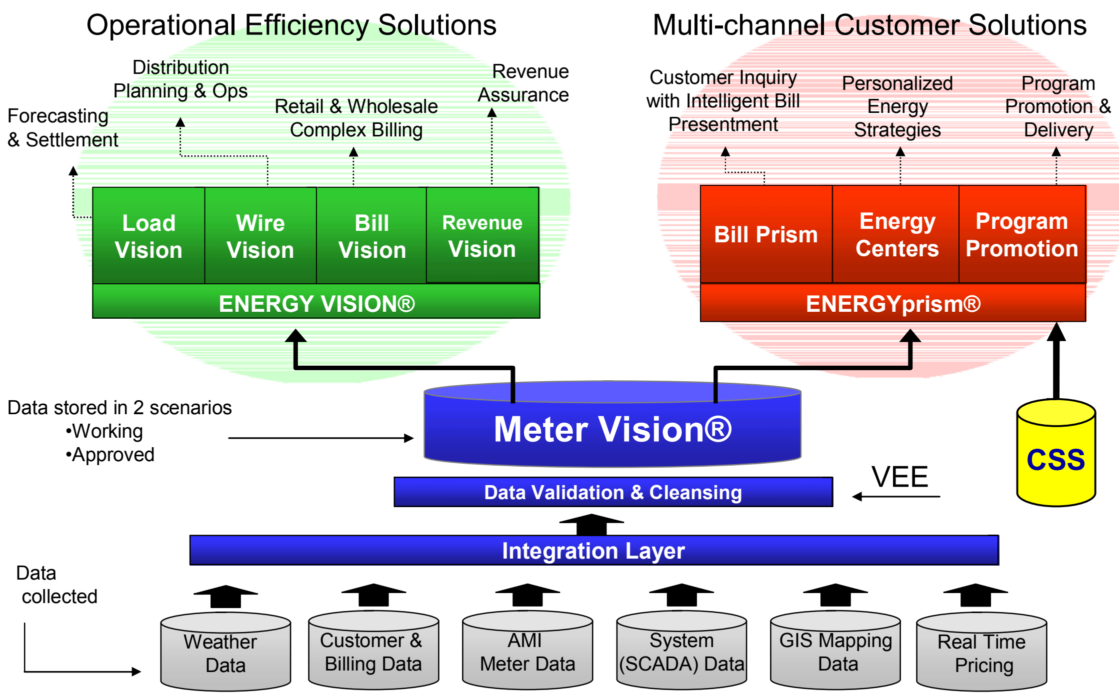

Figure 4-3
Data Repository and Applications

The combination of data and applications for analysis together constitute the Revenue Vision solution at PPL Electric Utilities (Figure 4-3).

Revenue Vision

The Revenue Assurance group at PPL Electric Utilities uses MDM software, called Revenue Vision, to help them simplify the process for identifying possible cases of theft, meter tampering, or equipment problems. This takes a significant amount of guesswork out of the effort to identify possible theft cases. Rather than make assumptions about the cause of a reduction in consumption, the granularity of data available from MDM can provide a pattern that can be used to identify theft or failing equipment with a high degree of confidence so that the site visit to confirm will be fruitful. It also allows users to create rules and logic, manage the list of outputs, tweak logic for better results, and group the results by geographic location to make it easier to assign work to field investigators. An optimum solution would automatically notify group members of anomalies around usage patterns.

PPL Electric Utilities uses a commercial MDM solution to improve analyses of large volumes of interval, daily, and meter data collected by its AMI system. By combining various meter, premise, and account data, the software makes it easier to identify problem meters. PPL Electric Utilities identifies suspicious consumption patterns by applying specific, utility-defined screening tests to a targeted population of accounts, meters, or other entities. The goal is to define tests narrowly enough so that the data combination yields a true and manageably sized "hot list" of accounts requiring investigation.

Revenue Assurance Application

- The revenue assurance application is used today to find meter issues as well as theft.
- The application collects raw data from meters with a specific scenario.
- For example, meters with 3 hours of no use are collected between the hours of 6 pm and 6 am and reports them to a "hot list" for further investigation.
- Additionally, it collects meters that have reverse rotation with blinks and puts them on a "hot list" for additional investigation.

Tests

The Revenue Assurance group began its project by evaluating existing tests already in use for assessing monthly meter readings. During the course of the review, they were able to determine the biggest revenue loss issues, such as equipment malfunctions, installation issues, and potential theft, and to identify usage patterns that were indicative of each problem, as well as the customer class or attribute that should be tested. Upon completion of this exercise, the group came up with eight logic tests to implement within the MDM application and then determined the criteria for each; for example, the meter type or the account type as well as selecting a schedule for running the test (weekly, monthly, or quarterly).

Design and implementation of screening tests within MDM are distinctly separate steps. Analyses are designed to fit customer load and data characteristics to effectively identify energy theft or tampering. Once an analysis is designed, it is implemented as a regular production process, making it possible to keep up with the examination of current data and alert the Revenue Assurance group of anomalies as soon as they arise.

The design step involves exploratory analysis of different test schemes by running, reviewing, and comparing different result sets. Hourly data are utilized for these tests and supplemented by external data sources such as weather data, GIS, and customer characteristic data. In the design phase, these tests are run on all or just a sample of customers, with the primary purpose of evaluating the effectiveness of the tests, rather than simply generating customer lists from the tests.

Tests

- Periodic zero use/with blink—shows meter blinks and zero usage
- Periodic zero use/no blink—same above with no blinks
- Reverse rotation/with blink—shows reverse meter rotation
- Reverse rotation/no blink—same as above with no blink

Note: Typically, abnormal blink counts and reverse rotations counts are due to meter tampering.

PPL continues to refine other tests that will allow them to monitor accounts within two days of an event (for example, termination for non-payment or slowing or stopped meter).

The implementation step is automated. Once logic tests are found to be effective by the analyst, they are put into production by scheduling them as automated runs for whatever period makes sense. All AMI data are initially screened by the validation rules inherent in the MDM system.

After validation, certain accounts are identified for further review. The revenue assurance analyses are run automatically on selected meters. Tests can be nested into a single logic string within a single production run, rather than performed sequentially in multiple runs.

Analysts apply standard tests or test combinations to specific accounts or groups of accounts. Failure of a combination of tests may detect meter tampering. For example, the combination of a loss of power indicator on a meter with a reverse rotation flag is a better indicator of theft than either test alone. No one test determines energy theft or meter tampering, but various combinations of failures may place an account or meter on the suspicious account list.

Workflows

The next step in implementing the logic tests required that a workflow be set up for each of the tests (Table 4-1). The workflows consist of a name, brief description, the group of entities to be included in the test, and the filters necessary to identify the attributes of the entities included. Once the workflows were completed, the group determined how often to run the test.

PPL Electric Utilities generally runs tests weekly, but has the flexibility to change the frequency of test runs. Weekly runs allow better management of output, and there is an added security benefit from a frequent "electronic eye" on every meter in the field.

Table 4-1
Revenue assurance workflows at PPL Electric Utilities

Revenue Assurance Workflows at PPL Electric Utilities	
Workflow	**Description**
800 Series Commercial	Captures commercial meters that have 20% or greater decrease in monthly consumption and/or peak demand in comparison with lowest monthly consumption and peak demand of previous 12 months
800 Series Residential	Captures residential meters that have 20% or greater decrease in monthly consumption in comparison with lowest monthly consumption of previous 12 months
Seasonal Use	Captures seasonal meters that have 20% or greater decrease in seasonal consumption and/or peak demand in comparison with seasonal consumption and peak demand 1 year and 2 years ago
Billing Constant	Captures meters for which billing constant changed from that of previous month
CIM Monthly Commercial	Captures commercial meters that have registered 1000 kWh of consumption since account became inactive
CIM Monthly Residential	Captures residential meters that have registered 1000 kWh of consumption since account became inactive
CIM Weekly Commercial	Captures commercial meters that register average daily consumption of 500 kWh or greater since account became inactive
Load Factor Commercial	Captures commercial meters that have monthly load factor of 1 or greater
Load Factor Residential	Captures residential meters that have monthly load factor of 1 or greater
Periodic Zero Use Commercial	Captures commercial meters that register four or more consecutive hours of true zero use during calendar month (excl. power outages)
Periodic Zero Use Residential	Captures residential meters that register more than 40 occurrences of consecutive 12 hours of zero use during calendar month (excl. power outages)
Reverse Rotation and Blink	Captures meters that register reverse rotation and blinks, indicating meters potentially tampered with
Reverse Rotation and No Blink	Captures meters that register reverse rotation but no blinks, indicating defective meters creeping backwards
Reverse Spike Commercial	Captures commercial meters that have more than 6 occurrences of 90% or greater decrease in daily consumption from previous day during calendar month
Reverse Spike Residential	Captures residential meters that have more than 6 occurrences of 90% or greater decrease in daily consumption from previous day during calendar month
Zero Use Commercial	Captures commercial meters that register zero consumption for calendar month
Zero Use Residential	Captures residential meters that register zero consumption for calendar month
Company Use	Captures meters classified as Company Use so they can be verified as such
Commercial Rate and Residential Revenue Class	Captures meters that have commercial rate class and residential revenue class
Residential Rate and Commercial Revenue Class	Captures meters that have residential rate class and commercial revenue class

Figure 4-4 shows a workflow that is used to find commercial meters that have 20% or greater decrease in the monthly consumption and or peak demand in comparison with the lowest monthly consumption and peak demand of the previous twelve months.

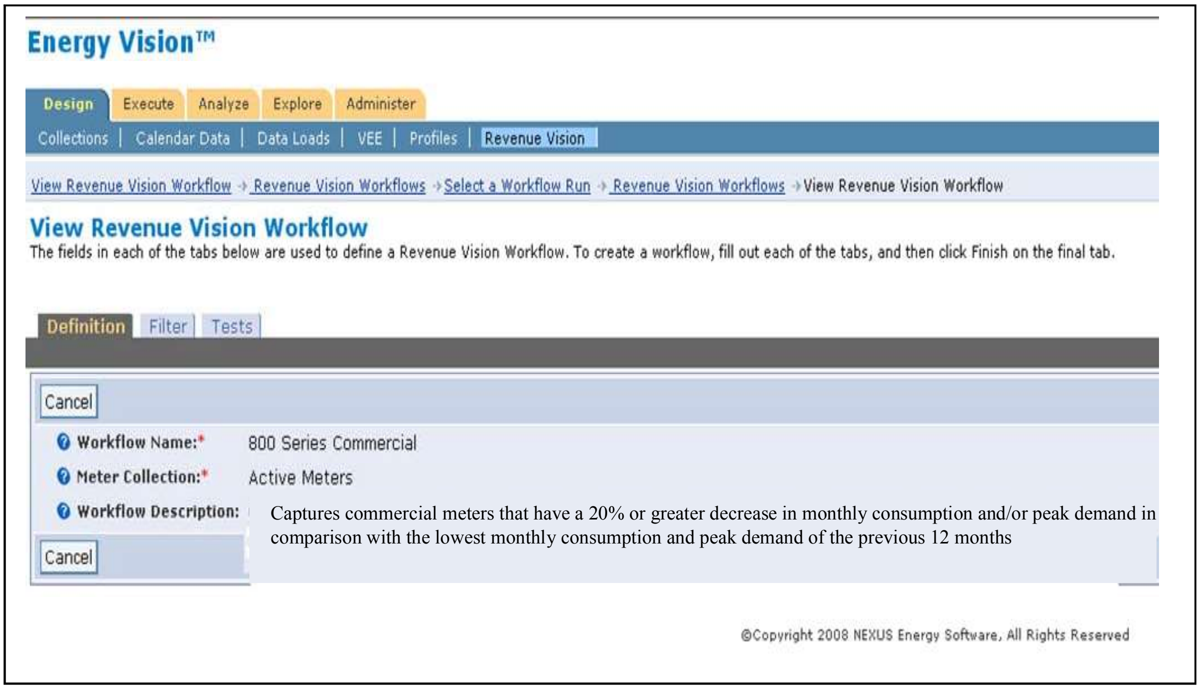

Figure 4-4
800 Series Commercial Workflow (Screen Print)

Filter

Within Revenue Vision (see Figure 4-5 Data Repository and Applications) a filter is applied by selecting the specific attributes, as well as a specific value such as commercial vs. residential—active vs. inactive—and so on.

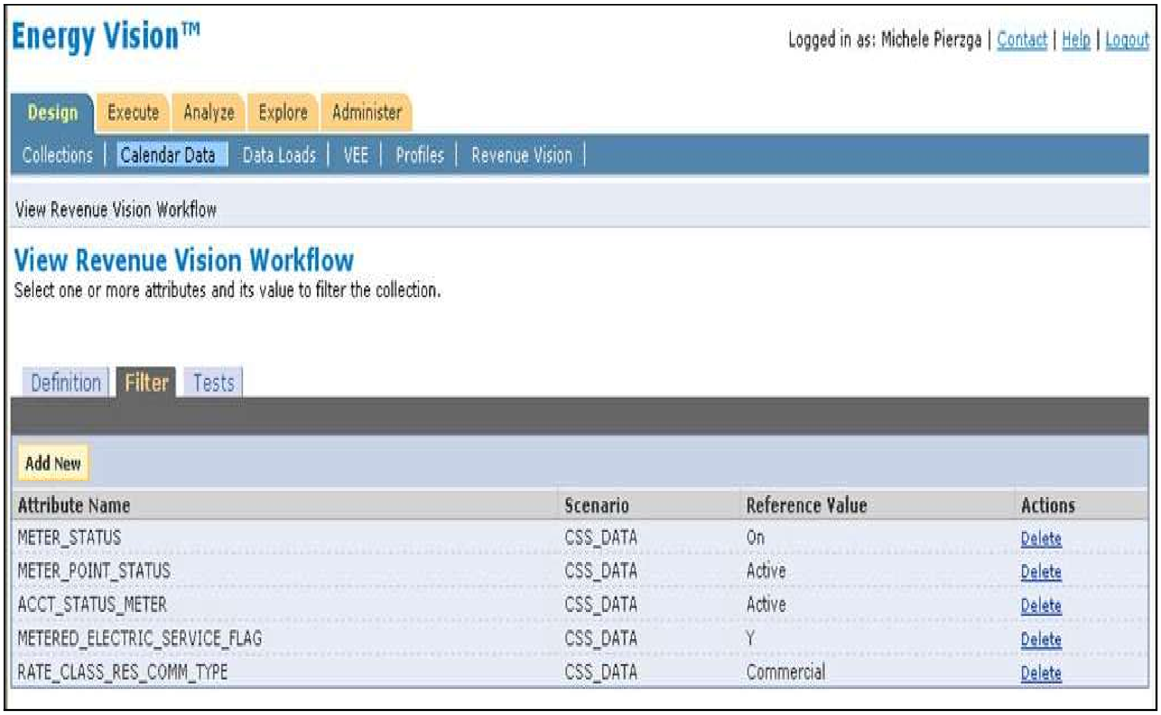

Figure 4-5
Filter (Screen Print)

"Hot List"

The results are displayed on a "hot list" (Figure 4-6) from which a Revenue Assurance specialist can pinpoint candidates for further investigation and corroboration of the AMI indicators.

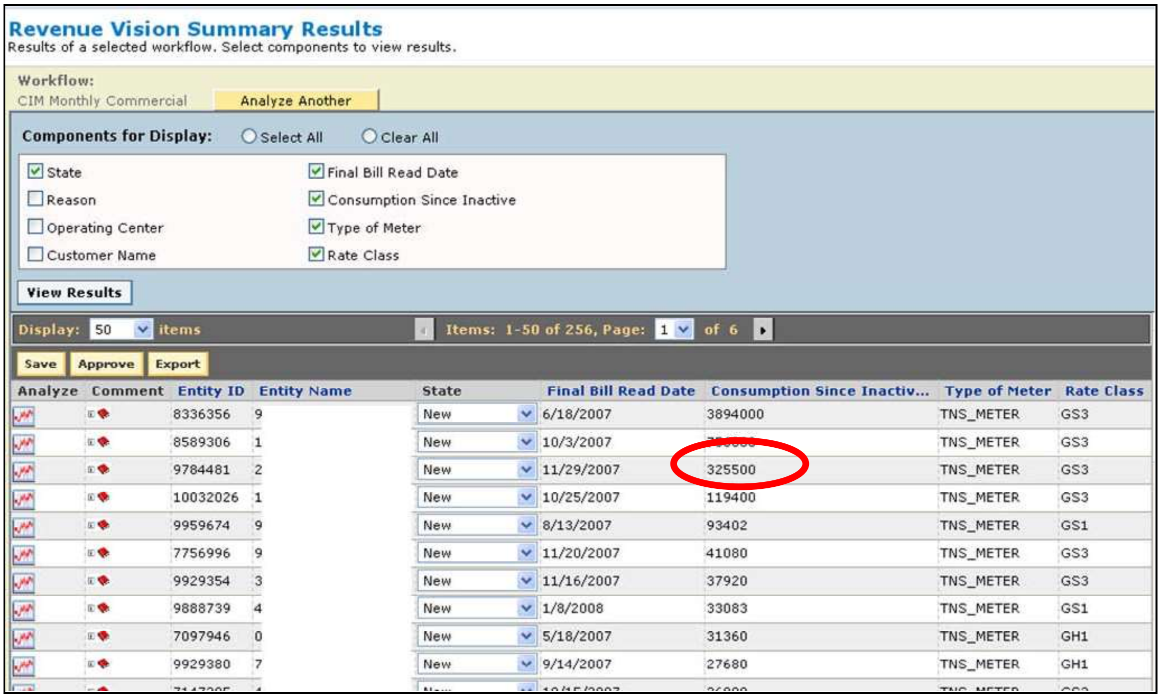

Figure 4-6
Hot list (Screen Print)

The "hot list" is used to prioritize revenue assurance leads for field personnel, thus reducing service order costs and efficiently identifying likely sources of non-technical losses.

Example of Theft Detection Using a Usage Pattern

In one recent case, PPL Electric Utilities was able to identify potential theft by looking at a usage pattern (Figure 4-7).

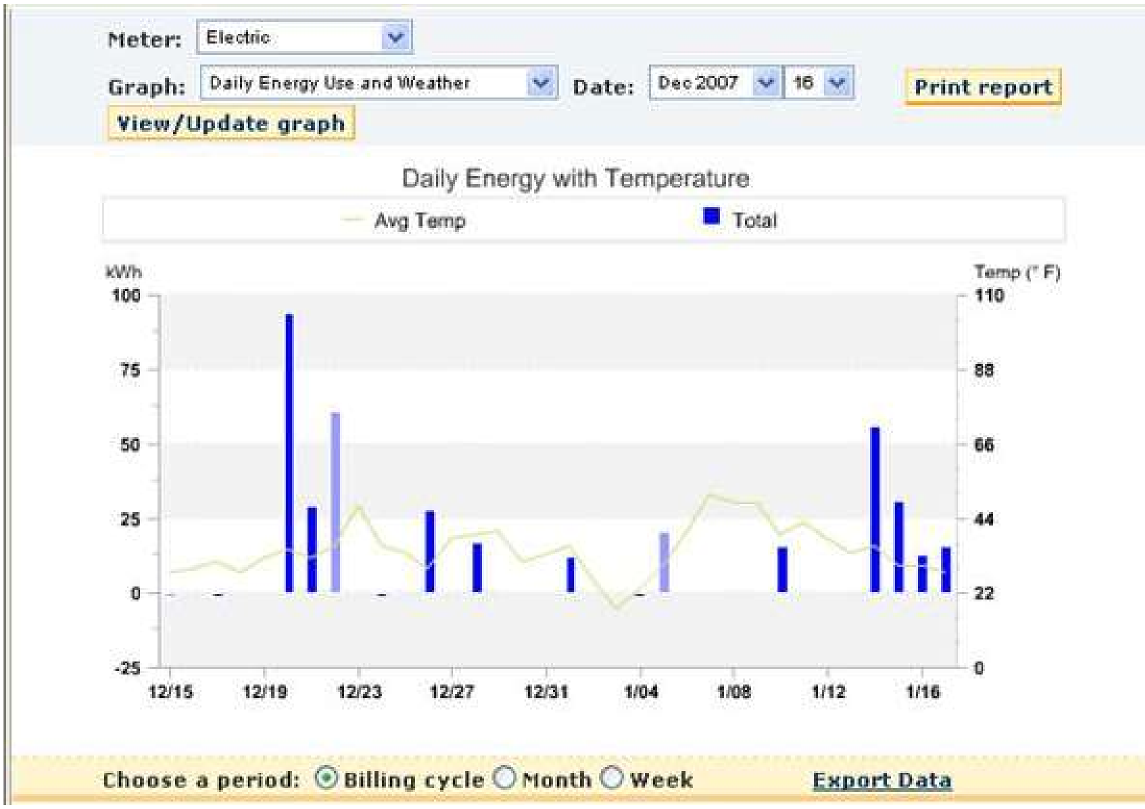

Figure 4-7
Usage pattern indicating abnormal meter behavior

The graph, taken from reports output from the MDM, indicates a suspicious usage pattern, with the meter going into a reverse rotation several times during a single billing cycle. What is more, there are days during the month when the customer is not using any power, while on other days the meter recorded usage. On December 20, 94 kW of usage was recorded, for example, while on January 3, when the temperature was -8°C, no usage was recorded. An investigation of the premises based on analysis of the AMI data indicated that the customer had tampered with the meter. Wires were attached to the meter's potential clip (Figure 4-8).

Figure 4-8
Meter recorded in Figure 7 with wires attached to its potential clip

The bypass was controlled by a simple toggle switch (Figure 4-9).

Figure 4-9
Toggle switch controlling the meter bypass

In this case, PPL Electric Utilities was able to use the interval data to extrapolate usage for rebilling purposes from the periods that were recorded.

Further, PPL Electric Utilities can use the detailed data for responding to questions raised by the judicial system.

Results

PPL Electric Utilities has had positive results from implementation of MDM-based revenue assurance software. The results for April and May 2008 are shown in the insert below.

RESULTS
April and May 2008

- Forty (40) cases were identified for a field investigation where 100% resulted in action being taken.
- Eighteen (18) of the cases were a result of equipment issues.
- In twenty (20) of the cases, theft was detected.
- Two of the cases revealed customer-owned generation via windmill and solar panel; these cases were identified through anomalies in blink counts and reverse rotation on the meters.

Reduction of Non-Technical Losses Using Meter Data Management

As defined in Chapter One, non-technical loss comprises distribution system losses caused by factors at the point of delivery and measurement. These losses are associated with unidentified and uncollected revenue, arising from pilferage, tampering with meters, defective meters, and errors in meter reading and in estimating un-metered supply of energy. System miscalculation on the part of utilities, due to accounting errors, poor record keeping, or other information errors also contribute to non-technical losses. In this example, the focus has been primarily on issues related to theft. However, in the future, PPL Electric Utilities expects to further maximize the benefits that can be derived from its meter data, such as using the features of its MDM system in customer service to respond more quickly and accurately to high-bill inquiries.

AMI at PPL Electric Utilities is an evolving enterprise. The ongoing initiatives of the AMI operations team will lead to further reductions in non-technical losses, as well as further benefits in terms of operational efficiencies and customer service.

Sources

AMI and MDM Program—PPL Electric Utilities, Mike Godorov, Manager; AMI Operations, Kimberly Golden, Supervisor—Information Solutions; and Wayne Fairchild, Special Project Manager, AMI, interviews and presentation. September 18, 2008.

PPL Electric Utilities Reduces Revenue Losses with AMI, Bernie Molchany, Manager—Revenue Assurance, PPL Electric Utilities; Michele Pierzga, Lead Business Systems Analyst, PPL Services Corporation; and Jackie Lemmerhirt, Director of Product Management, MDM, Aclara, Metering International. Issue 3 2008.

Using Meter Data from AMI with Meter Data Management Software to Identify Theft and Equipment Issues, Michele A. Pierzga, Lead Business Systems Analyst, PPL Services Corporation, Autovation 2008, Atlanta, GA. September 7, 2008.

A
APPENDIX

Product Differentiators

- Each product has its own distinct functional strengths and weakness.
- Each product has its own unique architecture differentiators, such as the ability to perform and scale as needed.
- Each product is implemented with differing technologies that the utility IT department has to support and integrate with other applications in the enterprise.
- Some products have service-based architectures at the enterprise level; others do not.
- Some products have well-defined interfaces and points of interoperability; others do not.
- Some products meet industry and international standards; others do not.
- Some products adhere to Smart Grid principles;[84] others do not.
- In addition, each vendor is unique in its level of product development maturity and implementation experience and expertise.

Utilities are encouraged to find the solutions that best fit their needs—in the present and foreseeable future.

[84] As envisioned by Smart Grid researchers such as EPRI, the California Energy Commission's Public Interest Energy Research program, the Modern Grid Initiative, and DOE's GridWise program.

Vendor List

Aclara Software

- Energy Vision®
- http://www.aclaratech.com/software/

Advanced AMR Technologies, LLC

- 8800 Energy Information and Control System
- http://www.advancedamr.com/

American Innovations Ltd.

- AIMetering System®
- http://www.aimonitoring.com

BPL Global

- Power SG™ Theft Detection
- http://www.bplglobal.net/

Detectent, Inc.

- Revenue Enhancement Suite
- http://www.detectent.com/

E-Mon LLC

- E-Mon Energy™
- http://www.emon.com

Echelon Corporation

- Networked Energy Services
- http://www.echelon.com

Ecologic Analytics, LLC

- WACS Meter Data Management System
- http://www.ecologicanalytics.com/

EKA Systems, Inc

- Energy Insight
- http://www.ekasystems.com

Elster Electricity, LLC

- EnergyAxis® System
- http://www.elsterelectricity.com

eMeter Corporation

- eMeter's Consulting and Implementation Services
- http://www.emeter.com/

EnergyICT Inc.

- COMServerJ
- http://www.energyict.com

Enerwise Global Technologies, Inc

- Metering & Integration
- http://www.enerwise.com

Envision Utility Software Corporation
- foCIS™
- http://www.envworld.com

IBM Corporation
- Asset Monitoring and Advanced Metering
- http://www.ibm.com/us/

InStep Software, LLC
- Enterprise Energy Management Software
- http://www.instepsoftware.com

Itron
- Enterprise Edition Customer Care
- http://www.itron.com

MeterSmart
- Meter Data Management
- http://www.metersmart.com

Metretek Inc.
- DC2000
- http://www.metretekfl.com/

MU Net, Inc.
- WebGate® System
- http://www.munet.com

Neptune Technology Group Inc.
- FIELDNET®
- http://www.neptunetg.com

Oracle
- Oracle Utilities Meter Data Management
- http://www.oracle.com/industries/utilities

OZZ Corporation
- Meter Data Management Solutions
- http://www.ozzcorp.com

Powel, Inc.
- Meter Data Management
- http://www.powel.com/

Power Measurement
- EEM Systems
- http://www.pwrm.com/

SAP America, Inc.
- SAP Enterprise Data Management
- http://www.sap.com/usa/industries/utilities/index.epx

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LG&E AND KU SERVICES COMPANY

KU Power System
2010 Analysis of System Losses

August 2012

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August 16, 2012

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

RE: 2010 LOSS ANALYSIS – KU

Dear Mr. Conroy:

Transmitted herewith are the results of the 2010 Analysis of System Losses for LG&E and KU Services Company's Kentucky Utilities (KU) power system. Our analysis develops cumulative expansion factors (loss factors) for both demand (peak/kW) and energy (average/kWh) losses by discrete voltage levels applicable to metered sales data. Our analysis considers only technical losses in arriving at our final recommendations. Please note that the proposed loss factors include a common or system-wide transmission factor for both KU and LG&E studies.

On behalf of MAC, we appreciate the opportunity to assist you in performing the loss analysis contained herein. The level of detailed load research and sales data by voltage level, coupled with a summary of power flow data and power system model, forms the foundation for determining reasonable and representative power losses on the KU system. Our review of these data and calculated loss results support the proposed loss factors as presented herein for your use in various cost of service, rate studies, and demand analyses.

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

Sincerely,

Paul M. Normand
Principal

Enclosure
PMN/rjp

LG&E AND KU SERVICES COMPANY
2010 Analysis of System Losses – KU Power System

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Appendix B – Results of KU 2010 Loss Analysis

Appendix C – Discussion of Hoebel Coefficient

LG&E AND KU SERVICES COMPANY
2010 Analysis of System Losses – KU Power System

1.0 EXECUTIVE SUMMARY

This report presents KU 2010 Analysis of System Losses for the power systems as performed by Management Applications Consulting, Inc. (MAC). The study developed separate demand (kW) and energy (kWh) loss factors for each voltage level of service in the power system for KU. The cumulative loss factor results by voltage level, as presented herein, can be used to adjust metered kW and kWh sales data for losses in performing cost of service studies, determining voltage discounts, and other analyses which may require a loss adjustment.

The procedures used in the overall loss study were similar to prior studies and emphasized the use of "in house" resources where possible. To this end, extensive use was made of the Company's peak hour power flow data and transformer plant investments in the model. In addition, measured and estimated load data provided a means of calculating reasonable estimates of losses by using a "top-down" and "bottom-up" procedure. In the "top-down" approach, losses from the high voltage system, through and including distribution substations, were calculated along with power flow data, conductor and transformer loss estimates, and metered poles.

At this point in the analysis, system loads and losses at the input into the distribution substation system are known with reasonable accuracy. However, it is the remaining loads and losses on the distribution substations, primary system, secondary circuits, and services which are generally difficult to estimate. Estimated and actual Company load data provided the starting point for performing a “bottom-up” approach for calculating the remaining distribution losses. Basically, this “bottom-up” approach develops line loadings by first determining loads and losses at each level beginning at a customer’s meter service entrance and then going through secondary lines, line transformers, primary lines, and finally distribution substation. These distribution system loads and associated losses are then compared to the initial calculated input into Distribution Substation loadings for reasonableness prior to finalizing the loss factors. An overview of the loss study is shown on Figure 1 on page 4.

Appendix A of this report presents the Transmission loss analysis which was calculated separately and the results incorporated into the final loss factors as shown on Table 1 on the next page.

Table 1 (columns (a) and (b)) also provides the final results from Appendix B for the 2010 calendar year. Exhibits 8 and 9 of Appendix B present a more detailed analysis of the final calculated summary results of losses by segments and delivery voltage of the power system. The following Table 1 cumulative loss expansion factors are applicable only to metered sales at the point of receipt for adjustment to the power system’s input level.

LG&E AND KU SERVICES COMPANY
2010 Analysis of System Losses – KU Power System

TABLE 1
Loss Factors at Sales (Meter) Level, Calendar Year 2010

Voltage Level of Service	Total KU (a)	Delivery System (Excludes Transmission) (b)	Recalculated Total KU With Appendix A Transmission Losses (c)	(d) = 1/(c)
Demand (kW)				
Transmission[1]	1.03295	1.00000	1.02805	0.97272
Primary Substation	1.03883	1.00569	1.03390	0.96721
Primary	1.06632	1.03230	1.06126	0.94228
Secondary	1.09017	1.05539	1.08499	0.92167
Energy (kWh)				
Transmission[1]	1.02827	1.00000	1.02271	0.97779
Primary Substation	1.03382	1.00540	1.02823	0.97255
Primary	1.05011	1.02124	1.04444	0.95745
Secondary	1.07651	1.04692	1.07069	0.93398

Losses – Net System Input[2]	5.75% MWh
	7.12% MW
Losses – Net System Output[3]	6.10% MWh
	7.67% MW

Notes: *Column (a)* *Results derived from Appendix A for Transmission and Appendix B for all remaining factors.*

Column (b) *Column (a) loss factors excluding all Transmission-related losses.*

Column (c) *Column (b) delivery-only loss factors with incorporating the composite LGEE system-wide Transmission loss factors from Appendix A, Schedule 1, lines 5 and 10.*

Column (d) *All loss factors presented in columns (a), (b), and (c) are expansion factors applicable to metered sales as a multiplier. Column (d) is simply the inverse of column (c) and results in a loss factor that is used to divide metered sales to derive sales requirement at input.*

The loss factors presented in the Delivery Only column of Table 1 are the Total KU loss factors divided by the transmission loss factor from column (a) in order to remove these losses from each service level loss factor. For example, the secondary distribution demand loss factor of 1.05539 includes the recovery of all remaining non-transmission losses from the distribution substation, primary lines, line transformers, secondary conductors and services.

[1] Reflects results for 500 kV, 345 kV, 161 kV, 138 kV and 69 kV from Appendix A.
[2] Net system input equals firm sales plus losses, Company use less non-requirement sales and related losses. See Appendix A, Exhibit 1, for their calculations.
[3] Net system output uses losses divided by output or sales data as a reference.

The net system input shown in Table 1 represents the MWh losses of 5.75% for the total KU load using calculated losses divided by the associated input energy to the system. The 7.12% represents the MW losses also using system input as a reference. The net system output reference shown in Table 1 represents MWh losses of 6.10% and MW losses of 7.17%. These results use the appropriate total losses for each but are divided by system output or sales. These calculations are all based on the data and results shown on Exhibits 1, 7 and 9 of the study.

Due to the very nature of losses being primarily a function of equipment loadings, the loss factor derivations for any voltage level must consider both the load at that level plus the loads from lower voltages and their associated losses. As a result, cumulative losses on losses equates to additional load at higher levels along with future changes (+ or –) in loads throughout the power system. It is therefore important to recognize that losses are multiplicative in nature (future) and not additive (test year only) for all future years to ensure total recovery based on prospective fixed loss factors for each service voltage.

The derivation of the cumulative loss factors (Appendix B) shown in Table 1 (columns (a) and (b)) have been detailed for all electrical facilities in Exhibit 9, page 1 for demand and page 2 for energy. Beginning on line 1 of page 1 (demand) under the secondary column, metered sales are adjusted for service losses on lines 3 and 4. This new total load (with losses) becomes the load amount for the next higher facilities of secondary conductors and their loss calculations. This process is repeated for all the installed facilities until the secondary sales are at the input level (line 45). The final loss factor for all delivery voltages using this same process is shown on line 46 and Table 1 for demand. This procedure is repeated in Exhibit 9, page 2, for the energy loss factors.

The loss factor calculation is simply the input required (line 45) divided by the metered sales (line 2).

An overview of the loss study is shown on Figure 1 on the next page. Figure 2 simply illustrates the major components that must be considered in a loss analysis.

LG&E AND KU SERVICES COMPANY
2010 Analysis of System Losses – KU Power System

Figure 1

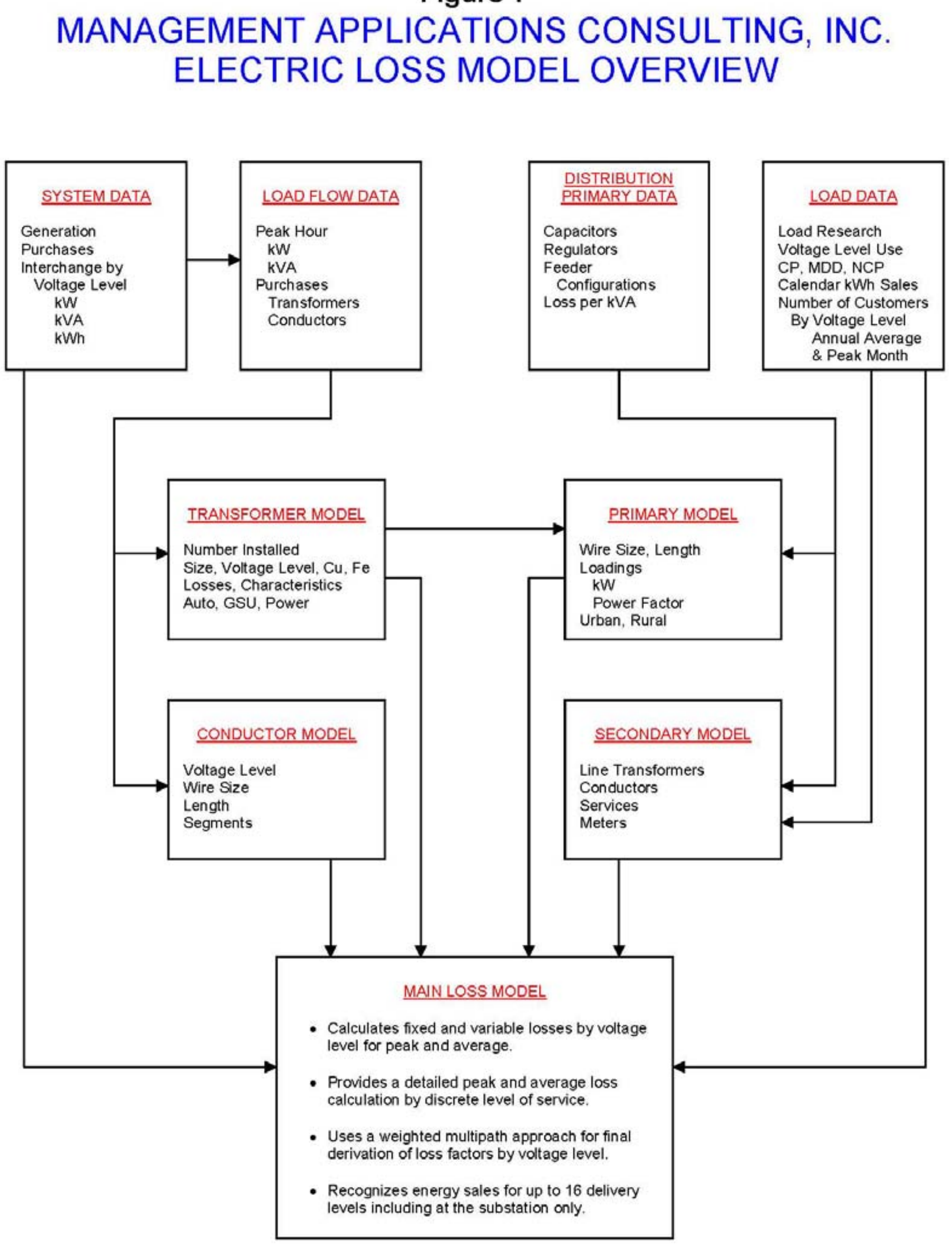

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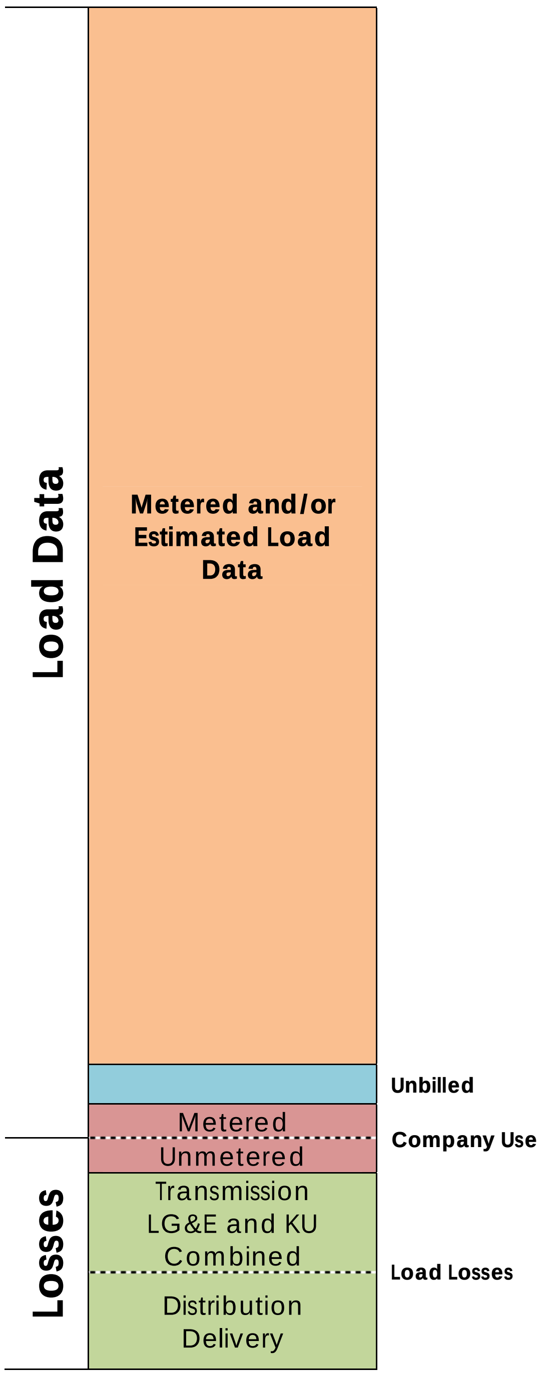
Figure 2
LG&E and KU Services Company – KU Jurisdiction Energy and Loss Components



2.0 INTRODUCTION

This report of the 2010 Analysis of System Losses for the KU power system provides a summary of results, conceptual background or methodology, description of the analyses, and input information related to the study.

2.1 Conduct of Study

Typically, between five to ten percent of the total kWh requirements of an electric utility is lost or unaccounted for in the delivery of power to customers. Investments must be made in facilities which support the total load which includes losses or unaccounted for load. Revenue requirements associated with load losses are an important concern to utilities and regulators in that customers must equitably share in all of these cost responsibilities. Loss expansion factors are the mechanism by which customers' metered demand and energy data are mathematically adjusted to the generation or input level (point of reference) when performing cost and revenue calculations.

An acceptable accounting of losses can be determined for any given time period using available engineering, system, and customer data along with empirical relationships. This loss analysis for the delivery of demand and energy utilizes such an approach. A microcomputer loss model[4] is utilized as the vehicle to organize the available data, develop the relationships, calculate the losses, and provide an efficient and timely avenue for future updates and sensitivity analyses. Our procedures and calculations are similar with prior loss studies, and they rely on numerous databases that include customer statistics and power system investments.

Company personnel performed most of the data gathering and data processing efforts and checked for reasonableness. MAC provided assistance as necessary to construct databases, transfer files, perform calculations, and check the reasonableness of results. A review of the preliminary results provided for additions to the database and modifications to certain initial assumptions based on available data. Efforts in determining the data required to perform the loss analysis centered on information which was available from existing studies or reports within the Company. From an overall perspective, our efforts concentrated on five major areas:

1. System information concerning peak demand and annual energy requirements by voltage level,
2. High voltage power system power flow data and associated loss calculations,
3. Distribution system primary and secondary loss calculations,
4. Derivation of fixed and variable losses by voltage level, and
5. Development of final cumulative expansion factors at each voltage for peak demand (kW) and annual energy (kWh) requirements at the point of delivery (meter).

[4]Copyright by Management Applications Consulting, Inc.

2.2 Electric Power Losses

Losses in power systems consist of primarily technical losses with a much smaller level of non-technical losses.

Technical Losses

Electrical losses result from the transmission of energy over various electrical equipment. The largest component of these losses is power dissipation as a result of varying loading conditions and are oftentimes called load losses which are proportional to the square of the current (I^2R). These losses can be as high as 75% of all technical losses. The remaining losses are called no-load and represent essentially fixed (constant) energy losses throughout the year. These no-load losses represent energy required by a power system to energize various electrical equipment regardless of their loading levels. The major portion of no-load losses consists of core or magnetizing energy related to installed transformers throughout the power system.

Non-Technical Losses

These are unaccounted for energy losses that are related to energy theft, metering, non-payment by customers, and accounting errors. Losses related to these areas are generally very small and can be extremely difficult and subjective to quantify. Our efforts generally do not develop any meaningful level as appropriate because we assume that improving technology and utility practices have minimized these amounts.

2.3 Description of Model

The loss model is a customized applications model, constructed using the Excel software program. Documentation consists primarily of the model equations at each cell location. A significant advantage of such a model is that the actual formulas and their corresponding computed values at each cell of the model are immediately available to the analyst.

A brief description of the three (3) major categories of effort for the preparation of each loss model is as follows:

- Main sheet which contains calculations for all primary and secondary losses, summaries of all conductor and transformer calculations from other sheets discussed below, output reports and supporting results.

LG&E AND KU SERVICES COMPANY
2010 Analysis of System Losses – KU Power System

- Transformer sheet which contains data input and loss calculations for each distribution substation. Separate iron and copper losses are calculated for each transformer by identified type.

Appendix A presents a separate hourly loss study result which derived the loss factors for the combined LGEE system-wide Transmission only (69 kV through 500 kV) of the LG&E and KU power system. These Transmission results are then incorporated on Table 1 of the Executive Summary to derive the final KU 2010 loss factors by voltage level of energy delivery.

Appendix B presents a detailed loss study result which derives the loss factors for the Company's system-wide power system. Appendix B, Exhibits 8 and 9, presents the final detailed summary results of the demand and energy losses for each major portion of the total KU power system.

3.0 METHODOLOGY

3.1 Background

The objective of a Loss Study is to provide a reasonable set of energy (average) and demand (peak) loss expansion factors which account for system losses associated with the transmission and delivery of power to each voltage level over a designated period of time. The focus of this study is to identify the difference between total energy inputs and the associated sales with the difference being equitably allocated to all delivery levels. Several key elements are important in establishing the methodology for calculating and reporting the Company's losses. These elements are:

- Selection of voltage level of services,
- Recognition of losses associated with conductors, transformations, and other electrical equipment/components within voltage levels,
- Identification of customers and loads at various voltage levels of service,
- Review of generation or net power supply input at each level for the test period studied, and
- Analysis of kW and kWh sales by voltage levels within the test period.

The three major areas of data gathering and calculations in the loss analysis were as follows:

1. System Information (monthly and annual)

   - MWH generation and MWH sales.
   - Coincident peak estimates and net power supply input from all sources and voltage levels.
   - Customer load data estimates from available load research information, adjusted MWH sales, and number of customers in the customer groupings and voltage levels identified in the model.
   - System default values, such as power factor, loading factors, and load factors by voltage level.

2. High Voltage System (Appendix A)

- Conductor information was summarized from a database by the Company which reflects the transmission system by voltage level. Extensive use was made of the Company's power flow data with the losses calculated and incorporated into the final loss calculations.

- Transformer information was developed in a database to model transformation at each voltage level. Substation power, step-up, and auto transformers were individually identified along with any operating data related to loads and losses.

- Power flow data and calculations for each hour (8760) formed the basis for the peak and annual load losses in the high voltage (500 kV through 69 kV) loss calculations.

3. Distribution System (Appendix B)

- Distribution Substations – Data was developed for modeling each substation as to its size and loading. The Company provided loss characteristics for each transformer. Loss calculations were performed from this data to determine no load losses separately for each transformer. The annual load losses were calculated using an average load level for each transformer which replaced the prior Hoebel formula method.

- Primary lines – Line loading and loss characteristics for several representative primary circuits were obtained from the Company. These loss results developed kW loss per MW of load and a composite average percentage was calculated to derive the primary loss estimate.

- Line transformers – Losses in line transformers were based on each customer service group's size, as well as the number of customers per transformer. Accounting and load data provided the foundation with which to model the transformer loadings and to calculate load and no load losses.

- Secondary network – Typical secondary networks were estimated for conductor sizes, lengths, loadings, and customer penetration for residential and small general service customers.

- Services – Typical services were estimated for each secondary service class of customers identified in the study with respect to type, length, and loading.

The loss analysis was thus performed by constructing the model in segments and subsequently calculating the composite until the constraints of peak demand and energy were met:

- Information as to the physical characteristics and loading of each transformer and conductor segment was modeled.
- Conductors, transformers, and distribution were grouped by voltage level, and unadjusted losses were calculated.
- The loss factors calculated at each voltage level were determined by "compounding" the per-unit losses. Equivalent sales at the supply point were obtained by dividing sales at a specific level by the compounded loss factor to determine losses by voltage level.
- The resulting demand and energy loss expansion factors were then used to adjust all sales to the generation or input level in order to estimate the difference.
- Reconciliation of kW and kWh sales by voltage level using the reported system kW and kWh was accomplished by adjusting the initial loss factor estimates until the mismatch or difference was eliminated (Appendix B, Exhibits 6 and 7).

3.2 Calculations and Analysis

This section provides a discussion of the input data, assumptions, and calculations performed in the loss analysis. Specific appendices have been included in order to provide documentation of the input data utilized in the model.

3.2.1 Bulk and Transmission Lines (500 kV – 69 kV)

The transmission line losses were calculated based on a modeling of unique voltage levels identified by the Company's power flow data and configuration for the entire integrated Power System (Appendix A). Specific information as to length of line, type of conductor, voltage level, and hourly loading were utilized as data input in the power flow analyses.

Actual MW and MVA line loadings were based on KU’s hourly loading conditions. Calculations of line losses were performed and summarized by fixed and variable components for both Transmission and GSU facilities for reporting purposes as shown in Appendix A of this report.

3.2.2 Bulk and Transmission Transformers

The transmission transformer loss analysis required several steps in order to properly consider the characteristics associated with various transformer types; such as, step-up, auto transformers, distribution substations, and line transformers. In addition, further efforts were required to identify both iron and copper losses within each of these transformer types in order to obtain reasonable peak (kW) and average annual energy (kWh) losses. While iron losses were considered essentially constant for each hour, recognition had to be made for the varying degree of copper losses due to hourly equipment loadings.

The remaining miscellaneous losses considered in the loss study consisted of several areas which do not lend themselves to any reasonable level of modeling for estimating their respective losses and were therefore lumped together into a single loss factor of 0.10%. The typical range of values for these losses is from 0.10% to 0.25%, and we have assumed the lower value to be conservative at this time. The losses associated with this loss factor include bus bars, unmetered station use, and grounding transformers.

3.2.3 Distribution System

The load data at the substation and customer level, coupled with primary and secondary network information, was sufficient to model the distribution system in adequate detail to calculate losses.

Distribution Substations

The Distribution Substation loss derivation required several steps to recognize the loss characteristics relating to iron or fixed losses versus the copper or load varying (I^2R) losses. The fixed component was based on Company loss characteristics from manufacturer's test results. The annual variable loss calculations considered a different approach by using an average hourly loading level and used this to the peak hour losses as a ratio $(\text{average/peak})^2$ times 8760 hours with an average adjustment factor and peak hour losses.

Primary Lines

Primary line loadings take into consideration the available distribution load along with the actual customer loads including losses. Primary line loss estimates were prepared by the Company for use in this loss study. These estimates considered loads per substation, voltage levels, loadings, total circuit miles, wire size, and single- to three-phase investment estimates. All of these factors were considered in calculating the actual demand (kW) and energy (kWh) for the primary system.

Line Transformers

Losses in line transformers were determined based on typical transformer sizes for each secondary customer service group and an estimated or calculated number of customers per transformer. Accounting records and estimates of load data provided the necessary database with which to model the loadings. These calculations also made it possible to determine separate copper and iron losses for distribution line transformers, based on a table of representative losses for various transformer sizes.

Secondary Line Circuits

A calculation of secondary line circuit losses was performed for loads served through these secondary line investments. Estimates of typical conductor sizes, lengths, loadings and customer class penetrations were made to obtain total circuit miles and losses for the secondary network. Customer loads which do not have secondary line requirements were also identified so that a reasonable estimate of losses and circuit miles of these investments could be made.

Service Drops and Meters

Service drops were estimated for each secondary customer reflecting conductor size, length and loadings to obtain demand losses. A separate calculation was also performed using customer maximum demands to obtain kWh losses. Meter loss estimates were also made for each customer and incorporated into the calculations of kW and kWh losses included in the Summary Results.

4.0 DISCUSSION OF RESULTS

A brief description of each Exhibit is provided in Appendices A and B:

Exhibit 1 – Summary of Company Data

This exhibit reflects system information used to determine percent losses and a detailed summary of kW and kWh losses by voltage level. The loss factors developed in Exhibit 7 are also summarized by voltage level.

Exhibit 2 – Summary of Conductor Information

A summary of MW and MWH load and no load losses for Distribution conductors by voltage levels is presented. The sum of all calculated losses by high voltage is based on input data information provided in Appendix A. Percent losses are based on equipment loadings.

Exhibit 3 – Summary of Transformer Information

This exhibit summarizes Distribution transformer losses by various types and voltage levels throughout the system. Load losses reflect the copper portion of transformer losses while iron losses reflect the no load or constant losses. MWH losses are estimated using an average load loss factor for copper and the annual load losses times the test year hours.

Exhibit 4 – Summary of Losses Diagram (2 Pages)

This loss diagram represents the inputs and output of power at system peak conditions. Page 1 details information from all points of the power system and what is provided to the distribution system for primary loads. This portion of the summary can be viewed as a "top down" summary into the distribution system.

Page 2 represents a summary of the development of primary line loads and distribution substations based on a "bottom up" approach. Basically, loadings are developed from the customer meter through the Company's physical investments based on load research and other metered information by voltage level to arrive at MW and MVA requirements during peak load conditions by voltage levels.

Exhibit 5 – Summary of Sales and Calculated Losses

Summary of Calculated Losses represents a tabular summary of MW and MWH load and no load losses by discrete areas of delivery within each voltage level. Losses have been identified and are derived based on summaries obtained from Exhibits 2 and 3 and losses associated with meters, capacitors and regulators.

LG&E AND KU SERVICES COMPANY
2010 Analysis of System Losses – KU Power System

Exhibit 6 – Development of Loss Factors, Unadjusted

This exhibit calculates demand and energy losses and loss factors by specific voltage levels based on sales level requirements. The actual results reflect loads by level and summary totals of losses at that level, or up to that level, based on the results as shown in Exhibit 5. Finally, the estimated values at generation are developed and compared to actual generation to obtain any difference or mismatch.

Exhibit 7 – Development of Loss Factors, Adjusted

The adjusted loss factors are the results of adjusting Exhibit 6 for any difference. All differences between estimated and actual are prorated to each level based on the ratio of each level's total load plus losses to the system total. These new loss factors reflect an adjustment in losses due only to the kW and kWh mismatch.

Exhibit 8 – Adjusted Losses and Loss Factors by Facility

These calculations present an expanded summary detail of Exhibit 7 for each segment of the power system with respect to the flow of power and associated losses from the receipt of energy at the meter to the generation for the KU power system.

Exhibit 9 – Summary of Losses by Delivery Voltage

These calculations present a reformatted summary of losses presented in Exhibits 7 and 8 by power system delivery segment as calculated by voltage level of service based on reported metered sales.

Appendix A

Results of LGEE (KU and LG&E) Transmission System 2010 Loss Analysis

Louisville Gas and Electric Company (LGE)
Kentucky Utilities Company (KU)
2011 Transmission Loss Analysis

Pages 1-2 Index

Schedule 1, Page 3
Presents the summary loss results of the calculated hourly losses for the Company's LGE and KU control areas at the annual peak hour and for the annual average losses for all hours of the year.

Calculated loss factors are applicable to the metered (output) sales level.

All data is from Schedule 2.

Section I - Summarizes the transmission loss results with GSU losses included.

Section II - Summarizes GSU only losses.

Section III - Summarizes the transmission only losses exluding GSU losses.

Schedule 1A, Page 4
Presents the summary loss results of the calculated hourly losses for the Company's LGE control areas at the annual peak hour and for the annual average losses for all hours of the year.

Schedule 1B, Page 5
Presents the summary loss results of the calculated hourly losses for the Company's KU control areas at the annual peak hour and for the annual average losses for all hours of the year.

Schedule 2, Page 6
Summary of the summer and winter peak hour MW and annual MWH losses for LGE and KU and the total system.

Results are detailed by segment and season: Summer (June, July, August, and September), Winter (all months excluding Summer months).

Loss data is from Schedule 3.

Schedule 3, Page 7
Summary of MW and MWH loss results for each control area by season and voltage level.

Schedule 4, Page 8
Summary of seasonal peak hour MW and average MWH loss results for LGE by season and voltage level.

Louisville Gas and Electric Company (LGE)
Kentucky Utilities Company (KU)
2011 Transmission Loss Analysis

Schedule 5, Page 9	Summary of seasonal peak hour MW and average MWH loss results for KU by season and voltage level.

Appendices:

Page 10	A - Peak Demand
Page 11	B - Monthly Energy
Page 12	C - Energy Summary
Page 13	D - Demand Summary

Appendices include summaries of hourly calculation of losses for each identified type at transmission voltage levels by season identified by fixed and variable with GSU losses identified separately.

Workpapers:

Page 14	1 - LGE
Page 15	2 - KU

Workpapers 1 and 2 present detailed summary results of eight separate power flows for each control area (LGE and KU) for a total of sixteen unique simulations and loss results.

3 - Corona Loss Calculations

Page 16	Page presents the Corona loss estimate and calculations by voltage level and control area (LGE and KU) for the peak in MW and the annual MWH for 2010.
Page 17	Page presents the pole miles by company and voltage level.

LGEE (LGE & KU) 2011 TRANSMISSION LOSS ANALYSIS (1)

	I	TRANSMISSION LOSSES WITH GSU	LOSSES	% OF TOTAL TRANSMISSION	INPUT	OUTPUT	LOSS FACTOR (Input/Output)
	A.	DEMAND	Peak (MW) Summer (June - September)				
1		LGE	57.9	27.8%	4,060	4,002	1.01448
2		KU	150.3	72.2%	4,865	4,715	1.03187
3		Total Demand Losses Combined (3)	208.2	100.0%	7,905	7,697	1.02705
4		Unmetered Station Use Adjustment					0.00100
5		Demand Loss Factor					1.02805
	B.	ENERGY	Annual MWH				
6		LGE	199,404	21.5%	21,626,727	21,427,323	1.00931
7		KU	727,568	78.5%	27,462,725	26,735,158	1.02721
8		Total Energy Losses Combined (3)	926,971	100.0%	43,634,621	42,707,650	1.02171
9		Unmetered Station Use Adjustment					0.00100
10		Energy Loss Factor					1.02271

	II	TRANSMISSION GSU LOSSES	LOSSES (MW)			LOSSES (MWH)		
			FIXED	VARIABLE	TOTAL	FIXED	VARIABLE	TOTAL
	A.	GSU LOSSES (2)						
11		LGE	2.90	8.50	11.40	15,715	38,826	54,541
12		KU	2.40	5.40	7.80	14,820	25,784	40,604
13		Total GSU Losses	5.30	13.90	19.20	30,535	64,610	95,145

	III	TRANSMISSION ONLY LOSSES	LOSSES	% OF TOTAL TRANSMISSION	INPUT	OUTPUT	LOSS FACTOR (Input/Output)
	A.	DEMAND LOSSES (Loss II-A)	Peak (MW) Summer (June - September)				
14		LGE	46.5	24.6%	4,049	4,002	1.01163
15		KU	142.5	75.4%	4,857	4,715	1.03021
16		Total Demand Combined (2)	189.0	100.0%	7,886	7,697	1.02456
17		Unmetered Station Use Adjustment					0.00100
18		Demand Loss Factor					1.02556
	B.	ENERGY LOSSES (Loss II-A)	Annual MWH				
19		LGE	144,863	17.4%	21,572,186	21,427,323	1.00676
20		KU	686,964	82.6%	27,422,121	26,735,158	1.02570
21		Total Energy Combined (2)	831,826	100.0%	43,539,476	42,707,650	1.01948
22		Unmetered Station Use Adjustment					0.00100
23		Energy Loss Factor					1.02048

Notes:
(1) Study Period from February 2011 through January 2012.
(2) GSU losses from Schedule 3.
(3) See Schedule 1A, Schedule 1B, and Schedule 2.

LGE 2011 TRANSMISSION LOSS ANALYSIS

I TRANSMISSION LOSSES WITH GSU

		LOSSES	INPUT	OUTPUT	LOSS FACTOR (Input/Output)
	A. DEMAND	**Peak (MW) Summer (June - September)**			
1	LGE	57.9	4,060	4,002	1.01448
2	Unmetered Station Use Adjustment				0.00100
3	Demand Loss Factor				1.01548
	B. ENERGY	**Annual MWH**			
4	LGE	199,404	21,626,727	21,427,323	1.00931
5	Unmetered Station Use Adjustment				0.00100
6	Energy Loss Factor				1.01031

II TRANSMISSION GSU LOSSES

		LOSSES (MW)			LOSSES (MWH)		
		FIXED	VARIABLE	TOTAL	FIXED	VARIABLE	TOTAL
	A. GSU LOSSES (1)						
7	LGE	2.90	8.50	11.40	15,715	38,826	54,541

III TRANSMISSION ONLY LOSSES

		LOSSES	INPUT	OUTPUT	LOSS FACTOR (Input/Output)
	A. DEMAND LOSSES	**Peak (MW) Summer (June - September)**			
8	LGE (Line 1 - Line 7)	46.5	4,049	4,002	1.01163
9	Unmetered Station Use Adjustment				0.00100
10	Demand Loss Factor				1.01263
	B. ENERGY LOSSES	**Annual MWH**			
11	LGE (Line 4 - Line 7)	144,863	21,572,186	21,427,323	1.00676
12	Unmetered Station Use Adjustment				0.00100
13	Energy Loss Factor				1.00776

Notes:
1. GSU losses from Schedule 3.
2. See Schedule 2

KU 2011 TRANSMISSION LOSS ANALYSIS

I TRANSMISSION LOSSES WITH GSU

		LOSSES	INPUT	OUTPUT	LOSS FACTOR (Input/Output)
	A. DEMAND	**Peak (MW) Summer (June - September)**			
1	KU	150.3	4,865	4,715	1.03187
2	Unmetered Station Use Adjustment				0.00100
3	Demand Loss Factor				1.03287
	B. ENERGY	**Annual MWH**			
4	KU	727,568	27,462,725	26,735,158	1.02721
5	Unmetered Station Use Adjustment				0.00100
6	Energy Loss Factor				1.02821

II TRANSMISSION GSU LOSSES

		LOSSES (MW)			LOSSES (MWH)		
		FIXED	VARIABLE	TOTAL	FIXED	VARIABLE	TOTAL
	A. GSU LOSSES (1)						
7	KU	2.40	5.40	7.80	14,820	25,784	40,604

III TRANSMISSION ONLY LOSSES

		LOSSES	INPUT	OUTPUT	LOSS FACTOR (Input/Output)
	A. DEMAND LOSSES	**Peak (MW) Summer (June - September)**			
8	KU (Line 1 - Line 7)	142.5	4,857	4,715	1.03021
9	Unmetered Station Use Adjustment				0.00100
10	Demand Loss Factor				1.03121
	B. ENERGY LOSSES	**Annual MWH**			
11	KU (Line 4 - Line 7)	686,964	27,422,121	26,735,158	1.02570
12	Unmetered Station Use Adjustment				0.00100
13	Energy Loss Factor				1.02670

Notes:
1. GSU losses from Schedule 3.
2. See Schedule 2

LGEE (LGE & KU) POWER FLOW RESULTS - SUMMARY OF LOSSES

		PEAK (SUMMER)		PEAK (OTHER)		ANNUAL	
	TRANSMISSION LOSSES WITH GSU	**Total (MW)**	**% of Total System Losses**	**Total (MW)**	**% of Total System Losses**	**Total Annual (MWH)**	**% of Total System Losses**
	LGE						
1	Transmission Use (Peak MW, Annual MWH)	4,002		3,300		21,427,323	
2	Input (Line 1 + Line 5)	4,060		3,328		21,626,727	
	Transmission						
3	Fixed	5.9	2.9%	5.2	2.3%	43,657	4.7%
4	Variable	52.0	25.0%	22.5	10.0%	155,747	16.8%
5	Total Transmission - LGE	57.9	27.8%	27.7	12.3%	199,404	21.5%
6	Losses % of Input (Line 5/Line 2)	1.43%		0.83%		0.92%	
7	Losses % of Output (Line 5/Line 1)	1.45%		0.84%		0.93%	
	KU						
8	Transmission Use (Peak MW, Annual MWH)	4,715		4,961		26,735,158	
9	Input (Line 8 + Line 12)	4,865		5,159		27,462,725	
	Transmission						
10	Fixed	8.2	3.9%	8.1	3.6%	67,476	7.3%
11	Variable	142.0	68.2%	190.0	84.1%	660,091	71.2%
12	Total Transmission - KU	150.3	72.2%	198.1	87.7%	727,568	78.5%
13	Losses % of Input (Line 12/Line 9)	3.09%		3.84%		2.65%	
14	Losses % of Output (Line 2/Line 8)	3.19%		3.99%		2.72%	
	TOTAL LGE & KU						
15	LGEE Load (Peak MW, Annual MWH) Input	8,925		8,487		49,089,452	
16	LGE Energy Delivery to KU	-1,020		-1,228		-5,454,831	
17	Total Load (Peak MW, Annual MWH)	7,905		7,259		43,634,621	
	Transmission						
18	Fixed	14.2	6.8%	13.4	5.9%	111,133	12.0%
19	Variable	194.0	93.2%	212.5	94.1%	815,838	88.0%
20	Total System	208.2	100.0%	225.9	100.0%	926,971	100.0%
21	Losses % of Input (Line 20/Line 15)	2.33%		2.66%		1.89%	
22	Losses % of Output (Line 20/(Line 15/Line 20))	2.39%		2.73%		1.92%	

COMBINED LGEE DELIVERED ENERGY & LOSSES

		SUMMER		WINTER		ANNUAL	
23	LGEE Load (All data in MWH) Output	17,146,907		31,015,574		48,162,481	
24	LGE Energy Delivery to KU	-1,689,262		-3,765,569		-5,454,831	
25	Total Load (Annual MWH) Output	15,457,645		27,250,005		42,707,650	
	Transmission Losses						
26	Fixed	37,940	11.1%	73,193	12.5%	111,133	12.0%
27	Variable	303,970	88.9%	511,869	87.5%	815,838	88.0%
28	Total Transmission Losses	341,909	100.0%	585,062	100.0%	926,971	100.0%
29	Losses % of Output (Line 28/Line 23)	1.99%		1.89%		1.92%	

LGEE (LGE & KU) POWER FLOW RESULTS - TOTAL TRANSMISSION

CONDUCTOR AND TRANSFORMER LOSSES (MW)

TIME	MW TRANSMISSION USE	Transmission Fixed	Transmission Variable	GSU Fixed	GSU Variable	Subtotal Conductor & Transformer	Load Adjustment for Combined Only
OTHER - LGE							
1 PEAK - MW	3,300	3.15	16.50	2.10	6.00	27.75	1228.00
2 LOSS % TO LOAD		0.095%	0.500%	0.064%	0.182%	0.841%	
3 LOSS % TO TOTAL LOSSES		11.349%	59.461%	7.568%	21.622%	100.000%	
4							
5 OTHER MWH	13,679,183	18,668	63,034	10,054	24,023	115,779	3,765,569
6 LOSS % TO LOAD		0.136%	0.461%	0.073%	0.176%	0.846%	
7 LOSS % TO TOTAL LOSSES		16.124%	54.443%	8.684%	20.749%	100.000%	
SUMMER - LGE							
8 PEAK - MW	4,002	3.05	43.50	2.90	8.50	57.95	1020.00
9 LOSS % TO LOAD		0.076%	1.087%	0.072%	0.212%	1.448%	
10 LOSS % TO TOTAL LOSSES		5.262%	75.066%	5.004%	14.668%	100.000%	
11							
12 SUMMER MWH	7,748,140	9,274	53,887	5,661	14,803	83,625	1,689,262
13 LOSS % TO LOAD		0.120%	0.695%	0.073%	0.191%	1.079%	
14 LOSS % TO TOTAL LOSSES		11.090%	64.439%	6.770%	17.702%	100.000%	
TOTAL ANNUAL - LGE							
15 SUMMER PEAK - MW	4,002	3.05	43.50	2.90	8.50	57.95	1020.00
16 ANNUAL MWH	21,427,323	27,942	116,921	15,715	38,826	199,404	5,454,831
17 LOSS % TO TOTAL ANNUAL OUTPUT		0.130%	0.546%	0.073%	0.181%	0.931%	
LOSS FACTORS - LGE							
18 Demand						1.01448	
19 Energy						1.00931	
OTHER - KU							
20 PEAK - MW	4,961	5.81	183.94	2.30	6.10	198.15	
21 LOSS % TO LOAD		0.117%	3.708%	0.046%	0.123%	3.994%	
22 LOSS % TO TOTAL		2.930%	92.831%	1.161%	3.079%	100.000%	
23							
24 OTHER MWH	17,336,391	35,105	408,661	9,366	16,151	469,283	
25 LOSS % TO LOAD		0.202%	2.357%	0.054%	0.093%	2.707%	
26 LOSS % TO TOTAL LOSSES		7.481%	87.082%	1.996%	3.442%	100.000%	
SUMMER - KU							
27 PEAK - MW	4,715	5.81	136.65	2.40	5.40	150.25	
28 LOSS % TO LOAD		0.123%	2.898%	0.051%	0.115%	3.187%	
29 LOSS % TO TOTAL		3.864%	90.945%	1.597%	3.594%	100.000%	
30							
31 SUMMER MWH	9,398,766	17,551	225,647	5,454	9,633	258,285	
32 LOSS % TO LOAD		0.187%	2.401%	0.058%	0.102%	2.748%	
TOTAL ANNUAL - KU							
33 PEAK - MW	4,715	5.81	136.65	2.40	5.40	150.25	
34 ANNUAL MWH	26,735,158	52,656	634,307	14,820	25,784	727,568	
35 LOSS % TO TOTAL ANNUAL OUTPUT		0.197%	2.373%	0.055%	0.096%	2.721%	
LOSS FACTORS - KU							
36 Demand						1.03187	
37 Energy						1.02721	
TOTAL ANNUAL - LGEE OUTPUT & LOSSES							
38 PEAK SUMMER - MW	8,717	8.86	180.15	5.30	13.90	208.20	1020.00
39 SUMMER MWH	17,146,907	26,825	279,534	11,115	24,436	341,909	1,689,262
40 PEAK OTHER MW	8,262	8.96	200.44	4.40	12.10	225.90	1228.00
41 OTHER MWH	31,015,574	53,773	471,695	19,420	40,174	585,062	3,765,569
42 ANNUAL MWH	48,162,481	80,598	751,228	30,535	64,610	926,971	5,454,831

LGE POWER FLOW RESULTS

CONDUCTOR AND TRANSFORMER LOSSES (MW)

	TIME	MW-LGE TRANSMISSION USE	Transmission Fixed (4)	Transmission Variable	GSU Fixed	GSU Variable	Subtotal Conductor & Transformer
	OTHER - LGE						
1	PEAK - MW	3,300	3.15	16.50	2.10	6.00	27.75
2	LOSS % TO LOAD		0.095%	0.500%	0.064%	0.182%	0.841%
3	LOSS % TO TOTAL LOSSES		11.349%	59.461%	7.568%	21.622%	100.000%
4							
5	OTHER MWH	13,679,183	18,668	63,034	10,054	24,023	115,779
6	LOSS % TO LOAD		0.136%	0.461%	0.073%	0.176%	0.846%
7	LOSS % TO TOTAL LOSSES		16.124%	54.443%	8.684%	20.749%	100.000%
	SUMMER - LGE						
8	PEAK - MW	4,002	3.05	43.50	2.90	8.50	57.95
9	LOSS % TO LOAD		0.076%	1.087%	0.072%	0.212%	1.448%
10	LOSS % TO TOTAL LOSSES		5.262%	75.066%	5.004%	14.668%	100.000%
11							
12	SUMMER MWH	7,748,140	9,274	53,887	5,661	14,803	83,625
13	LOSS % TO LOAD		0.120%	0.695%	0.073%	0.191%	1.079%
14	LOSS % TO TOTAL LOSSES		11.090%	64.439%	6.770%	17.702%	100.000%
	TOTAL ANNUAL - LGE						
15	SUMMER PEAK - MW	4,002	3.05	43.50	2.90	8.50	57.95
16	LOSS % TO SUMMER PEAK MW		0.076%	1.087%	0.072%	0.212%	1.448%
17	ANNUAL MWH	21,427,323	27,942	116,921	15,715	38,826	199,404
18	LOSS % TO ANNUAL MWH		0.130%	0.546%	0.073%	0.181%	0.931%
	LOSS FACTORS - LGE						
19	Demand						1.01448
20	Energy						1.00931

NOTES:
(1) Summer Period includes June, July, August, and September.
(2) Other Period includes all non Summer Period months.
(3) Transmission Use = Load + Exports + Passthroughs
(4) Transmission Fixed includes Corona Losses

KU POWER FLOW RESULTS

CONDUCTOR AND TRANSFORMER LOSSES (MW)

	TIME	MW-KU TRANSMISSION USE	Transmission Fixed (4)	Transmission Variable (5)	GSU Fixed	GSU Variable	Subtotal Conductor & Transformer
	OTHER - KU						
1	PEAK - MW	4,961	5.81	183.94	2.30	6.10	198.15
2	LOSS % TO LOAD		0.117%	3.708%	0.046%	0.123%	3.994%
3	LOSS % TO TOTAL LOSSES		2.930%	92.831%	1.161%	3.079%	100.000%
4							
5	OTHER MWH	17,336,391	35,105	408,661	9,366	16,151	469,283
6	LOSS % TO LOAD		0.202%	2.357%	0.054%	0.093%	2.707%
7	LOSS % TO TOTAL LOSSES		7.481%	87.082%	1.996%	3.442%	100.000%
	SUMMER - KU						
8	PEAK - MW	4,715	5.81	136.65	2.40	5.40	150.25
9	LOSS % TO LOAD		0.123%	2.898%	0.051%	0.115%	3.187%
10	LOSS % TO TOTAL LOSSES		3.864%	90.945%	1.597%	3.594%	100.000%
11							
12	SUMMER MWH	9,398,766	17,551	225,647	5,454	9,633	258,285
13	LOSS % TO LOAD		0.187%	2.401%	0.058%	0.102%	2.748%
14	LOSS % TO TOTAL LOSSES		6.795%	87.364%	2.112%	3.730%	100.000%
	TOTAL ANNUAL - KU						
15	SUMMER PEAK - MW	4,715	5.81	136.65	2.40	5.40	150.25
16	LOSS % TO SUMMER PEAK MW		0.123%	2.898%	0.051%	0.115%	3.187%
17	ANNUAL MWH	26,735,158	52,656	634,307	14,820	25,784	727,568
18	LOSS % TO ANNUAL MWH		0.197%	2.373%	0.055%	0.096%	2.721%
	LOSS FACTORS - KU						
19	Demand						1.03187
20	Energy						1.02721

NOTES:
(1) Summer Period includes June, July, August, and September.
(2) Other Period includes all non Summer Period months.
(3) Transmission Use = Load + Exports + Passthroughs
(4) Transmission Fixed includes Corona Losses
(5) Transmission Variable includes Losses at 0.5% from Appendix A (MW) and Appendix B (MWH)

Kentucky Utilities	OTHER 2/11/11 8:00 February-11	SUMMER 7/11/11 16:00 July-11	OTHER	SUMMER
Loads:				
1 KU Load (including losses)	4,292	4,102		
2 EKPC on KU	446	355		
3 TVA on KU	59	58		
4 OMU Load (3%)	-	12		
5 BREC on KU	6	6		
6 KMPA Load (3%)	108	129		
7 Total Load	4,911	4,662	4,911.00	4,662.00
Export (Delivered):				
8 KU Off-System Sales	-	-		
9 AMEM - Pass Through	-	-		
10 CARGILL - Pass Through	-	-		
11 OMU Exports	249	204		
12 KMPA Exports	-	-		
13 Constellation - Pass Through	-	-		
14 TEA - Pass Through	-	-		
15 TVA (OATT) - Pass Through	-	-		
16 Total Exports	249	204	249.00	204.00
17 BTM (0.5%) - OMU Network Load	112	182		
18 BTM (0.5%) - KMPA Gen	-	49		
19 Total BTM	112	231		
			5,160.00	4,866.00
20 Losses at 0.5%	0.560	1.155		
21 Losses from Schedule 5, Lines 1 and 8			-198.71	-151.41
22 Peak MW Load			4,961.29	4,714.59

Louisville Gas and Electric				
Loads:				
23 LGE Load (including losses)	1,725	2,654		
23 EKPC on LGE	61	77		
24 Hoosier on LGE	5	6		
25 Total Load	1,791	2,737	1,791.00	2,737.00
Export (Delivered):				
26 IMEA	146	146		
27 IMPA	155	157		
28 LGE Off-System Sales	8	-		
29 OVEC to SIGE	-	-		
30 Total Exports	309	303	309.00	303.00
31 LGE to KU	1,228	1,020	1,228.00	1,020.00
			3,328.00	4,060.00
32 Losses from Schedule 4, Lines 1 and 8			-27.75	-57.95
33 Peak MW Load			3,300.25	4,002.05

Notes:
(1) Information above was gathered through the Peak Load spreadsheet which is used for FERC Form 1 data collection. Additionally, information was gathered from the individual billings each month, which also flows into FERC Form 1.
(2) OSS information was gathered through multiple spreadsheets from Revenue Accounting and Transmission groups.

Kentucky Utilities

Prepared by: FR/DH

	February-11	March-11	April-11	May-11	June-11	July-11	August-11	September-11	October-11	November-11	December-11	January-12	Total	Other	Summer
Loads:															
1 KU Load (including losses)	1,882,033	1,838,010	1,567,127	1,688,187	1,906,541	2,167,087	2,097,914	1,653,158	1,650,548	1,687,623	1,918,215	2,083,767	22,140,210		
2 EKPC on KU	192,766	183,756	155,967	163,451	164,293	182,579	182,121	147,273	142,289	161,421	192,322	213,632	2,081,870		
3 TVA on KU	30,019	26,656	20,497	22,985	27,885	34,587	29,211	21,634	19,664	26,719	36,278	34,830	330,965		
4 OMU Load (3%)	-	-	-	555	-	1,043	1,328	165	6,757	-	-	-	9,848		
5 BREC on KU	3,047	2,972	2,440	2,382	2,575	2,943	3,367	3,272	3,715	2,495	3,797	4,364	37,370		
6 KMPA Load (3%)	53,933	54,624	50,868	58,455	71,032	79,177	77,514	57,137	49,740	51,011	56,115	56,274	715,880		
7 Total Load	2,161,798	2,106,018	1,796,898	1,936,015	2,172,326	2,467,416	2,391,455	1,882,639	1,872,713	1,929,269	2,206,727	2,392,867	25,316,143	16,402,307	8,913,836
Export (Delivered):															
8 KU Off-System Sales	10,003	1,971	14	13,001	23,568	12,175	4,828	384	29,307	2,890	542	265	98,948		
9 AMEM - Pass Through	-	-	2,400	-	-	-	-	-	12,000	2,400	11,338	51,500	79,638		
10 CARGILL - Pass Through	31,261	100	-	23,399	2,400	-	-	20,527	13,749	70	-	-	91,506		
11 OMU Exports	165,206	183,023	175,905	50,051	156,463	143,444	137,842	155,042	106,507	137,874	176,030	158,940	1,746,327		
12 KMPA Exports	-	-	-	-	-	-	-	-	59	-	-	-	59		
13 Constellation - Pass Through	-	-	-	11,734	4,740	24,485	34,163	25,048	34,099	-	-	-	134,269		
14 TEA - Pass Through	-	-	-	-	-	-	-	-	59	66	-	-	125		
15 TVA (OATT) - Pass Through	-	-	308	-	-	-	-	-	-	-	-	-	308		
16 Total Exports	206,470	185,094	178,627	98,185	187,171	180,104	176,833	201,001	195,780	143,300	187,910	210,705	2,151,180	1,406,071	745,109
17 BTM (0.5%) - OMU Network Load	64,375	67,851	62,989	71,662	86,097	103,156	96,293	73,876	61,587	65,420	69,832	70,719	893,857		
18 BTM (0.5%) - KMPA Gen	-	-	-	1,054	4,315	9,837	4,422	858	1,839	-	1,479	1,872	25,677		
19 Total BTM	64,375	67,851	62,989	72,716	90,412	112,993	100,715	74,734	63,426	65,420	71,311	72,591	919,534		
20 Losses at 0.5%	322	339	315	364	452	565	504	374	317	327	357	363	4,598		
21 Total MWH Input														17,808,378	9,658,945
22 Losses from Schedule 5, Lines 5 and 12														-471,986	-260,179
23 Total MWH Output														17,336,391	9,398,766

Louisville Gas and Electric

	February-11	March-11	April-11	May-11	June-11	July-11	August-11	September-11	October-11	November-11	December-11	January-12	Total	Other	Summer
Loads:															
23 LGE Load (including losses)	903,869	935,217	852,840	998,568	1,189,433	1,431,090	1,316,506	968,118	877,979	870,461	958,046	988,020	12,290,147		
24 EKPC on LGE	25,617	24,530	20,953	24,482	30,141	37,883	33,856	23,583	21,869	22,649	27,706	29,346	322,615		
25 Hoosier on LGE	3,006	3,093	2,628	3,247	3,465	3,908	3,767	3,220	3,081	2,998	3,210	3,263	38,886		
26 Total Load	932,492	962,840	876,421	1,026,297	1,223,039	1,472,881	1,354,129	994,921	902,929	896,108	988,962	1,020,629	12,651,648	7,606,677	5,044,971
Export (Delivered):															
27 IMEA	87,925	74,691	45,921	89,073	102,288	100,626	86,582	74,691	75,238	61,640	90,715	99,872	989,262		
28 IMPA	93,431	79,319	48,912	94,516	107,515	106,729	90,741	77,329	79,575	65,340	97,587	105,971	1,046,965		
29 LGE Off-System Sales	155,240	139,458	45,904	124,917	96,244	96,890	49,158	108,739	205,726	207,341	158,716	95,688	1,484,021		
30 OVEC to SIGE	-	-	-	-	-	-	-	-	-	-	-	-	-		
31 Total Exports	336,596	293,468	140,737	308,506	306,047	304,245	226,481	260,759	360,539	334,321	347,018	301,531	3,520,248	2,422,716	1,097,532
32 LGE to KU	484,518	444,877	370,225	397,072	364,002	440,065	446,201	438,994	458,456	438,203	561,790	610,428	5,454,831	3,765,569	1,689,262
33 Total MWH Input														13,794,962	7,831,765
34 Losses from Schedule 4, Lines 5 and 12														-115,779	-83,625
35 Total MWH Output														13,679,183	7,748,140

Information above was gathered through the Peak Load spreadsheet which is used for FERC Form 1 data collection. Additionally, information was gathered from the individual billings each month, which also flows into FERC Form 1
OSS information was gathered through multiple spreadsheets from Revenue Accounting and Transmission groups.

LGEE Loss Summary

	LGE Loss Summary		Transmission Losses		Generation Losses	
	Season	Month	Fixed	Variable	Fixed	Variable
1	O	01	1,944	8,405	1,405	3,124
2	O	02	1,753	7,950	1,165	3,114
3	O	03	1,970	8,159	1,205	3,317
4	O	04	1,923	6,323	1,217	2,547
5	O	05	1,978	9,932	1,207	3,076
6	S	06	1,877	13,384	1,289	3,615
7	S	07	1,933	16,655	1,542	4,380
8	S	08	1,940	15,067	1,454	3,936
9	S	09	1,915	8,781	1,376	2,872
10	O	10	1,999	7,087	1,180	2,917
11	O	11	1,937	6,926	1,273	2,856
12	O	12	1,960	8,252	1,402	3,072
13		Total	23,129	116,921	15,715	38,826
14		Summer Corona	1,609			
15	S	Total LGE Summer	9,274	53,887	5,661	14,803
16		Other Corona	3,204			
17	O	Total LGE Other	18,668	63,034	10,054	24,023

	KU Loss Summary		Transmission Losses		Generation Losses	
	Season	Month	Fixed	Variable	Fixed	Variable
18	O	01	3,246	66,020	1,272	2,314
19	O	02	2,937	65,153	1,209	2,146
20	O	03	3,279	51,357	1,244	2,220
21	O	04	3,200	40,542	1,058	1,929
22	O	05	3,312	41,568	1,190	2,000
23	S	06	3,155	59,549	1,405	2,449
24	S	07	3,247	64,025	1,459	2,832
25	S	08	3,260	61,754	1,436	2,666
26	S	09	3,187	42,213	1,154	1,686
27	O	10	3,306	42,719	1,079	1,752
28	O	11	3,189	49,382	1,089	1,865
29	O	12	3,271	54,623	1,225	1,925
30		Total	38,589	638,905	14,820	25,784
31		Summer Corona	4,702			
32	S	Total KU Summer	17,551	227,541	5,454	9,633
33		Other Corona	9,365			
34	O	Total KU Other	35,105	411,364	9,366	16,151

	LGEE Loss Summary		Transmission Losses		Generation Losses	
	Season	Month	Fixed	Variable	Fixed	Variable
35	O	01	5,190	74,425	2,677	5,438
36	O	02	4,690	73,103	2,374	5,260
37	O	03	5,249	59,516	2,449	5,537
38	O	04	5,123	46,865	2,275	4,476
39	O	05	5,290	51,500	2,397	5,076
40	S	06	5,032	72,933	2,694	6,064
41	S	07	5,180	80,680	3,001	7,212
42	S	08	5,200	76,821	2,890	6,602
43	S	09	5,102	50,994	2,530	4,558
44	O	10	5,305	49,806	2,259	4,669
45	O	11	5,126	56,308	2,362	4,721
46	O	12	5,231	62,875	2,627	4,997
47		Total	61,718	755,826	30,535	64,610
48		Summer Corona	6,311			
49	S	Total LGEE Summer	26,825	281,428	11,115	24,436
50		Other Corona	12,569			
51	O	Total LGEE Other	53,773	474,398	19,420	40,174

Notes:
(1) Includes Corona Losses from Workpaper 3

Summer Peak Hour 2011-07-11-1600

		Transmission Losses		Generation Losses	
		Fixed (1)	Variable	Fixed	Variable
1	KU	5.8	137.8	2.4	5.4
2	LG&E	3.0	43.5	2.9	8.5
3	Combined	8.9	181.3	5.3	13.9

Winter Peak Hour 2011-02-11-0800

		Transmission Losses		Generation Losses	
		Fixed (1)	Variable	Fixed	Variable
4	KU	5.8	184.5	2.3	6.1
5	LG&E	3.1	16.5	2.1	6.0
6	Combined	9.0	201.0	4.4	12.1

		Corona Losses (MW)
		Fixed (1)
7	KU	1.606
8	LG&E	0.549
9	Combined	2.155

Notes:
(1) Includes Corona Losses from Workpaper 3

Hour	LG&E Load	KU on LG&E	EKPC on LG&E	HE on LG&E	LG&E T Loss-f	LG&E T Loss-v	LG&E G Loss-f	LG&E G Loss-v	Net Export	BLG Export	Month
2011-02-01-0100	1217.7	6.3	35.6	4.3	2.6	11.5	1.7	4.6	1394.6	0	02
2011-02-01-0200	1179.1	6	34.4	4.4	2.6	11	1.7	4.4	1373.9	0	02
2011-02-01-0300	1147.9	5.8	33.6	4	2.6	10.8	1.7	4.3	1354.7	0	02
2011-02-01-0400	1138.1	5.6	33	4	2.6	11.6	1.7	4.3	1374.9	0	02
2011-02-01-0500	1149.1	5.7	33.8	3.9	2.6	12	1.7	4.5	1398.1	0	02
2011-02-01-0600	1201.1	6	37.3	4	2.6	12.5	1.7	4.6	1379.2	0	02
2011-02-01-0700	1347.6	6.8	41.9	4.1	2.6	15.3	1.7	5.6	1454.3	0	02
2011-02-01-0800	1429.8	7.2	43.4	4.3	2.6	15.6	1.7	5.6	1354.1	0	02
2011-02-01-0900	1431	7.1	41.9	4.7	2.6	15.6	1.7	5.5	1329.5	0	02
2011-02-01-1000	1424.8	7	41	4.6	2.6	15.4	1.7	5	1236.6	0	02
2011-02-01-1100	1440.5	7	40.8	4.6	2.6	14	1.7	4.6	1122.7	0	02
2011-02-01-1200	1442.4	6.9	40.3	4.5	2.6	14.3	1.7	4.7	1132	0	02
2011-02-01-1300	1438.7	6.8	40.3	4.5	2.6	14.5	1.7	4.8	1159.1	0	02
2011-02-01-1400	1394.7	6.7	39.4	4.4	2.6	13.6	1.7	4.6	1138.9	0	02
2011-02-01-1500	1371.6	6.6	39	4.6	2.6	13.2	1.7	4.3	1098	0	02
2011-02-01-1600	1388.5	6.7	39.7	4.6	2.6	13.2	1.7	4.2	1038.9	0	02
2011-02-01-1700	1408.8	6.8	41.6	4.3	2.6	13.5	1.7	4.3	1064.8	0	02
2011-02-01-1800	1448.7	7	44.2	4.3	2.6	14.7	1.7	4.6	1129.1	0	02
2011-02-01-1900	1483.7	7.2	45.7	4.4	2.6	15.1	1.7	4.8	1162.1	0	02
2011-02-01-2000	1450.8	7.1	45.2	4.7	2.6	15	1.7	4.6	1149.2	0	02
2011-02-01-2100	1414.2	7	44	4.7	2.6	14.5	1.7	4.6	1163.9	0	02
2011-02-01-2200	1337.9	6.6	41.1	4.6	2.6	12.8	1.7	4.5	1190.9	0	02
2011-02-01-2300	1255.5	6.1	37.2	4.2	2.6	11.5	1.7	4.1	1168.2	0	02
2011-02-02-0000	1140.4	5.7	32.8	4	2.6	9	1.7	3.4	1062.1	0	02
2011-02-02-0100	1076.3	5.4	30.7	4.3	2.6	8.1	1.7	3.2	1029.2	0	02
2011-02-02-0200	1046.7	5.3	30.5	4.2	2.6	7.9	2.1	3.3	1168.7	0	02
2011-02-02-0300	1071.2	5.4	32.4	4.1	2.6	8.1	2.1	3.5	1273.5	0	02
2011-02-02-0400	1101.7	5.7	35.5	4.2	2.6	8.3	2	3.6	1282.3	0	02
2011-02-02-0500	1162.1	6.1	38.3	4.3	2.6	9.4	2.1	4.2	1451.1	0	02
2011-02-02-0600	1230.2	7	42.9	4.5	2.6	10.5	2.1	4.6	1495.4	0	02
2011-02-02-0700	1387.9	8.1	49.3	4.7	2.6	13.1	2.1	5.6	1531.5	0	02
2011-02-02-0800	1502.7	9	51.8	4.6	2.6	15.4	2.1	6.5	1611.9	0	02
2011-02-02-0900	1511.5	9	50.4	4.6	2.6	15.2	2.1	6.3	1585.1	0	02
2011-02-02-1000	1514.9	9.3	49.8	4.8	2.6	15.1	2.1	6.2	1560.6	0	02
2011-02-02-1100	1544.2	9.1	49.4	4.9	2.6	15.6	2.1	6.4	1580	0	02
2011-02-02-1200	1552	9.1	49	4.7	2.6	15.7	2.1	6.4	1549	0	02
2011-02-02-1300	1558.5	9	48.6	4.5	2.6	15.9	2.1	6.8	1617.1	0	02
2011-02-02-1400	1559.7	8.9	48.3	4.5	2.6	16	2.1	6.7	1606.8	0	02
2011-02-02-1500	1554.9	8.8	47.3	4.5	2.6	15.8	2.1	6.6	1601.7	0	02
2011-02-02-1600	1538.9	8.7	47.9	4.6	2.6	15.6	2.1	6.5	1595	0	02
2011-02-02-1700	1537.9	8.6	50.4	5	2.6	15.6	2.1	6.9	1654.1	0	02
2011-02-02-1800	1556.3	9	52.5	5	2.6	15.6	2.1	6.7	1595.9	0	02
2011-02-02-1900	1616.8	9.4	56.5	5	2.6	16.6	2.1	6.5	1492.9	0	02
2011-02-02-2000	1618.7	9.4	57.6	5	2.6	16.6	2.1	6.5	1486	0	02

Hour	KU Load	KU on LG&E	KU on EKPC	EKPC on KU	BREC on KU	TVA on KU	OMU on KU	KMPA on KU	KU T Loss-f	KU T Loss-v	KU G Loss-f	KU G Loss-v	Net Export	OMU Export	PADP Gen	Month
2011-02-01-0100	2345.7	6.3	59.6	280.6	5	37.6	82	68.6	4.4	85.8	1.9	2.1	-1050.5	146.1	0	02
2011-02-01-0200	2259.9	6	57.9	265.6	4.9	35.2	83.5	65	4.4	82.9	1.9	1.9	-924.7	200.2	0	02
2011-02-01-0300	2191.3	5.8	56.9	257.6	4.7	33.7	82.5	63.8	4.4	82.7	1.9	1.8	-891.2	209	0	02
2011-02-01-0400	2131.8	5.6	56.5	257.6	4.7	32.5	83.8	63.4	4.4	88.1	1.9	1.9	-713	261.3	0	02
2011-02-01-0500	2137.1	5.7	56.5	259.3	4.5	32.5	85.3	64.1	4.4	88	1.9	2.1	-658.3	285.5	0	02
2011-02-01-0600	2244.3	6	58.2	274.8	5.3	33.8	86.3	66.1	4.4	92.3	1.9	2.3	-679.2	282.5	0	02
2011-02-01-0700	2500.3	6.8	62.4	286.8	5.5	37.6	91.7	72.1	4.3	103.6	1.9	3.5	-549.8	277.5	0	02
2011-02-01-0800	2682.1	7.2	67.2	271.4	5.6	43	102.2	82.5	4.3	100	1.9	3.5	-768.4	277	0	02
2011-02-01-0900	2691.9	7.1	68.7	287	5.7	40.3	110.7	88.1	4.3	100.7	1.9	3.5	-802.1	259.3	0	02
2011-02-01-1000	2698.6	7	69	273.9	6.1	38.8	111.1	91.6	4.3	100.1	1.9	3.5	-811.1	222.6	0	02
2011-02-01-1100	2693.2	7	68.6	279.1	5.4	38.7	111.1	92.6	4.4	92.6	1.9	3.1	-1025.6	139.2	0	02
2011-02-01-1200	2651	6.9	67.8	248.7	5.9	38.1	111	93.1	4.4	90.2	1.9	3	-973.1	146.9	0	02
2011-02-01-1300	2613.9	6.8	67	275.6	6	37.6	110	93.3	4.4	90.3	1.8	3.2	-891.5	181	0	02
2011-02-01-1400	2572.4	6.7	66.8	272.8	5.7	37.1	108.8	92.7	4.4	85.9	1.8	2.9	-969.7	143.2	0	02
2011-02-01-1500	2589.4	6.6	67.4	265.5	5.9	36.7	111.3	91.2	4.4	86.2	1.8	3.1	-898.7	166	0	02
2011-02-01-1600	2575.3	6.7	66.9	274.1	6.1	36.9	111.4	89.8	4.4	88.3	1.8	3.3	-812.7	181	0	02
2011-02-01-1700	2602.6	6.8	67.8	275.4	6.3	38.4	108.4	87.5	4.4	91.7	1.8	3.4	-803	190.5	0	02
2011-02-01-1800	2624.9	7	68.9	238.4	5.8	41.1	109.3	86.5	4.4	94.1	1.8	3.5	-723.5	205.5	0	02
2011-02-01-1900	2663.8	7.2	69.2	302.1	5.5	43.6	111.1	87.6	4.4	92.3	1.8	3.7	-789.1	204.2	0	02
2011-02-01-2000	2622.6	7.1	68.4	289	5.7	44.3	112.1	87.7	4.4	93.4	1.8	3.6	-713.7	256.7	0	02
2011-02-01-2100	2563.1	7	66.5	273.6	6	43.4	110.2	89.2	4.4	90.2	1.8	3.4	-687.2	282	0	02
2011-02-01-2200	2507.5	6.6	64.8	209.9	6.6	42.3	103.5	89.6	4.4	82.9	1.8	3	-751.7	205	0	02
2011-02-01-2300	2368.7	6.1	61.7	207	6	40.3	99.1	87.9	4.4	79.3	1.8	2.5	-830.1	182.7	0	02
2011-02-02-0000	2254.8	5.7	59.2	259.1	6.1	39.4	100.7	85.1	4.4	67.9	1.8	1.7	-1208.7	5.4	0	02
2011-02-02-0100	2176.4	5.4	57.5	224.2	5	38.8	96.9	81.1	4.4	58.5	1.8	1.6	-1101	62.2	0	02
2011-02-02-0200	2133.6	5.3	56.1	215.2	5.4	41	96.4	79.9	4.4	65.9	1.8	1.8	-950.7	105.5	0	02
2011-02-02-0300	2110	5.4	57.9	216.3	5.3	44.4	98.6	79.9	4.4	68.5	1.8	1.7	-899.7	151.2	0	02
2011-02-02-0400	2176.8	5.7	60.6	227	5.2	47	96.1	79.4	4.4	69.7	1.8	1.8	-955	156	0	02
2011-02-02-0500	2336.8	6.1	63.4	169.1	5	48.8	95.2	80.5	4.4	77.7	1.8	1.9	-1049.8	155.8	0	02
2011-02-02-0600	2567.8	7	68.1	194.7	5.6	52.8	96.9	83.3	4.4	88.2	1.8	2.4	-1133.3	155	0	02
2011-02-02-0700	2924.8	8.1	74.6	226.9	5.4	58.2	102.9	89.2	4.3	112.3	1.9	3.4	-1207.1	154.8	0	02
2011-02-02-0800	3226	9	81.8	238.4	5.4	64.2	113.3	99.3	4.3	124.3	1.9	4.5	-1232.2	149.9	0	02
2011-02-02-0900	3300.9	9	84.2	232.4	6	62.8	119.2	103.1	4.3	126.6	1.9	4.6	-1250.3	142.5	0	02
2011-02-02-1000	3382	9.3	84.9	235.4	6.4	63	121.8	105.2	4.3	133.4	1.9	4.8	-1295.4	137.9	0	02
2011-02-02-1100	3356	9.1	85.9	238.8	6.8	63.9	123.4	106.3	4.3	134.6	1.9	4.8	-1275.6	137.7	0	02
2011-02-02-1200	3363.5	9.1	86.2	239.7	6.6	62.9	123.4	106.9	4.3	136.2	2	4.8	-1235.3	138.5	0	02
2011-02-02-1300	3378.4	9	85.4	236.6	6.5	62.3	123.5	106.1	4.3	141.1	2	4.7	-1315.8	137.3	0	02
2011-02-02-1400	3340.1	8.9	85.3	232.6	7.3	60.8	125.9	104.4	4.3	142.4	2	4.7	-1293.7	137.4	0	02
2011-02-02-1500	3329	8.8	84.5	230.2	6.9	60.1	127.1	103.6	4.3	141.5	2	4.6	-1289.9	137.4	0	02
2011-02-02-1600	3260.3	8.7	83.9	232.4	7.1	60.1	125.4	102.5	4.3	139.7	2	4.5	-1250.9	138.6	0	02
2011-02-02-1700	3267.5	8.6	84.2	273.5	7.4	61.6	110.9	100.9	4.3	142.4	1.9	4.4	-1376.6	138.8	0	02
2011-02-02-1800	3385	9	85	325.2	7.4	64.4	112.4	102.1	4.3	138.9	1.9	4.6	-1384.8	180.4	0	02
2011-02-02-1900	3495.9	9.4	86.9	325.3	6.7	68.5	119	106.7	4.3	143.5	1.9	4.9	-1408.1	233.8	0	02
2011-02-02-2000	3498	9.4	87.8	340	6.3	69.5	122.9	108.5	4.3	146.4	1.9	4.9	-1405.7	260.1	0	02

LGE & KU - CORONA LOSS ESTIMATE

		VOLTAGE (kV)	MILES	CORONA PEAK LOSS FACTOR (MW Mile)	CORONA LOSSES (MW)	CORONA WINTER HOURS & LOSSES (MWH)	CORONA SUMMER HOURS & LOSSES (MWH)	CORONA TOTAL LOSSES (MWH)
A.	Fair Weather Corona Losses							
	LGE					5,832	2,928	
1		345	172	0.0032	0.549	3,204	1,609	4,813
2		161	116	0.0000	0.000	0	0	0
3		138	334	0.0000	0.000	0	0	0
4		69	289	0.0000	0.000	0	0	0
5	Subtotal		911		0.549	3,204	1,609	4,813
	KU					5,832	2,928	
6		500	57	0.0060	0.341	1,990	999	2,989
7		345	395	0.0032	1.265	7,375	3,703	11,078
8		161	518	0.0000	0.000	0	0	0
9		138	888	0.0000	0.000	0	0	0
10		69	2,218	0.0000	0.000	0	0	0
11	Subtotal		4,076		1.606	9,365	4,702	14,067
12	TOTAL		4,987		2.155	12,569	6,311	18,880
B.	Unmetered Station Use							
13	Estimated Unmetered Substation Use at				0.0010			

NOTE:
(1) Lines 5 and 11 loss results included in Schedules 3, 4, and 5.

LGE & KU

		Number of Miles		
	Voltage by Company	**LGE**	**KU**	**Total**
1	**LGE**			
2	Overhead			
3	345	171.7		
4	161	116.4		
5	138	329.6		
6	69	286.3		
7	Total Overhead	904.0		904.0
8				
9	Underground			
10	138	4.0		
11	69	2.9		
12	Total Underground	6.9		6.9
13				
14	**Total LGE**	910.9		910.9
15				
16	**KU**			
17	500		56.9	
18	345		395.2	
19	161		518.2	
20	138		887.6	
21	69		2,218.4	
22				
23	**Total KU**		4,076.3	4,076.3
24				
25				
26	**Total Pole Miles**	910.9	4,076.3	4,987.2

Appendix B

Results of KU
2010 Loss Analysis

KENTUCKY UTILITIES

EXHIBIT 1

SUMMARY OF COMPANY DATA

ANNUAL PEAK	4,354	MW
ANNUAL SYSTEM INPUT	23,358,179	MWH
ANNUAL SALES	22,015,243	MWH
SYSTEM LOSSES @ INPUT	1,342,936	or 5.75%
SYSTEM LOAD FACTOR	61.2%	

SUMMARY OF LOSSES - OUTPUT RESULTS

SERVICE	KV	--- MW ---	Input	% TOTAL	--- MWH ---	Input	% TOTAL
TRANS	500,345,138	138.9		44.78%	642,185		47.82%
	69		3.19%			2.75%	
PRIM SUBS	33,12,1	20.6		6.64%	102,336		7.62%
			0.47%			0.44%	
PRIMARY	33,12,1	91.5		29.49%	267,414		19.91%
			2.10%			1.14%	
SECONDARY	120/240,to,477	59.2		19.09%	331,001		24.65%
			1.36%			1.42%	
TOTAL		310.2		100.00%	1,342,936		100.00%
			7.12%			5.75%	

SUMMARY OF LOSS FACTORS

		CUMMULATIVE SALES EXPANSION FACTORS			
SERVICE	KV	DEMAND (Peak)		ENERGY (Annual)	
		d	1/d	e	1/e
TOT TRANS	500,345,138 69	1.03295	0.96810	1.02827	0.97251
PRIM SUBS	33,12,1	1.03883	0.96262	1.03382	0.96728
PRIMARY	33,12,1	1.06632	0.93781	1.05011	0.95228
SECONDARY	120/240,to,477	1.09017	0.91729	1.07651	0.92892

KENTUCKY UTILITIES 2010 LOSS ANALYSIS

EXHIBIT 2

SUMMARY OF CONDUCTOR INFORMATION

DESCRIPTION			CIRCUIT MILES	LOADING % RATING	MW LOSSES LOAD	MW LOSSES NO LOAD	MW LOSSES TOTAL	MWH LOSSES LOAD	MWH LOSSES NO LOAD	MWH LOSSES TOTAL
--- BULK -----------	500 KV	OR GREATER								
TIE LINES			0.0	0.00%	0.000	0.000	0.000	0	0	0
BULK TRANS			0.0	0.00%	0.000	0.000	0.000	0	0	0
SUBTOT			0.0		0.000	0.000	0.000	0	0	0
--- TRANS ---------	138 KV	TO	500.00 KV							
TIE LINES			0	0.00%	0.000	0.000	0.000	0	0	0
TRANS1	345 KV		0.0	0.00%	0.000	0.000	0.000	0	0	0
TRANS2	138 KV		0.0	0.00%	0.000	0.000	0.000	0	0	0
SUBTOT			0.0		0.000	0.000	0.000	0	0	0
--- SUBTRANS ------	35 KV	TO	138 KV							
TIE LINES			0	0.00%	0.000	0.000	0.000	0	0	0
SUBTRANS1	KV		0.0	0.00%	0.000	0.000	0.000	0	0	0
SUBTRANS2	KV		0.0	0.00%	0.000	0.000	0.000	0	0	0
SUBTRANS3	KV		0.0	0.00%	0.000	0.003	0.003	0	26	26
SUBTOT			0.0		0.000	0.003	0.003	0	26	26
PRIMARY LINES			16,372		80.472	4.246	84.718	230,573	37,193	267,766
SECONDARY LINES			3,708		4.160	0.000	4.160	11,528	0	11,528
SERVICES			7,637		9.210	1.131	10.341	29,961	9,910	39,872
TOTAL			27,717		93.843	5.380	99.223	272,062	47,130	319,192

KENTUCKY UTILITIES 2010 LOSS ANALYSIS

EXHIBIT 3

SUMMARY OF TRANSFORMER INFORMATION

DESCRIPTION		KV VOLTAGE	CAPACITY MVA	NUMBER TRANSFMR	AVERAGE SIZE	LOADING %	MVA LOAD	MW LOSSES LOAD	MW LOSSES NO LOAD	MW LOSSES TOTAL	MWH LOSSES LOAD	MWH LOSSES NO LOAD	MWH LOSSES TOTAL
BULK STEP-UP		500	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
BULK - BULK			0.0	0	0.0	0.00%	0	0	0.000	0.000	0	0	0
BULK - TRANS1		345	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
BULK - TRANS2		138	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS1 STEP-UP		345	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS1 - TRANS2		138	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS1-SUBTRANS1		69	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS1-SUBTRANS2		66	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS1-SUBTRANS3		35	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS2 STEP-UP		138	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS2-SUBTRANS1		69	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS2-SUBTRANS2		66	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS2-SUBTRANS3		35	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN1 STEP-UP		69	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN2 STEP-UP		66	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN3 STEP-UP		35	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN1-SUBTRAN2		66	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN1-SUBTRAN3		35	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN2-SUBTRAN3		35	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
						DISTRIBUTION SUBSTATIONS							
TRANS1 -	345	33	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS1 -	345	12	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS1 -	345	1	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS2 -	138	33	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
TRANS2 -	138	12	704.7	28	25.2	53.66%	378	0.878	0.836	1.715	3,041	6,042	9,083
TRANS2 -	138	1	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN1-	69	33	279.0	18	15.5	39.75%	111	0.226	0.301	0.527	784	2,257	3,041
SUBTRAN1-	69	12	4,973.6	374	13.3	55.44%	2,758	7.347	6.518	13.865	25,435	47,736	73,171
SUBTRAN1-	69	1	957.4	164	5.8	47.72%	457	1.412	1.610	3.022	4,888	12,550	17,439
SUBTRAN2-	66	33	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN2-	66	12	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN2-	66	1	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN3-	35	33	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN3-	35	12	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
SUBTRAN3-	35	1	0.0	0	0.0	0.00%	0	0.000	0.000	0.000	0	0	0
PRIMARY - PRIMARY			147.6	50	3.0	44.74%	66	0.198	0.200	0.398	686	1,750	2,437
LINE TRANSFRMR			9,359.1	229,808	40.7	31.58%	2,956	11.556	28.926	40.482	27,494	253,394	280,888
			==========	==========	==========	==========		==========	==========	==========	==========	=========	==========
TOTAL			16,421	230,442				21.617	38.391	60.008	62,328	323,729	386,058

KENTUCKY UTILITIES 2010 LOSS ANALYSIS

SUMMARY OF LOSSES DIAGRAM - DEMAND MODEL - SYSTEM PEAK 4354 MW

EXHIBIT 4 PAGE 1 of 2

BULK TIE LINES		
LOAD	0.00%	MW
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

BULK LINES		
LOADING	0.00%	
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

BULK STEP UP		
LOADING	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVG SIZE	0	MVA
NUMBER	0	

BULK-BULK		
LOADING	0.00%	
NO LOAD	0	MW
LOAD	0	MW
AVG SIZE	0	MVA
NUMBER	0	

TRANS TIE LINES		
LOAD	0.00%	MW
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

BULK-TRANS1 STEP DOWN		
LOADING	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVG SIZE	0	MVA
NUMBER	0	

TRAN1-TRAN2 STEP DOWN		
LOADING	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVG SIZE	0	MVA
NUMBER	0	

BULK-TRANS2 STEP DOWN		
LOADING	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVG SIZE	0	MVA
NUMBER	0	

TRANS 1&2 STEP UPS		
LDNG TR1SU	0.00%	
NOLOAD1&2	0.000	MW
LOAD 1&2	0.000	MW
AVSIZ TR1SU	0.0	MVA
NUMBER	0	

TRANS1	345.0	KV
LOADING	0.00%	
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

TRANS2	138.0	KV
LOADING	0.00%	
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

TRANS CUST		
SUBS	0.000	MW
	0.000	MVA
LINES		MW
		MVA

SUBTRANS TIE LINES		
LOAD	0.00%	MW
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

TRANS1&2-SUBTRANS1		
LDNG TR2-ST	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVSIZ TR2	0	MVA
NUMBER	0	

SUBTR1&2-SUBTRANS2&3		
LOADING	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVG SIZE	0	MVA
NUMBER	0	

TRANS1&2- SUBTRANS2		
LDNG TR2-ST	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVSIZ TR2-ST	0.00	MVA
NUMBER	0	

TRANS1&2-SUBTRANS3	
LDNG TR2-ST2	0.00%
NO LOAD	0.00
LOAD	0.00
AVSIZ TR2-ST2	0.00
NUMBER	0

SUBTRANS1,2,&3 STEP UPS		
LDNG ST1SU	0.00%	
NO LOAD	0.000	MW
LOAD	0.000	MW
AVSIZ ST2	0.0	MVA
NUMBER	0	

SUBTRANS1	69	KV
LOADING	0.00%	
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

SUBTRANS2	66	KV
LOADING	0.00%	
LOAD LOSS	0.000	MW
NOLD LOSS	0.000	MW

SUBTRANS2	35	KV
LOADING	0.00%	
LOAD LOSS	0.000	MW
NOLD LOSS	0.003	MW

SUBTRANS CUST	
SUBS - MW	0.000
MVA	0.000
LINES- MW	
MVA	

TO DISTRIBUTION SYSTEM
TOTAL 3703.4 MVA 3629.3 MW

	TRANS1	TRANS2	SUBTRANS1	SUBTRANS2	SUBTRANS3
MVA	0.0	378.1	3,325.3	0.0	0.0
%	0.00%	10.21%	89.79%	0.00%	0.00%
KV	345	138	69	66	35

KENTUCKY UTILITIES 2010 LOSS ANALYSIS

EXHIBIT 4 PAGE 2 of 2

FROM HIGH VOLTAGE SYSTEM

TOTAL 3,703 MVA 3,629 MW

TRANS1	0.0 MVA	0.00%	345 KV
TRANS2	378.1 MVA	10.21%	138 KV
SUBTRANS1	3,325.3 MVA	89.79%	69 KV
SUBTRANS2	0.0 MVA	0.00%	66 KV
SUBTRANS3	0.0 MVA	0.00%	35 KV

DISTRIBUTION SYSTEM LOAD

	PRIM1	PRIM2	PRIM3	PRIM1	PRIM2	PRIM3	PRIM1	PRIM2	PRIM3	PRIM1	PRIM2	PRIM3	PRIM1	PRIM2	PRIM3
VOLTAGE	33	12	1	33	12	1	33	12	1	33	12	1	33	12	1
LOAD MVA	0	0	0	0	378	0	111	2,758	457	0	0	0	0	0	0
% SYS TOT	0.00%	0.00%	0.00%	0.00%	10.21%	0.00%	2.99%	74.46%	12.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NOLD LOSS	0.000	0.000	0.000	0.000	0.836	0.000	0.301	6.518	1.610	0.000	0.000	0.000	0.000	0.000	0.000
LOAD LOSS	0.000	0.000	0.000	0.000	0.878	0.000	0.226	7.347	1.412	0.000	0.000	0.000	0.000	0.000	0.000
AVG SIZE	0.0	0.0	0.0	0.0	25.2	0.0	15.5	13.3	5.8	0.0	0.0	0.0	0.0	0.0	0.0
NUMBER	0	0	0	0	28	0	18	374	164	0	0	0	0	0	0
DIVERSITY RATIO	0.000	0.000	0.000	0.000	1.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000

PRIMARY LINES

LOADING	3538.386	MW
@ SYS PF	3610.598	MVA
LOAD LOSS	80.472	MW
NOLD LOSS	4.246	MW
TOT LOSS	84.718	MW

PRIM/PRIM TRANSF

LOADING	66.024	MW
NOLD LOSS	0.200	MW
LOAD LOSS	0.198	MW
AVG SIZE	2.95	
NUMBER	50	

PRIM CUST LOADS

NO LINES	0.000	MW
CUST SUB	0.000	MVA
NO LINES	71.500	MW
CO. SUB	72.959	MVA
PRIM WITH	750.000	MW
LINES	815.217	MVA

LINE TRANSFORMERS

LOADING	2703.270	MW	MVA	2996.392
NOLD LOSS	28.926	MW		
LOAD LOSS	11.556	MW		
AVG SIZE	40.7	KVA		
NUMBER	229808			

SECONDARY LINES

LOAD	851.123	MW
LOAD LOSS	4.160	MW
NOLD LOSS	0.000	MW
TOT LOSS	4.160	MW

NO SECONDARY LINES

LOAD 1811.665 MW

SERVICES

LOAD	2658.627	MW
LOAD LOSS	9.210	MW
NOLD LOSS	1.131	MW
TOT LOSS	10.341	MW

CUSTOMER SECONDARY LOAD

2648.286 MW

KENTUCKY UTILITIES 2010 LOSS ANALYSIS

EXHIBIT 5

SUMMARY of SALES and CALCULATED LOSSES

LOSS # AND LEVEL	MW LOAD	NO LOAD +	LOAD =	TOT LOSS	EXP FACTOR	CUM EXP FAC	MWH LOAD	NO LOAD +	LOAD =	TOT LOSS	EXP FACTOR	CUM EXP FAC
1 BULK XFMMR	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0	0
2 BULK LINES	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
3 TRANS1 XFMR	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
4 TRANS1 LINES	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
5 TRANS2TR1 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
6 TRANS GSU	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
7 TRANS2 LINES	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
TOTAL TRAN	4,354.0	7.58	131.32	138.90	1.032953	1.032953	23,358,179	59,557	582,628	642,185	1.0282702	1.0282702
8 STR1BLK SD												
9 STR1T1 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
10 SRT1T2 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
11 SUBTRANS1 LINES	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
12 STR2T1 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
13 STR2T2 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
14 STR2S1 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
15 SUBTRANS2 LINES	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
16 STR3T1 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
17 STR3T2 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
18 STR3S1 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
19 STR3S2 SD	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
20 SUBTRANS3 LINES	0.0	0.00	0.00	0.00	0.000000		0	0	0	0	0.0000000	
21 SUBTRANS TOTAL	0.0	0.00	0.00	0.00	0.000000		0	0	0	0	0.0000000	
22 TOT TRANS LOSS FAC	**4,354.0**	**7.58**	**131.32**	**138.90**	**1.032953**	**1.032953**	**23,358,179**	**59,557**	**582,628**	**642,185**	**1.028270**	**1.0282702**
DISTRIBUTION SUBST												
TRANS1	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
TRANS2	370.5	0.84	0.88	1.71	1.004649	0.000000	1,945,541	6,042	3,041	9,083	1.0046905	0.0000000
SUBTR1	3,258.8	8.43	8.99	17.41	1.005372	0.000000	17,111,051	62,543	31,107	93,650	1.0055032	0.0000000
SUBTR2	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
SUBTR3	0.0	0.00	0.00	0.00	0.000000	0.000000	0	0	0	0	0.0000000	0.0000000
WEIGHTED AVERAGE	3,629.3	9.26	9.86	19.13	1.005298	1.038426	19,056,592	68,585	34,148	102,733	1.0054202	1.0338436
PRIMARY INTRCHNGE	0.0				0.000000		0				0.0000000	
PRIMARY LINES	3,538.2	4.25	80.67	84.92	1.024590	1.063961	17,239,383	37,193	231,259	268,453	1.0158184	1.0501973
LINE TRANSF	2,703.3	28.93	11.56	40.48	1.015203	1.080136	13,498,846	253,394	27,494	280,888	1.0212504	1.0725145
SECONDARY	2,662.8	0.00	4.16	4.16	1.001565	1.081827	13,217,958	0	11,528	11,528	1.0008729	1.0734507
SERVICES	2,658.6	1.13	9.21	10.34	1.003905	1.086051	13,206,431	9,910	29,961	39,872	1.0030283	1.0767013
		==========	==========	==========				==========	==========	==========		
TOTAL SYSTEM		51.15	246.78	297.93				428,640	917,018	1,345,658		

KENTUCKY UTILITIES 2010 LOSS ANALYSIS

EXHIBIT 6

DEVELOPMENT of LOSS FACTORS
UNADJUSTED
DEMAND

LOSS FACTOR LEVEL	CUSTOMER SALES MW	CALC LOSS TO LEVEL	SALES MW @ GEN	CUM PEAK EXPANSION FACTORS	
	a	b	c	d	1/d
BULK LINES	0.0	0.0	0.0	0.00000	0.00000
TRANS SUBS	0.0	0.0	0.0	0.00000	0.00000
TRANS LINES	0.0	0.0	0.0	0.00000	0.00000
SUBTRANS SUBS	0.0	0.0	0.0	0.00000	0.00000
TOTAL TRANS	574.0	18.9	592.9	1.03295	0.96810
PRIM SUBS	71.5	2.7	74.2	1.03843	0.96300
PRIM LINES	750.0	48.0	798.0	1.06396	0.93988
SECONDARY	2,648.3	227.9	2,876.2	1.08605	0.92077
TOTALS	4,043.8	297.5	4,341.3		

DEVELOPMENT of LOSS FACTORS
UNADJUSTED
ENERGY

LOSS FACTOR LEVEL	CUSTOMER SALES MWH	CALC LOSS TO LEVEL	SALES MWH @ GEN	CUM ANNUAL EXPANSION FACTORS	
	a	b	c	d	1/d
BULK LINES	0	0	0	0.00000	0.00000
TRANS SUBS	0	0	0	0.00000	0.00000
TRANS LINES	0	0	0	0.00000	0.00000
SUBTRANS SUBS	0	0	0	0.00000	0.00000
TOTAL TRANS	3,663,030	103,554	3,766,584	1.02827	0.97251
PRIM SUBS	1,713,570	57,993	1,771,563	1.03384	0.96726
PRIM LINES	3,472,084	174,289	3,646,373	1.05020	0.95220
SECONDARY	13,166,559	1,009,893	14,176,452	1.07670	0.92876
TOTALS	22,015,243	1,345,730	23,360,973		

ESTIMATED VALUES AT GENERATION

LOSS FACTOR AT VOLTAGE LEVEL	MW	MWH
BULK LINES	0.00	0
TRANS SUBS	0.00	0
TRANS LINES	0.00	0
SUBTRANS SUBS	0.00	0
SUBTRANS LINES	592.91	3,766,584
PRIM SUBS	74.25	1,771,563
PRIM LINES	797.97	3,646,373
SECONDARY	2,876.17	14,176,452
SUBTOTAL	4,341.31	23,360,973
ACTUAL ENERGY	4,354.00	23,358,179
MISSMATCH	(12.69)	2,794
% MISSMATCH	-0.29%	0.01%

DEVELOPMENT of LOSS FACTORS
ADJUSTED
DEMAND

LOSS FACTOR LEVEL	CUSTOMER SALES MW	SALES ADJUST	CALC LOSS TO LEVEL	SALES MW @ GEN	CUM PEAK EXPANSION FACTORS	
	a	b	c	d	e	f=1/e
BULK LINES	0.0	0.0	0.0	0.0	0.00000	0.00000
TRANS SUBS	0.0	0.0	0.0	0.0	0.00000	0.00000
TRANS LINES	0.0	0.0	0.0	0.0	0.00000	0.00000
SUBTRANS SUBS	0.0	0.0	0.0	0.0	0.00000	0.00000
TOTAL TRANS	574.0	0.0	18.9	592.9	1.03295	0.96810
PRIM SUBS	71.5	0.0	2.8	74.3	1.03883	0.96262
PRIM LINES	750.0	0.0	49.7	799.7	1.06632	0.93781
SECONDARY	2,648.3	0.0	238.8	2,887.1	1.09017	0.91729
			310.2			
TOTALS	4,043.8	0.0	310.2	4,354.0		

DEVELOPMENT of LOSS FACTORS
ADJUSTED
ENERGY

LOSS FACTOR LEVEL	CUSTOMER SALES MWH	SALES ADJUST	CALC LOSS TO LEVEL	SALES MWH @ GEN	CUM ANNUAL EXPANSION FACTORS	
	a	b	c	d	e	f=1/e
BULK LINES	0	0	0	0	0.00000	0.00000
TRANS SUBS	0	0	0	0	0.00000	0.00000
TRANS LINES	0	0	0	0	0.00000	0.00000
SUBTRANS SUBS	0	0	0	0	0.00000	0.00000
TOTAL TRANS	3,663,030	0	103,554	3,766,584	1.02827	0.97251
PRIM SUBS	1,713,570	0	57,958	1,771,528	1.03382	0.96728
PRIM LINES	3,472,084	0	174,001	3,646,085	1.05011	0.95228
SECONDARY	13,166,559	0	1,007,420	14,173,979	1.07651	0.92892
			1,342,934			
TOTALS	22,015,243	0	1,342,936	23,358,177		

ESTIMATED VALUES AT GENERATION

LOSS FACTOR AT VOLTAGE LEVEL	MW	MWH
BULK LINES	0.00	0
TRANS SUBS	0.00	0
TRANS LINES	0.00	0
SUBTRANS SUBS	0.00	0
SUBTRANS LINES	592.91	3,766,584
PRIM SUBS	74.28	1,771,528
PRIM LINES	799.74	3,646,085
SECONDARY	2,887.07	14,173,979
	4,354.00	23,358,177
ACTUAL ENERGY	4,354.00	23,358,179
MISSMATCH	0.00	(2)
% MISSMATCH	0.00%	0.00%

Adjusted Losses and Loss Factors by Facility EXHIBIT 8

Unadjusted Losses by Segment

	MW	Unadjusted	MWH	Unadjusted
Service Drop Losses	10.34	10.31	39,872	39,876
Secondary Losses	4.16	4.15	11,528	11,529
Line Transformer Losses	40.48	40.38	280,888	280,916
Primary Line Losses	84.92	84.70	268,453	268,480
Distribution Substation Losses	19.13	19.08	102,733	102,744
Transmission System Losses	138.90	138.90	642,185	642,185
Total	297.93	297.52	1,345,658	1,345,730

Mismatch Allocation by Segment

	MW	MWH
Service Drop Losses	-0.83	158
Secondary Losses	-0.33	46
Line Transformer Losses	-3.23	1,116
Primary Line Losses	-6.78	1,066
Distribution Substation Losses	-1.53	408
Transmission System Losses	0.00	0
Total	-12.69	2,794

Adjusted Losses by Segment

	MW	% of Total	MWH	% of Total
Service Drop Losses	11.14	3.6%	39,718	3.0%
Secondary Losses	4.48	1.4%	11,483	0.9%
Line Transformer Losses	43.61	14.1%	279,800	20.8%
Primary Line Losses	91.48	29.5%	267,414	19.9%
Distribution Substation Losses	20.61	6.6%	102,336	7.6%
Transmission System Losses	138.90	44.8%	642,185	47.8%
Total	310.21	100.0%	1,342,936	100.0%

Loss Factors by Segment	**MW**	**MWH**	
Retail Sales from Service Drops	2,648.286	13,166,559	
Adjusted Service Drop Losses	11.140	39,718	
Input to Service Drops	2,659.426	13,206,277	
Service Drop Loss Factor	**1.00421**	**1.00302**	
Output from Secondary	2,659.426	13,206,277	
Adjusted Secondary Losses	4.482	11,483	
Input to Secondary	2,663.908	13,217,760	
Secondary Conductor Loss Factor	**1.00169**	**1.00087**	
Output from Line Transformers	2,663.908	13,217,760	
Adjusted Line Transformer Losses	43.609	279,800	
Input to Line Transformers	2,707.517	13,497,560	
Line Transformer Loss Factor	**1.01637**	**1.02117**	
Retail Sales from Primary	750.000	3,472,084	
Req. Whls Sales from Primary	0.000	0	
Input to Line Transformers	2,707.517	13,497,560	
Output from Primary Lines	3,457.517	16,969,644	
Adjusted Primary Line Losses	91.477	267,414	
Input to Primary Lines	3,548.994	17,237,058	
Primary Line Loss Factor	**1.02646**	**1.01576**	
Output Pl from Distribution Substations	3,548.994	17,237,058	
Req. Whls Sales from Substations	0.000	0	
Retail Sales from Substations	71.500	1,713,570	
TotalOutput from Distribution Substations	3,620.494	18,950,628	
Adjusted Distribution Substation Losses	20.606	102,336	
Input to Distribution Substations	3,641.100	19,052,964	
Distribution Substation Loss Factor	**1.00569**	**1.00540**	
Retail Sales at from SubTransmission	574.000	3,663,030	
Req. Whls Sales from SubTransmission	0.000	0	
Non-Req. Whls Sales from SubTransmission	0.000	0	
Losses	0.000	0	4457
Input to Distribution Substations	3,641.100	19,052,964	
Output from SubTransmission	4,215.100	22,715,994	4,354.000
SubTransmission System Losses	138.900	642,185	138.900
Input to Transmission	4,354.000	23,358,179	138.900
TotTransmission System Loss Factor	**1.03295**	**1.02827**	138.900

DEMAND MW **SUMMARY OF LOSSES AND LOSS FACTORS BY DELIVERY VOLTAGE** **EXHIBIT 9**
PAGE 1 of 2

	SERVICE LEVEL		SALES MW	LOSSES	SECONDARY	PRIMARY	SUBSTATION	SUBTRANS	TRANSMISSION
1	**SERVICES**								
2	SALES		2,648.3		2,648.3				
3	LOSSES			11.1	11.1				
4	INPUT				2,659.4				
5	**EXPANSION FACTOR**	**1.00421**							
6	**SECONDARY**								
7	SALES								
8	LOSSES			4.5	4.5				
9	INPUT				2,663.9				
10	**EXPANSION FACTOR**	**1.00169**							
11	**LINE TRANSFORMER**								
12	SALES								
13	LOSSES			43.6	43.6				
14	INPUT				2,707.5				
15	**EXPANSION FACTOR**	**1.01637**							
16	**PRIMARY**								
17	SECONDARY				2,707.5				
18	SALES		750.0			750.0			
19	LOSSES			91.5	71.6	19.8			
20	INPUT				2,779.2	769.8			
21	**EXPANSION FACTOR**	**1.02646**							
22	**SUBSTATION**								
23	PRIMARY				2,779.2	769.8			
24	SALES		71.5				71.5		
25	LOSSES			20.6	15.8	4.4	0.4		
26	INPUT				2,795.0	774.2	71.9		
27	**EXPANSION FACTOR**	**1.00569**							
28	**SUB-TRANSMISSION**								
29	DISTRIBUTION SUBS								
30	SALES								
31	LOSSES								
32	INPUT								
33	**EXPANSION FACTOR**								
34	**TRANSMISSION**								
35	SUBTRANSMISSION								
36	DISTRIBUTION SUBS				2,795.0	774.2	71.9		
37	SALES		574.0						574.0
38	LOSSES			138.9	92.1	25.5	2.4		18.9
39	INPUT				2,887.1	799.7	74.3		592.9
40	**EXPANSION FACTOR**	**1.03295**							
41	**TOTALS** LOSSES			310.2	238.8	49.7	2.8		18.9
42	% OF TOTAL			100%	76.97%	16.03%	0.90%		6.10%
43	SALES		4,043.8		2,648.3	750.0	71.5		574.0
44	% OF TOTAL		100.00%		65.49%	18.55%	1.77%		14.19%
45	INPUT		4,354.0		2,887.1	799.7	74.3		592.9
46	**CUMMULATIVE EXPANSION LOSS FACTORS** (from meter to system input)				**1.09017**	**1.06632**	**1.03883**		**1.03295**

ENERGY MWH — **SUMMARY OF LOSSES AND LOSS FACTORS BY DELIVERY VOLTAGE** — **EXHIBIT 9**
PAGE 2 of 2

	SERVICE LEVEL		SALES	LOSSES	SECONDARY	PRIMARY	SUBSTATION	SUBTRANS	TRANSMISSION
1	**SERVICES**								
2	SALES		13,166,559		13,166,559				
3	LOSSES			39,718	39,718				
4	INPUT				13,206,277				
5	**EXPANSION FACTOR**	**1.00302**							
6	**SECONDARY**								
7	SALES								
8	LOSSES			11,483	11,483				
9	INPUT				13,217,760				
10	**EXPANSION FACTOR**	**1.00087**							
11	**LINE TRANSFORMER**								
12	SALES								
13	LOSSES			279,800	279,800				
14	INPUT				13,497,560				
15	**EXPANSION FACTOR**	**1.02117**							
16	**PRIMARY**								
17	SECONDARY				13,497,560				
18	SALES		3,472,084.000			3,472,084			
19	LOSSES			267,414	212,699	54,714			
20	INPUT				13,710,259	3,526,798			
21	**EXPANSION FACTOR**	**1.01576**							
22	**SUBSTATION**								
23	PRIMARY				13,710,259	3,526,798			
24	SALES		1,713,570				1,713,570		
25	LOSSES			102,336	74,037	19,045	9,253		
26	INPUT				13,784,297	3,545,844	1,722,823		
27	**EXPANSION FACTOR**	**1.00540**							
28	**SUB-TRANSMISSION**								
29	DISTRIBUTION SUBS								
30	SALES								
31	LOSSES								
32	INPUT								
33	**EXPANSION FACTOR**								
34	**TRANSMISSION**								
35	SUBTRANSMISSION								
36	DISTRIBUTION SUBS				13,784,297	3,545,844	1,722,823		
37	SALES		3,663,030						3,663,030
38	LOSSES			642,185	389,684	100,242	48,705		103,554
39	INPUT				14,173,981	3,646,085	1,771,528		3,766,584
40	**EXPANSION FACTOR**	**1.02827**							
41	**TOTALS** LOSSES			1,342,936	1,007,422	174,001	57,958		103,554
42	% OF TOTAL			100%	75.02%	12.96%	4.32%		7.71%
43	SALES		22,015,243		13,166,559	3,472,084	1,713,570		3,663,030
44	% OF TOTAL		100.00%		59.81%	15.77%	7.78%		16.64%
45	INPUT		23,358,179		14,173,981	3,646,085	1,771,528		3,766,584
46	**CUMMULATIVE EXPANSION LOSS FACTORS** (from meter to system input)				**1.07651**	**1.05011**	**1.03382**		**1.02827**

Appendix C

Discussion of Hoebel Coefficient

COMMENTS ON THE HOEBEL COEFFICIENT

The Hoebel coefficient represents an established industry standard relationship between peak losses and average losses and is used in a loss study to estimate energy losses from peak demand losses. H. F. Hoebel described this relationship in his article, "Cost of Electric Distribution Losses," Electric Light and Power, March 15, 1959. A copy of this article is attached.

Within any loss evaluation study, peak demand losses can readily be calculated given equipment resistance and approximate loading. Energy losses, however, are much more difficult to determine given their time-varying nature. This difficulty can be reduced by the use of an equation which relates peak load losses (demand) to average losses (energy). Once the relationship between peak and average losses is known, average losses can be estimated from the known peak load losses.

Within the electric utility industry, the relationship between peak and average losses is known as the loss factor. For definitional purposes, loss factor is the ratio of the average power loss to the peak load power loss, during a specified period of time. This relationship is expressed mathematically as follows:

(1) $F_{LS}\ .\ A_{LS}\ )\ P_{LS}$

where: F_{LS} = Loss Factor
A_{LS} = Average Losses
P_{LS} = Peak Losses

The loss factor provides an estimate of the degree to which the load loss is maintained throughout the period in which the loss is being considered. In other words, loss factor is the ratio of the actual kWh losses incurred to the kWh losses which would have occurred if full load had continued throughout the period under study.

Examining the loss factor expression in light of a similar expression for load factor indicates a high degree of similarity. The mathematical expression for load factor is as follows:

(2) $F_{LD}\ .\ A_{LD}\ )\ P_{LD}$

where: F_{LD} = Load Factor
A_{LD} = Average Load
P_{LD} = Peak Load

This load factor result provides an estimate of the degree to which the load loss is maintained throughout the period in which the load is being considered. Because of the similarities in definition, the loss factor is sometimes called the "load factor of losses." While the definitions are similar, a strict equating of the two factors cannot be made. There does exist, however, a relationship between these two factors which is dependent upon the shape of the load duration curve. Since resistive losses vary as the square of the load, it can be shown mathematically that the loss factor can vary between the extreme limits of load factor and load factor squared. The relationship between load factor and loss factor has become an industry standard and is as follows:

$$(3)\ \ F_{LS}\ .\ H*F_{LD}^2 + (1-H)*F_{LD}$$

where: F_{LS} = Loss Factor
F_{LD} = Load Factor
H = Hoebel Coeff

As noted in the attached article, the suggested value for H (the Hoebel coefficient) is 0.7. The exact value of H will vary as a function of the shape of the utility's load duration curve. In recent years, values of H have been computed directly for a number of utilities based on EEI load data. It appears on this basis, the suggested value of 0.7 should be considered a lower bound and that values approaching unity may be considered a reasonable upper bound. Based on experience, values of H have ranged from approximately 0.85 to 0.95. The standard default value of 0.9 is generally used.

Inserting the Hoebel coefficient estimate gives the following loss factor relationship using Equation (3):

$$(4)\ \ F_{LS}\ .\ 0.90*F_{LD}^2 + 0.10*F_{LD}$$

Once the Hoebel constant has been estimated and the load factor and peak losses associated with a piece of equipment have been estimated, one can calculate the average, or energy losses as follows:

$$(5)\ \ A_{LS}\ .\ P_{LS} * [H*F_{LD}^2 + (1-H)*F_{LD}]$$

where: A_{LS} = Average Losses
P_{LS} = Peak Losses
H = Hoebel Coefficient
F_{LD} = Load Factor

Loss studies use this equation to calculate energy losses at each major voltage level in the analysis.

From: Hilton, Tim
To: Whitehouse, Jonathan
Cc: Brennan, Paul
Subject: Re: Meter life
Date: Wednesday, March 16, 2016 8:40:31 AM

---

20 years.

Sent from my iPad

On Mar 16, 2016, at 8:20 AM, Whitehouse, Jonathan <Jonathan.Whitehouse@lge-ku.com> wrote:

> Paul/Tim,
>
> What is the expected life of the RF Focus AXe meters? Thanks.
>
> **Jonathan Whitehouse** | Advanced Metering Systems Engineer
> **LG&E and KU Energy LLC** | 220 West Main Street | Louisville, KY 40202
> Office. 502.627.3504 | Fax. 502.217.4832 | www.lge-ku.com
>
> ---
>
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KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 17

Responding Witness: Christopher M. Garrett

Q.1-17. Please provide a quantification of the revenue requirement included for the AMS initiative in the test year, including all rate base/capitalization components and all operating expenses on a total Company and jurisdictional basis. The quantification should include all reductions in rate base/capitalization and operating expenses from savings due to the proposed transition to AMS. Provide all assumptions, data, and calculations.

A.1-17. See attached for an estimate of the AMS revenue requirement for the test year.

2017 Business Plan
LG&E and KU Key Business Unit Projects
Dollars in 000's

Project	Capital Including 108					Test Year Ended June 30, 2018			
	Total Project	2017-2021	Through TYE 6/30/18	Avg. Capital TYE 6/30/18	Avg. Def. Tax Bal. TYE 6/30/18	Cost of Capital	Depreciation	O&M	Total Rev. Reqts.
Advanced Metering Systems (AMS)	$ 319,610	$ 319,610	$ 120,220	$ 52,481	$ 3,668	$ 5,200	$ 1,352	$ 6,703	$ 13,255

2017 Business Plan
LG&E Key Business Unit Projects
Dollars in 000's

Project	Capital Including 108					Test Year Ended June 30, 2018			
	Total Project	2017-2021	Through TYE 6/30/18	Avg. Capital TYE 6/30/18	Avg. Def. Tax Bal. TYE 6/30/18	Cost of Capital	Depreciation	O&M	Total LGE Rev. Reqts.
Advanced Metering Systems (AMS)	$ 159,805	$ 159,805	$ 60,110	$ 26,241	$ 1,834	$ 2,633	$ 676	$ 3,352	$ 6,660

Total Elec. $ 5,343

Total Gas $ 1,317

Elec. Split	Elec. Cap/Dep	Elec. O&M
0.7	$ 2,316	$ 3,027

Gas Split	Gas Cap/Dep	Gas O&M
0.3	$ 993	$ 324

2017 Business Plan
KU Key Business Unit Projects
Dollars in 000's

Project	Capital Including 108					Test Year Ended June 30, 2018			
	Total Project	2017-2021	Through TYE 6/30/18	Avg. Capital TYE 6/30/18	Avg. Def. Tax Bal. TYE 6/30/18	Cost of Capital	Depreciation	O&M	Total KU Rev. Reqts.
Advanced Metering Systems (AMS)	$ 159,805	$ 159,805	$ 60,110	$ 26,241	$ 1,834	$ 2,567	$ 676	$ 3,352	$ 6,595
							KU KY Juris. Cap & Depr.	KU KY Juris. O&M	KU KY Juris. $ 6,066
							$ 2,895	$ 3,171	
							KU Juris. Cap. 89.28%		

2017 Business Plan
LG&E and KU Key Business Unit Projects
Dollars in 000's

CS Projects

LG&E

Project	Test Year Ended June 30, 2018 O&M	Total Rev. Reqts.		Electric	Gas
Advanced Metering Systems (AMS)	$ 3,351	$ 3,351		3,027	324

AMS by FERC Account :	3351.49252	Electric	Gas	Electric	Gas
F586-METER EXPENSE	1167.42148	100%		1,167	-
F597-MTCE OF METERS	1427.89998	100%		1,428	-
F878-METER AND HOUSE REGULATOR EXPENSE	6.45402		100%	-	6
F893-MTCE OF METERS AND HOUSE REGULATORS	15.19902		100%	-	15
F903-CUSTOMER RECORDS AND COLLECTION EXPENSES	640.77306	56%	44%	359	282
F910-MISC CUSTOMER SERVICE AND INFORMATION EXPENSE	93.74496	78%	22%	73	21

Key Business Unit Projects
Plant In-Service Amounts by Project
Cumulative In-Service

	6/30/17	7/31/17	8/31/17	9/30/17	10/31/17	11/30/17	12/31/17	1/31/18	2/28/18	3/31/18	4/30/18	5/31/18	6/30/18	13 Month Average
LG&E Projects														
Advanced Metering Systems	$ -	$ -	$ -	$ -	$ 3,240	$ 6,480	$ 9,720	$ 13,409	$ 17,098	$ 20,787	$ 24,476	$ 28,165	$ 31,854	$ 11,941
KU Projects														
Advanced Metering Systems	$ -	$ -	$ -	$ -	$ 3,240	$ 6,480	$ 9,720	$ 13,409	$ 17,098	$ 20,787	$ 24,476	$ 28,165	$ 31,854	$ 11,941
Total LG&E and KU														
Advanced Metering Systems	$ -	$ -	$ -	$ -	$ 6,480	$ 12,960	$ 19,440	$ 26,818	$ 34,196	$ 41,574	$ 48,952	$ 56,330	$ 63,708	$ 23,881

Key Business Unit Projects
Plant In-Service Amounts by Project
Cumulative In-Service

Plant In Service		6/30/17	7/31/17	8/31/17	9/30/17	10/31/17	11/30/17	12/31/17	1/31/18	2/28/18	3/31/18	4/30/18	5/31/18	6/30/18	13 Month Average
LG&E Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 3,240	$ 6,480	$ 9,720	$ 13,409	$ 17,098	$ 20,787	$ 24,476	$ 28,165	$ 31,854	$ 11,941
Book Depreciation															
LG&E Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 676
Tax Depreciation															
LG&E Projects	MACRS														
Advanced Metering Systems	10	$ -	$ -	$ -	$ -	$ 1,674	$ 1,755	$ 1,917	$ 1,011	$ 1,029	$ 1,052	$ 1,083	$ 1,129	$ 1,221	$ 913
Book/Tax Difference															
LG&E Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 1,599	$ 1,680	$ 1,842	$ 935	$ 954	$ 977	$ 1,008	$ 1,054	$ 1,146	$ 861
Deferred Tax Expense															
LG&E Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 622	$ 653	$ 716	$ 364	$ 371	$ 380	$ 392	$ 410	$ 446	$ 335

Accumulated Deferred Taxes	6/30/17	7/31/17	8/31/17	9/30/17	10/31/17	11/30/17	12/31/17	1/31/18	2/28/18	3/31/18	4/30/18	5/31/18	6/30/18	13 Month Average
LG&E Projects														
Advanced Metering Systems	$ -	$ -	$ -	$ -	$ 622	$ 1,275	$ 1,992	$ 2,356	$ 2,727	$ 3,107	$ 3,499	$ 3,909	$ 4,355	$ 1,834

Key Business Unit Projects
Plant In-Service Amounts by Project
Cumulative In-Service

Plant In Service

		6/30/17	7/31/17	8/31/17	9/30/17	10/31/17	11/30/17	12/31/17	1/31/18	2/28/18	3/31/18	4/30/18	5/31/18	6/30/18	13 Month Average
KU Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 3,240	$ 6,480	$ 9,720	$ 13,409	$ 17,098	$ 20,787	$ 24,476	$ 28,165	$ 31,854	$ 11,941

Book Depreciation

KU Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 75	$ 676

Tax Depreciation

KU Projects	MACRS														
Advanced Metering Systems	10	$ -	$ -	$ -	$ -	$ 1,674	$ 1,755	$ 1,917	$ 1,011	$ 1,029	$ 1,052	$ 1,083	$ 1,129	$ 1,221	$ 913

Book/Tax Difference

KU Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 1,599	$ 1,680	$ 1,842	$ 935	$ 954	$ 977	$ 1,008	$ 1,054	$ 1,146	$ 861

Deferred Tax Expense

KU Projects															
Advanced Metering Systems		$ -	$ -	$ -	$ -	$ 622	$ 653	$ 716	$ 364	$ 371	$ 380	$ 392	$ 410	$ 446	$ 335

Accumulated Deferred Taxes

	6/30/17	7/31/17	8/31/17	9/30/17	10/31/17	11/30/17	12/31/17	1/31/18	2/28/18	3/31/18	4/30/18	5/31/18	6/30/18	13 Month Average
KU Projects														
Advanced Metering Systems	$ -	$ -	$ -	$ -	$ 622	$ 1,275	$ 1,992	$ 2,356	$ 2,727	$ 3,107	$ 3,499	$ 3,909	$ 4,355	$ 1,834

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 18

Responding Witness: Gregory J. Meiman

Q.1-18. Please provide the incentive compensation expense for (a) 2015, (b) 2016, (c) the base year, and (U) the test year by incentive compensation plan and by goal or target for each plan. This includes incentive compensation expense incurred directly by the Company and the expense assigned and allocated to the Company from the Service Company.

A.1-18. The Company has one incentive compensation plan, the Team Incentive Award (TIA) that is charged to KU and included in its revenue requirement. The incentive measures are re-evaluated annually. However, for the sake of completeness, the table below assumes the measures and weightings used for 2017 will apply in 2018 as well for purposes of categorizing the TIA for the forecast test year. See the response to AG 1-210 for a copy of the plan.

	2015	**2016**	**Base Period**	**Test Period**
Total Team Incentive Award				
Net Income	7,297,430	3,699,077	2,817,851	-
Cost Control	-	-	223,285	1,598,010
Customer Reliability	-	-	223,285	1,598,010
Customer Satisfaction	1,991,230	2,016,612	1,843,437	1,598,010
Corporate Safety	-	1,896,143	1,733,313	1,598,010
Individual / Team Effectiveness	4,496,779	4,689,796	4,287,063	5,113,633
Total	13,785,439	12,301,629	11,128,234	11,505,675

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 19

Responding Witness: Gregory J. Meiman

Q.1-19. Please provide a copy of each incentive compensation plan.

A.1-19. See the response to AG 1-210.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 20

Responding Witness: Christopher M. Garrett

Q.1-20. Please provide a schedule showing the actual amount of property taxes paid by the Company during 2016 to each taxing authority and in total.

A.1-20. The Company paid $26,570,609 in property tax in 2016. See attached.

Kentucky Utilities Company
Property Tax Payment History
For payments between 01/01/2016 and 12/31/2016

Payee Description	State	Assessment Year	Date	Amount
CITY OF LIVERMORE	KY	2014	1/15/2016	1,931.74
SHERIFF OF MONTGOMERY COUNTY	KY	2014	1/15/2016	108,204.51
CITY OF BARDSTOWN KY	KY	2015	1/18/2016	1,193.85
CITY OF EMINENCE-KU	KY	2015	1/18/2016	3,190.76
CITY OF GEORGETOWN	KY	2015	1/18/2016	7,977.81
CITY OF HARRODSBURG	KY	2015	1/18/2016	4,089.03
CITY OF LAWRENCEBURG	KY	2015	1/18/2016	13,486.22
CITY OF LIBERTY	KY	2015	1/18/2016	3,140.90
CITY OF MIDWAY	KY	2015	1/18/2016	2,642.45
CITY OF NEW CASTLE	KY	2015	1/18/2016	373.81
CITY OF SPRINGFIELD	KY	2015	1/18/2016	2,882.62
CITY OF VERSAILLES	KY	2015	1/18/2016	1,936.90
SHERIFF OF ANDERSON COUNTY	KY	2015	1/18/2016	75,159.01
SHERIFF OF BARREN COUNTY	KY	2015	1/18/2016	17,530.08
SHERIFF OF BATH COUNTY	KY	2015	1/18/2016	48,752.51
SHERIFF OF BRECKINRIDGE COUNTY	KY	2015	1/18/2016	81,438.83
SHERIFF OF BULLITT COUNTY	KY	2015	1/18/2016	12,123.45
SHERIFF OF BUTLER COUNTY	KY	2015	1/18/2016	2,285.38
SHERIFF OF CAMPBELL COUNTY	KY	2015	1/18/2016	13,658.26
SHERIFF OF CASEY COUNTY	KY	2015	1/18/2016	22,912.69
SHERIFF OF CLARK COUNTY	KY	2015	1/18/2016	159,495.08
SHERIFF OF CLAY COUNTY	KY	2015	1/18/2016	36,859.35
SHERIFF OF FRANKLIN COUNTY	KY	2015	1/18/2016	130,787.90
SHERIFF OF GARRARD COUNTY	KY	2015	1/18/2016	201,703.59
SHERIFF OF TRIMBLE COUNTY	KY	2015	1/18/2016	543,438.83
SHERIFF OF WOODFORD COUNTY	KY	2015	1/18/2016	251,246.20
SHERIFF OF GRAYSON COUNTY	KY	2015	1/19/2016	53,252.70
SHERIFF OF GREEN COUNTY	KY	2015	1/19/2016	17,255.57
SHERIFF OF HARRISON COUNTY	KY	2015	1/19/2016	56,148.76
SHERIFF OF HENDERSON COUNTY	KY	2015	1/19/2016	48,931.42
SHERIFF OF LARUE COUNTY	KY	2015	1/19/2016	86,817.82
SHERIFF OF LESLIE COUNTY	KY	2015	1/19/2016	6,217.85
SHERIFF OF LYON COUNTY	KY	2015	1/19/2016	60,636.57
SHERIFF OF MARION COUNTY	KY	2015	1/19/2016	96,630.26
SHERIFF OF MCLEAN COUNTY	KY	2015	1/19/2016	43,927.87
SHERIFF OF MERCER COUNTY	KY	2015	1/19/2016	770,012.28
SHERIFF OF NICHOLAS COUNTY	KY	2015	1/19/2016	30,912.79
SHERIFF OF OLDHAM COUNTY	KY	2015	1/19/2016	126,111.95
SHERIFF OF OWEN COUNTY	KY	2015	1/19/2016	86,155.97
SHERIFF OF PENDLETON COUNTY	KY	2015	1/19/2016	34,551.25
SHERIFF OF SCOTT COUNTY	KY	2015	1/19/2016	234,037.28
SHERIFF OF SPENCER COUNTY	KY	2015	1/19/2016	43,440.94
SHERIFF OF UNION COUNTY	KY	2015	1/19/2016	140,261.95
SHERIFF OF WASHINGTON COUNTY	KY	2015	1/19/2016	57,087.29
SHERIFF OF WEBSTER COUNTY	KY	2015	1/19/2016	53,207.04
BARDSTOWN INDEPENDENT SCHOOL DIS	KY	2015	1/26/2016	5,394.68
CITY OF BEATTYVILLE	KY	2015	1/26/2016	2,524.28
CITY OF BEREA	KY	2015	1/26/2016	396.71
CITY OF CARLISLE	KY	2015	1/26/2016	1,096.86
CITY OF CARROLLTON	KY	2015	1/26/2016	10,738.76

Kentucky Utilities Company
Property Tax Payment History
For payments between 01/01/2016 and 12/31/2016

Payee Description	State	Assessment Year	Date	Amount
CITY OF CAVE CITY	KY	2015	1/26/2016	1,482.77
CITY OF CLINTON	KY	2015	1/26/2016	2,526.78
CITY OF CUMBERLAND	KY	2015	1/26/2016	4,673.01
CITY OF DIXON	KY	2015	1/26/2016	787.45
CITY OF ELIZABETHTOWN	KY	2015	1/26/2016	16,263.72
CITY OF LAGRANGE	KY	2015	1/26/2016	3,017.14
CITY OF LIVERMORE	KY	2015	1/26/2016	1,388.00
CITY OF LONDON	KY	2015	1/26/2016	7,076.60
CITY OF MANCHESTER	KY	2015	1/26/2016	4,609.54
CITY OF MT OLIVET	KY	2015	1/26/2016	621.21
CITY OF MUNFORDVILLE	KY	2015	1/26/2016	2,845.32
CITY OF PROVIDENCE	KY	2015	1/26/2016	3,682.52
CITY OF RADCLIFF	KY	2015	1/26/2016	9,249.57
CITY OF RAVENNA	KY	2015	1/26/2016	2,593.89
CITY OF RICHMOND	KY	2015	1/26/2016	27,410.59
CITY OF SALT LICK	KY	2015	1/26/2016	376.34
CITY OF SEBREE	KY	2015	1/26/2016	3,214.89
CITY OF SHARPSBURG	KY	2015	1/26/2016	557.59
CITY OF SHELBYVILLE	KY	2015	1/26/2016	20,746.05
CITY OF WARSAW	KY	2015	1/26/2016	725.93
SHERIFF OF ADAIR COUNTY	KY	2015	1/26/2016	37,623.05
SHERIFF OF BALLARD COUNTY	KY	2015	1/26/2016	51,170.66
SHERIFF OF BELL COUNTY	KY	2015	1/26/2016	351,593.10
SHERIFF OF CARLISLE COUNTY	KY	2015	1/26/2016	7,665.58
SHERIFF OF CARROLL COUNTY	KY	2015	1/26/2016	787,038.59
SHERIFF OF EDMONSON COUNTY	KY	2015	1/26/2016	2,984.81
SHERIFF OF GRANT COUNTY	KY	2015	1/26/2016	7,658.55
SHERIFF OF HART COUNTY	KY	2015	1/26/2016	75,641.64
SHERIFF OF HICKMAN COUNTY	KY	2015	1/26/2016	17,205.21
SHERIFF OF LEE COUNTY	KY	2015	1/26/2016	21,556.52
SHERIFF OF MCCREARY COUNTY	KY	2015	1/26/2016	26,711.92
SHERIFF OF MUHLENBERG COUNTY	KY	2015	1/26/2016	269,168.00
SHERIFF OF OHIO COUNTY	KY	2015	1/26/2016	66,600.44
SHERIFF OF ROBERTSON COUNTY	KY	2015	1/26/2016	13,685.93
SHERIFF OF SHELBY COUNTY	KY	2015	1/26/2016	584,381.69
TAX COLLECTOR WICKLIFFE	KY	2015	1/26/2016	2,506.75
Trustee of Clairborne County (Tennessee)	KY	2015	1/29/2016	3,402.00
TAX COLLECTOR WILLIAMSBURG IND S	KY	2015	1/26/2016	12,760.20
TAX COLLECTOR LYNCH	KY	2014	2/4/2016	1,334.67
BOARD OF EDUCATION BURGIN INDPT	KY	2015	2/4/2016	58,917.67
CITY OF BEAVER DAM	KY	2015	2/4/2016	4,385.12
CITY OF BLOOMFIELD	KY	2015	2/4/2016	1,535.81
CITY OF CALHOUN	KY	2015	2/4/2016	885.87
CITY OF CAMPBELLSBURG	KY	2015	2/4/2016	649.52
CITY OF CANEYVILLE	KY	2015	2/4/2016	978.19
CITY OF CENTRAL CITY	KY	2015	2/4/2016	9,512.63
CITY OF CORYDON	KY	2015	2/4/2016	804.57
CITY OF EDDYVILLE	KY	2015	2/4/2016	11,311.66
CITY OF EVARTS	KY	2015	2/4/2016	2,924.50
CITY OF FRANKFORT	KY	2015	2/4/2016	5,402.87

Kentucky Utilities Company
Property Tax Payment History
For payments between 01/01/2016 and 12/31/2016

Payee Description	State	Assessment Year	Date	Amount
CITY OF GREENVILLE	KY	2015	2/4/2016	14,444.28
CITY OF HENDERSON	KY	2015	2/4/2016	10,748.95
CITY OF HORSE CAVE	KY	2015	2/4/2016	4,378.10
CITY OF IRVINE	KY	2015	2/4/2016	8,055.01
CITY OF LA CENTER	KY	2015	2/4/2016	3,083.59
CITY OF LEITCHFIELD	KY	2015	2/4/2016	5,686.46
CITY OF MAYSVILLE	KY	2015	2/4/2016	4,458.98
CITY OF MORGANFIELD	KY	2015	2/4/2016	47,092.04
CITY OF NICHOLASVILLE	KY	2015	2/4/2016	3,946.69
CITY OF OWINGSVILLE	KY	2015	2/4/2016	2,104.29
CITY OF POWDERLY	KY	2015	2/4/2016	1,166.03
CITY OF SADIEVILLE	KY	2015	2/4/2016	299.27
CITY OF WILLIAMSBURG	KY	2015	2/4/2016	7,553.60
CITY OF WINCHESTER	KY	2015	2/4/2016	14,355.38
SHERIFF OF CRITTENDEN COUNTY	KY	2015	2/4/2016	52,802.81
SHERIFF OF DAVIESS COUNTY	KY	2015	2/4/2016	64,850.52
SHERIFF OF ESTILL COUNTY	KY	2015	2/4/2016	56,565.79
SHERIFF OF GALLATIN COUNTY	KY	2015	2/4/2016	31,087.85
SHERIFF OF GRAVES COUNTY	KY	2015	2/4/2016	1,188.92
SHERIFF OF HANCOCK COUNTY	KY	2015	2/4/2016	25,700.00
SHERIFF OF JESSAMINE COUNTY	KY	2015	2/4/2016	132,215.19
SHERIFF OF MADISON COUNTY	KY	2015	2/4/2016	308,470.33
SHERIFF OF MARSHALL COUNTY	KY	2015	2/4/2016	4,573.85
SHERIFF OF MASON COUNTY	KY	2015	2/4/2016	121,808.62
SHERIFF OF MONTGOMERY COUNTY	KY	2015	2/4/2016	118,943.96
SHERIFF OF NELSON COUNTY	KY	2015	2/4/2016	66,485.14
SHERIFF OF PERRY COUNTY	KY	2015	2/4/2016	4,262.00
SHERIFF OF ROCKCASTLE COUNTY	KY	2015	2/4/2016	34,630.01
SHERIFF OF ROWAN COUNTY	KY	2015	2/4/2016	46,621.06
SHERIFF OF RUSSELL COUNTY	KY	2015	2/4/2016	49,981.49
SHERIFF OF WHITLEY COUNTY	KY	2015	2/4/2016	49,601.46
TAX COLLECTOR HARLAN IND SCHOOL	KY	2015	2/4/2016	29,577.29
TAX COLLECTOR HUSTONVILLE	KY	2015	2/4/2016	959.45
TAX COLLECTOR LYNCH	KY	2015	2/4/2016	1,482.25
TAX COLLECTOR SPARTA	KY	2015	2/4/2016	16.76
OFFICE OF THE FAYETTE COUNTY SHE	KY	2015	2/8/2016	2,000,126.74
CITY OF MT STERLING	KY	2014	2/17/2016	10,428.90
CITY OF BEDFORD	KY	2015	2/17/2016	418.54
CITY OF CROFTON	KY	2015	2/17/2016	1,174.31
CITY OF DAWSON SPRINGS	KY	2015	2/17/2016	3,282.54
CITY OF EARLINGTON	KY	2015	2/17/2016	7,077.37
CITY OF GREENSBURG	KY	2015	2/17/2016	2,468.15
CITY OF JAMESTOWN	KY	2015	2/17/2016	3,314.37
CITY OF KEVIL	KY	2015	2/17/2016	1,230.43
CITY OF LOYALL	KY	2015	2/17/2016	2,994.01
CITY OF MILTON	KY	2015	2/17/2016	153.6
CITY OF MORTONS GAP	KY	2015	2/17/2016	1,449.39
CITY OF MT STERLING	KY	2015	2/17/2016	12,005.04
CITY OF MT VERNON	KY	2015	2/17/2016	1,392.53
CITY OF NEW HAVEN	KY	2015	2/17/2016	1,511.96

Kentucky Utilities Company
Property Tax Payment History
For payments between 01/01/2016 and 12/31/2016

Payee Description	State	Assessment Year	Date	Amount
CITY OF RUSSELL SPRINGS	KY	2015	2/17/2016	3,551.47
CITY OF SACRAMENTO	KY	2015	2/17/2016	513.6
CITY OF STANFORD	KY	2015	2/17/2016	1,707.36
CITY OF VINE GROVE	KY	2015	2/17/2016	7,107.40
SHERIFF OF CARLISLE COUNTY	KY	2015	2/17/2016	13.97
SHERIFF OF CHRISTIAN COUNTY	KY	2015	2/17/2016	12,571.27
SHERIFF OF FULTON COUNTY	KY	2015	2/17/2016	522.25
SHERIFF OF HARLAN COUNTY	KY	2015	2/17/2016	517,509.29
SHERIFF OF JEFFERSON COUNTY	KY	2015	2/17/2016	793,277.15
SHERIFF OF LAUREL COUNTY	KY	2015	2/17/2016	171,228.12
SHERIFF OF LETCHER COUNTY	KY	2015	2/17/2016	2,161.21
SHERIFF OF LINCOLN COUNTY	KY	2015	2/17/2016	85,953.53
SHERIFF OF PULASKI COUNTY	KY	2015	2/17/2016	123,282.86
TAX COLLECTOR CENTERTOWN	KY	2015	2/17/2016	737.46
BOARD OF EDUCATION DANVILLE INDE	KY	2015	3/4/2016	104,831.69
CITY OF BONNIEVILLE	KY	2015	3/4/2016	3,813.91
CITY OF HANSON	KY	2015	3/4/2016	262.95
CITY OF HARTFORD	KY	2015	3/4/2016	6,526.54
CITY OF MARION	KY	2015	3/4/2016	3,990.74
CITY OF NORTONVILLE	KY	2015	3/4/2016	2,358.57
CITY OF PINEVILLE	KY	2015	3/4/2016	13,921.30
CITY OF SLAUGHTERS	KY	2015	3/4/2016	179.3
CITY OF STURGIS	KY	2015	3/4/2016	3,165.78
CITY OF UNIONTOWN	KY	2015	3/4/2016	1,935.50
CITY OF WHITE PLAINS	KY	2015	3/4/2016	131.35
CITY OF WILMORE	KY	2015	3/4/2016	9,842.16
SHERIFF OF HARDIN COUNTY	KY	2015	3/4/2016	334,293.86
SHERIFF OF HENRY COUNTY	KY	2015	3/4/2016	122,811.01
SHERIFF OF HOPKINS COUNTY	KY	2015	3/4/2016	384,860.67
SHERIFF OF KNOX COUNTY	KY	2015	3/4/2016	120,689.43
SHERIFF OF MCCRACKEN COUNTY	KY	2015	3/4/2016	67,411.71
TAX COLLECTOR CORBIN	KY	2015	3/4/2016	1,196.75
TAX COLLECTOR MENTOR	KY	2015	3/4/2016	370.86
CAMPBELLSVILLE INDENPENDENT SCHO	KY	2015	3/23/2016	28,999.55
CITY OF BARLOW	KY	2015	3/23/2016	4,362.66
CITY OF CLARKSON	KY	2015	3/23/2016	548.74
CITY OF LORETTO	KY	2015	3/23/2016	625.06
CITY OF MADISONVILLE	KY	2015	3/23/2016	6,456.26
CITY OF PLEASUREVILLE	KY	2015	3/23/2016	61.62
CITY OF SALEM	KY	2015	3/23/2016	1,087.84
FAYETTE COUNTY CLERK - DON BLEVINS	KY	2015	3/1/2016	160,539.86
FAYETTE COUNTY CLERK - DON BLEVINS	KY	2015	3/22/2016	4,190.14
KENTUCKY STATE TREASURER	KY	2015	3/21/2016	1,256.36
SHERIFF OF LIVINGSTON COUNTY	KY	2015	3/23/2016	28,524.37
SHERIFF OF TAYLOR COUNTY	KY	2015	3/23/2016	32,899.96
CITY OF CLAY	KY	2014	4/12/2016	1,536.70
CITY OF BUTLER	KY	2015	4/12/2016	3,291.01
CITY OF CAMPBELLSVILLE	KY	2015	4/12/2016	8,536.93
CITY OF CLAY	KY	2015	4/12/2016	893.58
CITY OF FALMOUTH	KY	2015	4/12/2016	2,334.82

Kentucky Utilities Company
Property Tax Payment History
For payments between 01/01/2016 and 12/31/2016

Payee Description	State	Assessment Year	Date	Amount
CITY OF ISLAND	KY	2015	4/12/2016	335.87
CITY OF LEBANON	KY	2015	4/12/2016	5,740.05
FAYETTE COUNTY CLERK - DON BLEVINS	KY	2015	4/27/2016	4,927.15
CITY OF LEBANON JUNCTION	KY	2015	4/12/2016	2,289.68
SHERIFF OF BRACKEN COUNTY	KY	2015	5/4/2016	66,182.81
BOARD OF EDUCATION AUGUSTA	KY	2015	5/18/2016	12,103.36
CITY OF AUGUSTA	KY	2015	5/18/2016	5,092.09
Fayette County Clerk (vehicle)	KY	2015	5/16/2016	855.14
SHERIFF OF CALDWELL COUNTY	KY	2015	5/18/2016	46,781.15
SHERIFF OF LIVINGSTON COUNTY	KY	2014	6/9/2016	-15.98
BOARD OF EDUCATION PARIS INDPT	KY	2015	6/9/2016	878.37
CITY OF COLUMBIA	KY	2015	6/9/2016	6,064.41
CITY OF BROOKSVILLE	KY	2015	6/29/2016	2,687.39
CITY OF PARIS	KY	2015	6/29/2016	444.66
SHERIFF OF BOURBON COUNTY	KY	2015	6/13/2016	167,729.11
FAYETTE COUNTY CLERK - DON BLEVINS	KY	2015	6/30/2016	765.69
SHERIFF OF ROCKCASTLE COUNTY	KY	2015	6/29/2016	5,594.42
CITY OF MOREHEAD	KY	2015	7/15/2016	6,986.20
SHERIFF OF MUHLENBERG COUNTY	KY	2015	7/15/2016	7,221.65
SHERIFF OF PENDLETON COUNTY	KY	2015	7/15/2016	2,091.17
CITY OF SOMERSET	KY	2015	8/5/2016	52,539.06
CITY OF SOMERSET	KY	2013	8/22/2016	2,065.65
CITY OF BURNSIDE	KY	2014	8/22/2016	1,456.84
CITY OF SOMERSET	KY	2014	8/22/2016	4,003.73
CITY OF BURNSIDE	KY	2015	8/22/2016	1,670.30
CITY OF DAWSON SPRINGS	KY	2015	8/22/2016	5,672.09
CITY OF SOMERSET	KY	2015	8/22/2016	5,609.29
FAYETTE COUNTY CLERK - DON BLEVINS	KY	2016	8/12/2016	45,174.00
CITY OF STAMPING GROUND	KY	2015	8/22/2016	492.73
SHERIFF OF FLEMING COUNTY	KY	2015	9/16/2016	24,714.96
CITY OF PERRYVILLE	KY	2015	9/28/2016	1,141.30
SHERIFF OF BOYLE COUNTY	KY	2015	9/28/2016	210,092.10
SHERIFF OF BOYLE COUNTY	KY	2015	9/30/2016	287.85
CITY OF JUNCTION CITY	KY	2015	10/7/2016	920.47
CITY OF PRINCETON	KY	2015	10/7/2016	48.11
SHERIFF OF OWSLEY COUNTY	KY	2014	10/20/2016	8,272.81
SHERIFF OF BALLARD COUNTY	KY	2015	10/31/2016	1,259.15
KNOX COUNTY SHERIFF	KY	2015	10/6/2016	50.54
SHERIFF OF OWSLEY COUNTY	KY	2015	10/20/2016	7,000.69
KENTUCKY STATE TREASURER	KY	2016	10/26/2016	12,222,519.70
TAX COLLECTOR LAKEVIEW HEIGHTS	KY	2013	11/10/2016	137.19
TAX COLLECTOR LAKEVIEW HEIGHTS	KY	2014	11/10/2016	162.36
CITY OF MILLERSBURG	KY	2015	11/10/2016	6,444.40
CITY OF RICHMOND	KY	2016	11/17/2016	72.00
SHERIFF OF MADISON COUNTY	KY	2016	11/17/2016	498.68
TAX COLLECTOR LAKEVIEW HEIGHTS	KY	2015	11/10/2016	193.26
CITY OF SCIENCE HILL	KY	2014	12/15/2016	1,443.42
SHERIFF OF GRANT COUNTY	KY	2015	12/28/2016	-1,927.00
CITY OF SCIENCE HILL	KY	2015	12/15/2016	1,383.29
Appalachia	VA	2015	3/22/2016	7,855.94

Kentucky Utilities Company
Property Tax Payment History
For payments between 01/01/2016 and 12/31/2016

Payee Description	State	Assessment Year	Date	Amount
Norton	VA	2016	4/15/2016	1,027.35
Norton	VA	2016	4/15/2016	48,725.74
Russell County	VA	2016	5/23/2016	6,975.70
Russell County - St. Paul	VA	2016	5/23/2016	541.19
Wise County	VA	2016	5/23/2016	148,124.81
Norton Vehicles	VA	2016	9/13/2016	24,523.36
Norton Vehicles	VA	2016	9/16/2016	94.62
Norton	VA	2016	9/27/2016	65,376.54
Norton Vehicles	VA	2016	9/27/2016	309.03
Wise Co. Treasurer	VA	2016	10/21/2016	3,072.73
Dickenson County	VA	2016	10/24/2016	2,511.12
Jonesville	VA	2016	10/24/2016	3,225.91
Lee County	VA	2016	10/24/2016	175,756.07
Russell County	VA	2016	10/24/2016	7,817.31
Russell County - St. Paul	VA	2016	10/24/2016	605.39
Scott County	VA	2016	10/24/2016	7,512.11
St. Paul	VA	2016	10/24/2016	3,743.65
Wise County	VA	2016	10/24/2016	138,080.54
Big Stone Gap	VA	2016	11/10/2016	17,726.42
Coeburn	VA	2016	11/10/2016	3,343.01
Pennington Gap	VA	2016	11/10/2016	5,206.50
Town of Wise	VA	2016	11/10/2016	9,053.09
Lee County Treasurer	VA	2016	11/28/2016	8,108.49
				26,570,609.00

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 21

Responding Witness: Christopher M. Garrett

Q.1-21. For each taxing authority to which aggregate property tax payments exceeding $10,000 were made in 2016, please indicate the method of assessing asset value and whether the asset base includes or excludes CWIP in the determination of the assessed value used to determine the amount of taxes to be paid.

A.1-21. The Company is "Centrally Assessed" by state taxing authorities. The asset base includes CWIP in the assessed value.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 22

Responding Witness: Christopher M. Garrett

Q.1-22. For each taxing authority to which aggregate property tax payments exceeding $10,000 were made in 2016, please indicate the time of the year when value assessments were made and when payments were due. If there are any known changes related to base year and test year assessments and changes, please describe.

A.1-22. The Company's 2016 Assessment was finalized in December 2016. Payments associated with the assessment are paid when the invoice is received from the State and Local taxing authorities. Payments were made in the fourth quarter of 2016 and remaining payments are expected to be made in the first quarter of 2017. There are no known changes related to the base year and the test year assessments from the filing other than normal plant additions.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 23

Responding Witness: Christopher M. Garrett

Q.1-23. For each taxing authority to which aggregate property tax payments exceeding $10,000 were made in 2016, please provide a copy of one property tax return or other information return submitted to each tax assessor and the associated resulting invoice related to taxes paid in 2016.

A.1-23. See attached.

PROPERTY

TAX

RETURNS

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

J

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Adair

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
Adair County	0	1,222,928	0	0	0	0	0	0	0	92,381	3,336,921	4,652,230
Schools												
Common School	0	1,222,928	0	0	0	0	0	0	0	92,381	3,336,921	4,652,230
Schools Total :	**0**	**1,222,928**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**92,381**	**3,336,921**	**4,652,230**
Cities												
Columbia	0	1,007,383	0	0	0	0	0	0	0	91,399	2,120,226	3,219,009
Cities Total :	**0**	**1,007,383**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**91,399**	**2,120,226**	**3,219,009**

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Commonwealth of Kentucky
DEPARTMENT OF REVENUE

J

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Anderson

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Anderson County	0	2,521,556	0	0	0	0	0	0	0	59,940	8,165,403	10,746,899
Schools												
Common School	0	2,521,556	0	0	0	0	0	0	0	59,940	8,165,403	10,746,899
Schools Total :	**0**	**2,521,556**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**59,940**	**8,165,403**	**10,746,899**
Cities												
Lawrenceburg	0	1,250,290	0	0	0	0	0	0	0	18,035	4,200,128	5,468,453
Cities Total :	**0**	**1,250,290**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18,035**	**4,200,128**	**5,468,453**
Fire Districts												
Anderson County FD	0	1,271,265	0	0	0	0	0	0	0	41,905	3,965,275	5,278,445
Fire Districts Total :	**0**	**1,271,265**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41,905**	**3,965,275**	**5,278,445**

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Ballard

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Ballard County	0	2,991,290	0	0	0	0	0	0	0	494,905	5,672,072	9,158,267
Schools												
Common School	0	2,991,290	0	0	0	0	0	0	0	494,905	5,672,072	9,158,267
Schools Total :	**0**	**2,991,290**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**494,905**	**5,672,072**	**9,158,267**
Cities												
Barlow	0	308,710	0	0	0	0	0	0	0	206,401	1,092,039	1,607,149
Kevil	0	84,491	0	0	0	0	0	0	0	132,258	329,536	546,285
LaCenter	0	173,376	0	0	0	0	0	0	0	314	579,264	752,955
Wickliffe	0	721,954	0	0	0	0	0	0	0	107,689	540,482	1,370,125
Cities Total :	**0**	**1,288,530**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**446,662**	**2,541,322**	**4,276,514**

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

J

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Barren

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Barren County	0	307,149	0	0	0	0	0	0	0	1,787	1,829,740	2,138,677
Schools												
Caverna Graded School	0	188,987	0	0	0	0	0	0	0	878	1,014,193	1,204,058
Common School	0	118,163	0	0	0	0	0	0	0	909	815,547	934,619
Schools Total :	**0**	**307,149**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,787**	**1,829,740**	**2,138,677**
Cities												
Cave City	0	163,962	0	0	0	0	0	0	0	846	865,119	1,029,926
Cities Total :	**0**	**163,962**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**846**	**865,119**	**1,029,926**

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

J

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Bath

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
Bath County	0	996,627	0	0	0	0	0	0	0	62,951	4,542,045	5,601,623
Schools												
Common School	0	996,627	0	0	0	0	0	0	0	62,951	4,542,045	5,601,623
Schools Total :	**0**	**996,627**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**62,951**	**4,542,045**	**5,601,623**
Cities												
Owingsville	0	282,654	0	0	0	0	0	0	0	916	818,136	1,101,707
Salt Lick	0	58,785	0	0	0	0	0	0	0	634	337,437	396,856
Sharpsburg	0	52,257	0	0	0	0	0	0	0	107	167,058	219,421
Cities Total :	**0**	**393,696**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,657**	**1,322,630**	**1,717,983**
Fire Districts												
Bath County FD	0	713,973	0	0	0	0	0	0	0	62,035	3,723,909	4,499,916
Fire Districts Total :	**0**	**713,973**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**62,035**	**3,723,909**	**4,499,916**
Other Districts												
Salt Lick Creek Watershed	0	735	0	0	0	0	0	0	0	80	132,345	133,159
Other Districts Total :	**0**	**735**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**80**	**132,345**	**133,1[illegible]9**

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Commonwealth of Kentucky
DEPARTMENT OF REVENUE

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Bell

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Bell County	0	17,877,652	0	0	0	0	0	0	0	4,900,010	33,250,919	56,028,581
Schools												
Common School	0	14,395,740	0	0	0	0	0	0	0	2,340,912	23,330,455	40,067,107
Middlesboro Graded School	0	2,507,744	0	0	0	0	0	0	0	487,332	4,662,715	7,657,792
Pineville Graded School	0	974,168	0	0	0	0	0	0	0	2,071,765	5,257,749	8,303,682
Schools Total :	**0**	**17,877,652**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,900,010**	**33,250,919**	**56,028,581**
Cities												
Middlesboro	0	1,139,975	0	0	0	0	0	0	0	485,032	688,591	2,313,598
Pineville	0	952,648	0	0	0	0	0	0	0	2,071,678	5,154,420	8,178,746
Cities Total :	**0**	**2,092,623**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,556,710**	**5,843,011**	**10,492,344**

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Commonwealth of Kentucky
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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Bourbon

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Bourbon County	0	5,976,993	0	0	0	0	0	0	0	1,103,223	18,275,425	25,355,641
Schools												
Common School	0	5,925,514	0	0	0	0	0	0	0	1,099,399	18,169,169	25,194,083
Paris Graded School	0	51,479	0	0	0	0	0	0	0	3,824	106,256	161,559
Schools Total :	**0**	**5,976,993**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,103,223**	**18,275,425**	**25,355,641**
Cities												
Millersburg	0	1,304,035	0	0	0	0	0	0	0	244,189	755,700	2,303,925
North Middleton	0	75,321	0	0	0	0	0	0	0	114	222,965	298,400
Paris	0	2,746,164	0	0	0	0	0	0	0	725,614	3,987,808	7,459,585
Cities Total :	**0**	**4,125,519**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**969,917**	**4,966,474**	**10,061,910**

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Boyle

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Boyle County	0	8,157,692	0	0	0	0	0	0	0	3,867,614	28,714,838	40,740,144
Schools												
Common School	0	2,852,643	0	0	0	0	0	0	0	426,629	7,680,839	10,960,111
Danville Graded School	0	5,305,049	0	0	0	0	0	0	0	3,440,985	21,033,999	29,780,033
Schools Total :	**0**	**8,157,692**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,867,614**	**28,714,838**	**40,740,144**
Cities												
Danville	0	5,305,049	0	0	0	0	0	0	0	3,440,985	21,033,999	29,780,033
Junction City	0	558,333	0	0	0	0	0	0	0	4,859	658,734	1,221,926
Perryville	0	71,305	0	0	0	0	0	0	0	198	311,914	383,417
Cities Total :	**0**	**5,934,688**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,446,042**	**22,004,646**	**31,385,376**
Fire Districts												
Boyle County FD	0	2,223,004	0	0	0	0	0	0	0	421,572	6,710,192	9,354,768
Fire Districts Total :	**0**	**2,223,004**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**421,572**	**6,710,192**	**9,354,768**

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

J

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Bracken

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Bracken County	0	1,173,352	0	0	0	0	0	0	0	60,293	6,320,414	7,554,059
Schools												
Augusta Graded School	0	266,189	0	0	0	0	0	0	0	24,167	1,846,171	2,136,527
Common School	0	907,163	0	0	0	0	0	0	0	36,126	4,474,243	5,417,532
Schools Total :	**0**	**1,173,352**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60,293**	**6,320,414**	**7,554,059**
Cities												
Augusta	0	213,912	0	0	0	0	0	0	0	23,914	751,156	988,983
Brooksville	0	88,599	0	0	0	0	0	0	0	614	273,118	362,331
Germantown	0	27,690	0	0	0	0	0	0	0	123	104,960	132,772
Cities Total :	**0**	**330,201**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24,651**	**1,129,234**	**1,484,086**

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Name of Taxpayer Kentucky Utilities Company

County of Location Breckinridge

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Breckinridge County	0	114,335	0	0	0	0	0	0	0	836,458	9,841,817	10,792,609
Schools												
Common School	0	114,335	0	0	0	0	0	0	0	836,458	9,841,817	10,792,609
Schools Total :	**0**	**114,335**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**836,458**	**9,841,817**	**10,792,609**

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Name of Taxpayer Kentucky Utilities Company

County of Location Bullitt

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Bullitt County	0	1,295,423	0	0	0	0	0	0	0	289,819	995,303	2,580,544
Schools												
Common School	0	1,295,423	0	0	0	0	0	0	0	289,819	995,303	2,580,544
Schools Total :	**0**	**1,295,423**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**289,819**	**995,303**	**2,580,544**
Cities												
Lebanon Junction	0	95,679	0	0	0	0	0	0	0	498	650,904	747,081
Cities Total :	**0**	**95,679**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**498**	**650,904**	**747,081**
Fire Districts												
Zoneton FD	0	1,199,743	0	0	0	0	0	0	0	289,321	335,866	1,824,930
Fire Districts Total :	**0**	**1,199,743**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**289,321**	**335,866**	**1,824,930**

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Name of Taxpayer Kentucky Utilities Company

County of Location Butler

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Butler County	0	173	0	0	0	0	0	0	0	5,233	312,237	317,643
Schools												
Common School	0	173	0	0	0	0	0	0	0	5,233	312,237	317,643
Schools Total :	**0**	**173**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,233**	**312,237**	**317,643**

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Name of Taxpayer Kentucky Utilities Company

County of Location Caldwell

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
Caldwell County	0	1,669,677	0	0	0	0	0	0	0	70,853	5,560,602	7,301,132
Schools												
Common School	0	1,669,677	0	0	0	0	0	0	0	70,853	5,560,602	7,301,132
Schools Total :	**0**	**1,669,677**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**70,853**	**5,560,602**	**7,301,132**
Cities												
Fredonia	0	126,381	0	0	0	0	0	0	0	656	932,074	1,059,112
Princeton	0	781,133	0	0	0	0	0	0	0	43,067	4,538	828,738
Cities Total :	**0**	**907,514**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**43,723**	**936,612**	**1,887,850**

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Name of Taxpayer Kentucky Utilities Company

County of Location Campbell

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Campbell County	0	216,377	0	0	0	0	0	0	0	1,584	1,031,894	1,249,854
Schools												
Common School	0	216,377	0	0	0	0	0	0	0	1,584	1,031,894	1,249,854
Schools Total :	**0**	**216,377**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,584**	**1,031,894**	**1,249,854**
Cities												
California	0	24,126	0	0	0	0	0	0	0	66	63,971	88,163
Mentor	0	34,243	0	0	0	0	0	0	0	85	135,128	169,455
Cities Total :	**0**	**58,369**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**151**	**199,099**	**257,619**
Fire Districts												
Campbell County FD	0	216,377	0	0	0	0	0	0	0	1,584	1,031,894	1,249,854
Fire Districts Total :	**0**	**216,377**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,584**	**1,031,894**	**1,249,854**

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Name of Taxpayer Kentucky Utilities Company

County of Location Carlisle

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Carlisle County	0	98,651	0	0	0	0	0	0	0	35,743	538,100	672,495
Schools												
Common School	0	98,651	0	0	0	0	0	0	0	35,743	538,100	672,495
Schools Total :	**0**	**98,651**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35,743**	**538,100**	**672,495**
Cities												
Bardwell	0	98,651	0	0	0	0	0	0	0	35,743	538,100	672,495
Cities Total :	**0**	**98,651**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35,743**	**538,100**	**672,495**

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Name of Taxpayer Kentucky Utilities Company

County of Location Carroll

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Carroll County	59,108,543	669,699,010	0	1,221,301,983	5,242,138	0	0	0	0	60,544,330	37,427,711	2,053,323,715
Schools												
Common School	59,108,543	669,699,010	0	1,221,301,983	5,242,138	0	0	0	0	60,544,330	37,427,711	2,053,323,715
Schools Total :	**59,108,543**	**669,699,010**	**0**	**1,221,301,983**	**5,242,138**	**0**	**0**	**0**	**0**	**60,544,330**	**37,427,711**	**2,053,323,715**
Cities												
Carrollton	0	1,481,994	0	0	0	0	0	0	0	156,731	3,052,201	4,690,927
Ghent	0	115,698	0	0	0	0	0	0	0	12,536	988,716	1,116,951
Prestonville	0	30,588	0	0	0	0	0	0	0	20	82,036	112,644
Sanders	0	28,880	0	0	0	0	0	0	0	39	95,410	124,329
Worthville	0	30,102	0	0	0	0	0	0	0	58	114,549	144,709
Cities Total :	**0**	**1,687,262**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**169,385**	**4,332,913**	**6,189,560**
Fire Districts												
Ghent FD	59,108,543	666,174,157	0	1,221,301,983	4,427,646	0	0	0	0	59,703,203	26,128,664	2,036,844,196
Fire Districts Total :	**59,108,543**	**666,174,157**	**0**	**1,221,301,983**	**4,427,646**	**0**	**0**	**0**	**0**	**59,703,203**	**26,128,664**	**2,036,844,196**

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Name of Taxpayer Kentucky Utilities Company
County of Location Casey

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
Casey County	0	795,325	0	0	0	0	0	0	0	29,138	2,509,854	3,334,317
Schools												
Common School	0	795,325	0	0	0	0	0	0	0	29,138	2,509,854	3,334,317
Schools Total :	**0**	**795,325**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**29,138**	**2,509,854**	**3,334,317**
Cities												
Liberty City	0	542,481	0	0	0	0	0	0	0	12,203	1,293,925	1,848,609
Cities Total :	**0**	**542,481**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12,203**	**1,293,925**	**1,848,609**

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Name of Taxpayer Kentucky Utilities Company
County of Location Christian

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Christian County	0	564,457	0	0	0	0	0	0	0	10,971	1,750,039	2,325,467
Schools												
Common School	0	564,457	0	0	0	0	0	0	0	10,971	1,750,039	2,325,467
Schools Total :	**0**	**564,457**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10,971**	**1,750,039**	**2,325,467**
Cities												
Crofton	0	113,787	0	0	0	0	0	0	0	286	340,022	454,095
Cities Total :	**0**	**113,787**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**286**	**340,022**	**454,095**
Other Districts												
West Fork of Pond River Watershe	0	564,457	0	0	0	0	0	0	0	10,971	1,750,039	2,325,467
Other Districts Total :	**0**	**564,457**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10,971**	**1,750,039**	**2,325,467**

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Name of Taxpayer Kentucky Utilities Company

County of Location Clark

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Clark County	0	7,565,507	0	0	0	0	0	0	0	1,114,437	16,523,029	25,202,974
Schools												
Common School	0	7,565,507	0	0	0	0	0	0	0	1,114,437	16,523,029	25,202,974
Schools Total :	**0**	**7,565,507**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,114,437**	**16,523,029**	**25,202,974**
Cities												
Winchester	0	3,602,060	0	0	0	0	0	0	0	925,286	8,772,862	13,300,209
Cities Total :	**0**	**3,602,060**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**925,286**	**8,772,862**	**13,300,209**

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Name of Taxpayer Kentucky Utilities Company

County of Location Clay

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In-Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Clay County	0	1,348,828	0	0	0	0	0	0	0	89,350	3,782,222	5,220,400
Schools												
Common School	0	1,348,828	0	0	0	0	0	0	0	89,350	3,782,222	5,220,400
Schools Total :	**0**	**1,348,828**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**89,350**	**3,782,222**	**5,220,400**
Cities												
Manchester	0	247,475	0	0	0	0	0	0	0	24,311	1,313,058	1,584,845
Cities Total :	**0**	**247,475**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24,311**	**1,313,058**	**1,584,845**

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Name of Taxpayer Kentucky Utilities Company

County of Location Crittenden

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Crittenden County	0	1,977,362	0	0	0	0	0	0	0	156,872	7,452,099	9,586,334
Schools												
Common School	0	1,977,362	0	0	0	0	0	0	0	156,872	7,452,099	9,586,334
Schools Total :	**0**	**1,977,362**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**156,872**	**7,452,099**	**9,586,334**
Cities												
Marion	0	946,068	0	0	0	0	0	0	0	21,110	1,795,250	2,762,428
Cities Total :	**0**	**946,068**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21,110**	**1,795,250**	**2,762,428**

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Name of Taxpayer Kentucky Utilities Company

County of Location Daviess

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Daviess County	0	2,213,075	0	0	0	0	0	0	0	614,766	7,355,598	10,183,438
Schools												
Common School	0	2,213,075	0	0	0	0	0	0	0	614,766	7,355,598	10,183,438
Schools Total :	**0**	**2,213,075**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**614,766**	**7,355,598**	**10,183,438**

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Name of Taxpayer Kentucky Utilities Company
County of Location Edmonson

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Edmonson County	0	26,209	0	0	0	0	0	0	0	1,954	340,323	368,486
Schools												
Common School	0	26,209	0	0	0	0	0	0	0	1,954	340,323	368,486
Schools Total :	**0**	**26,209**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,954**	**340,323**	**368,486**

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Name of Taxpayer Kentucky Utilities Company

County of Location Estill

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Estill County	0	1,828,438	0	0	0	0	0	0	0	180,187	5,065,820	7,074,445
Schools												
Common School	0	1,828,438	0	0	0	0	0	0	0	180,187	5,065,820	7,074,445
Schools Total :	**0**	**1,828,438**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**180,187**	**5,065,820**	**7,074,445**
Cities												
Irvine	0	245,744	0	0	0	0	0	0	0	22,460	1,354,421	1,622,625
Ravenna	0	44,168	0	0	0	0	0	0	0	19,573	477,373	541,114
Cities Total :	**0**	**289,912**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**42,034**	**1,831,793**	**2,163,739**

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Name of Taxpayer Kentucky Utilities Company

County of Location Fayette

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Fayette County	228,346	124,059,563	0	263,868	0	0	0	0	0	23,759,923	223,185,610	371,497,311
Schools												
Common School	228,346	124,059,563	0	263,868	0	0	0	0	0	23,759,923	223,185,610	371,497,311
Schools Total :	**228,346**	**124,059,563**	**0**	**263,868**	**0**	**0**	**0**	**0**	**0**	**23,759,923**	**223,185,610**	**371,497,311**
Cities												
Lexington - Refuse	228,346	80,477,558	0	263,868	0	0	0	0	0	17,308,530	146,783,699	245,062,001
Lexington - Street Cleaning	228,346	80,477,558	0	263,868	0	0	0	0	0	17,254,184	146,783,699	245,007,655
Lexington - Street Lights	228,346	80,477,558	0	263,868	0	0	0	0	0	21,598,978	147,783,197	250,351,947
Cities Total :	**685,038**	**241,432,674**	**0**	**791,605**	**0**	**0**	**0**	**0**	**0**	**56,161,692**	**441,350,594**	**740,421,604**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Fleming

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Fleming County	0	1,289,283	0	0	0	0	0	0	0	12,034	3,095,503	4,396,820
Schools												
Common School	0	1,289,283	0	0	0	0	0	0	0	12,034	3,095,503	4,396,820
Schools Total :	**0**	**1,289,283**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12,034**	**3,095,503**	**4,396,820**
Cities												
Flemingsburg	0	971,397	0	0	0	0	0	0	0	2,206	1,063,893	2,037,496
Cities Total :	**0**	**971,397**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,206**	**1,063,893**	**2,037,496**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company
County of Location Franklin

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Franklin County	0	5,409,073	0	0	0	0	0	0	0	579,248	9,971,447	15,959,768
Schools												
Common School	0	5,409,073	0	0	0	0	0	0	0	579,248	9,971,447	15,959,768
Schools Total :	**0**	**5,409,073**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**579,248**	**9,971,447**	**15,959,768**
Cities												
Frankfort	0	1,439,745	0	0	0	0	0	0	0	85,663	1,875,729	3,401,137
Cities Total :	**0**	**1,439,745**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**85,663**	**1,875,729**	**3,401,137**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Fulton

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Fulton County	0	13,973	0	0	0	0	0	0	0	35	58,057	72,066
Schools												
Common School	0	13,973	0	0	0	0	0	0	0	35	58,057	72,066
Schools Total :	**0**	**13,973**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35**	**58,057**	**72,066**

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Name of Taxpayer Kentucky Utilities Company

County of Location Gallatin

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
Gallatin County	0	1,509,330	0	0	0	0	0	0	0	153,197	3,338,120	5,000,647
Schools												
Common School	0	1,509,330	0	0	0	0	0	0	0	153,197	3,338,120	5,000,647
Schools Total :	**0**	**1,509,330**	**0**	0	**0**	**0**	**0**	**0**	**0**	**153,197**	**3,338,120**	**5,000,647**
Cities												
Glencoe	0	58,960	0	0	0	0	0	0	0	152	163,304	222,415
Sparta	0	1,429	0	0	0	0	0	0	0	58	7,765	9,252
Warsaw	0	1,128,856	0	0	0	0	0	0	0	107,274	1,671,847	2,907,977
Cities Total :	**0**	**1,189,244**	**0**	0	**0**	**0**	**0**	**0**	**0**	**107,483**	**1,842,916**	**3,139,644**

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Name of Taxpayer Kentucky Utilities Company
County of Location Garrard

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Garrard County	0	2,042,490	0	0	0	0	0	0	0	7,284,136	8,667,542	17,994,168
Schools												
Common School	0	2,042,490	0	0	0	0	0	0	0	7,284,136	8,667,542	17,994,168
Schools Total :	**0**	**2,042,490**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7,284,136**	**8,667,542**	**17,994,168**
Cities												
Lancaster	0	873,988	0	0	0	0	0	0	0	71,829	2,352,276	3,298,092
Cities Total :	**0**	**873,988**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**71,829**	**2,352,276**	**3,298,092**
Fire Districts												
Camp Dick FD #2	0	1,030,004	0	0	0	0	0	0	0	7,211,150	6,317,636	14,558,790
Garrard County FD #1	0	1,012,486	0	0	0	0	0	0	0	72,985	2,349,906	3,435,378
Fire Districts Total :	**0**	**2,042,490**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7,284,136**	**8,667,542**	**17,994,168**

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Name of Taxpayer Kentucky Utilities Company

County of Location Grant

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Grant County	0	68,395	0	0	0	0	0	0	0	25,030	546,645	640,070
Schools												
Common School	0	68,395	0	0	0	0	0	0	0	25,030	546,645	640,070
Schools Total :	**0**	**68,395**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**25,030**	**546,645**	**640,070**
Cities												
Corinth	0	36,142	0	0	0	0	0	0	0	98	149,925	186,165
Cities Total :	**0**	**36,142**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**98**	**149,925**	**186,165**

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Name of Taxpayer Kentucky Utilities Company

County of Location Graves

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Graves County	0	0	0	0	0	0	0	0	0	1,370	125,765	127,135
Schools												
Common School	0	0	0	0	0	0	0	0	0	1,370	125,765	127,135
Schools Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,370**	**125,765**	**127,135**

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Name of Taxpayer Kentucky Utilities Company

County of Location Grayson

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Grayson County	0	2,826,348	0	0	0	0	0	0	0	174,162	6,028,845	9,029,355
Schools												
Common School	0	2,826,348	0	0	0	0	0	0	0	174,162	6,028,845	9,029,355
Schools Total :	**0**	**2,826,348**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**174,162**	**6,028,845**	**9,029,355**
Cities												
Caneyville	0	69,673	0	0	0	0	0	0	0	78	257,502	327,253
Clarkson	0	210,375	0	0	0	0	0	0	0	2,642	534,128	747,145
Leitchfield	0	1,930,332	0	0	0	0	0	0	0	83,457	2,585,037	4,598,826
Cities Total :	**0**	**2,210,379**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**86,176**	**3,376,668**	**5,673,223**
Other Districts												
Caney Creek Watershed	0	154,318	0	0	0	0	0	0	0	10	609,928	764,256
Other Districts Total :	**0**	**154,318**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**609,928**	**764,256**

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Name of Taxpayer Kentucky Utilities Company
County of Location Green

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Green County	0	523,790	0	0	0	0	0	0	0	7,334	2,312,749	2,843,873
Schools												
Common School	0	523,790	0	0	0	0	0	0	0	7,334	2,312,749	2,843,873
Schools Total :	**0**	**523,790**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7,334**	**2,312,749**	**2,843,873**
Cities												
Greensburg	0	216,468	0	0	0	0	0	0	0	1,105	1,085,860	1,303,433
Cities Total :	**0**	**216,468**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,105**	**1,085,860**	**1,303,433**

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Name of Taxpayer Kentucky Utilities Company

County of Location Hancock

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Hancock County	0	0	0	0	0	0	0	0	0	314,165	3,200,924	3,515,089
Schools												
Common School	0	0	0	0	0	0	0	0	0	314,165	3,200,924	3,515,089
Schools Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**314,165**	**3,200,924**	**3,515,089**

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Name of Taxpayer Kentucky Utilities Company

County of Location Hardin

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Hardin County	0	26,264,750	0	0	0	0	0	0	0	4,039,138	43,055,042	73,358,930
Schools												
Common School	0	25,388,676	0	0	0	0	0	0	0	4,021,192	35,646,558	65,056,426
Elizabethtown School	0	876,074	0	0	0	0	0	0	0	17,946	7,408,484	8,302,504
Schools Total :	**0**	**26,264,750**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,039,138**	**43,055,042**	**73,358,930**
Cities												
Elizabethtown	0	6,689,670	0	0	0	0	0	0	0	2,388,480	15,385,364	24,463,514
Radcliff	0	2,397,908	0	0	0	0	0	0	0	126,540	4,081,431	6,605,879
Sonora	0	114,072	0	0	0	0	0	0	0	4,064	530,309	648,445
Upton	0	47,354	0	0	0	0	0	0	0	2,719	337,612	387,684
Vine Grove	0	338,312	0	0	0	0	0	0	0	2,213	1,622,800	1,963,325
Cities Total :	**0**	**9,587,316**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,524,016**	**21,957,516**	**34,068,848**

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Name of Taxpayer Kentucky Utilities Company

County of Location Harlan

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Harlan County	0	11,224,323	0	0	0	0	0	0	0	2,813,999	30,728,668	44,766,990
Schools												
Common School	0	8,715,059	0	0	0	0	0	0	0	2,378,474	25,904,755	36,998,288
Harlan Graded School	0	2,509,264	0	0	0	0	0	0	0	435,525	4,823,913	7,768,702
Schools Total :	**0**	**11,224,323**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,813,999**	**30,728,668**	**44,766,990**
Cities												
Cumberland	0	292,475	0	0	0	0	0	0	0	698	1,028,350	1,321,522
Evarts	0	99,656	0	0	0	0	0	0	0	1,289	720,699	821,644
Harlan	0	2,386,769	0	0	0	0	0	0	0	332,705	3,325,087	6,044,560
Loyall	0	193,733	0	0	0	0	0	0	0	404	587,511	781,648
Lynch	0	393,151	0	0	0	0	0	0	0	11,922	552,925	957,998
Wallins Creek	0	41,446	0	0	0	0	0	0	0	691	276,794	318,931
Cities Total :	**0**	**3,407,230**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**347,708**	**6,491,364**	**10,246,303**

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Name of Taxpayer Kentucky Utilities Company
County of Location Harrison

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Harrison County	0	1,935,385	0	0	0	0	0	0	0	185,435	5,343,734	7,464,554
Schools												
Common School	0	1,935,385	0	0	0	0	0	0	0	185,435	5,343,734	7,464,554
Schools Total :	**0**	**1,935,385**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**185,435**	**5,343,734**	**7,464,554**
Cities												
Berry	0	39,135	0	0	0	0	0	0	0	56	145,898	185,088
Cynthiana	0	1,223,327	0	0	0	0	0	0	0	164,121	2,095,594	3,483,042
Cities Total :	**0**	**1,262,462**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**164,177**	**2,241,492**	**3,668,130**
Fire Districts												
Harrison County FD	0	672,923	0	0	0	0	0	0	0	21,258	3,102,242	3,796,424
Fire Districts Total :	**0**	**672,923**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21,258**	**3,102,242**	**3,796,424**

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Name of Taxpayer Kentucky Utilities Company

County of Location Hart

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Hart County	0	3,482,250	0	0	0	0	0	0	0	160,049	8,178,747	11,821,046
Schools												
Caverna Graded School	0	1,850,431	0	0	0	0	0	0	0	33,364	1,994,906	3,878,702
Common School	0	1,631,819	0	0	0	0	0	0	0	126,685	6,183,841	7,942,344
Schools Total :	**0**	**3,482,250**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**160,049**	**8,178,747**	**11,821,046**
Cities												
Bonnieville	0	903,013	0	0	0	0	0	0	0	89,032	3,310,687	4,302,732
Horse Cave	0	1,774,327	0	0	0	0	0	0	0	33,017	1,418,935	3,226,279
Munfordville	0	437,146	0	0	0	0	0	0	0	30,231	1,067,517	1,534,894
Cities Total :	**0**	**3,114,486**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**152,280**	**5,797,139**	**9,063,905**

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Name of Taxpayer Kentucky Utilities Company

County of Location Henderson

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Henderson County	0	2,381,794	0	0	0	0	0	0	0	120,773	5,054,661	7,557,228
Schools												
Common School	0	2,381,794	0	0	0	0	0	0	0	120,773	5,054,661	7,557,228
Schools Total :	**0**	**2,381,794**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**120,773**	**5,054,661**	**7,557,228**
Cities												
Corydon	0	103,782	0	0	0	0	0	0	0	207	374,233	478,223
Henderson	0	336,525	0	0	0	0	0	0	0	34,802	1,329,478	1,700,804
Cities Total :	**0**	**440,307**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35,009**	**1,703,711**	**2,179,027**

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Name of Taxpayer Kentucky Utilities Company

County of Location Henry

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Henry County	0	2,303,676	0	0	0	0	0	0	0	478,778	9,287,444	12,069,899
Schools												
Common School	0	1,339,362	0	0	0	0	0	0	0	235,400	7,620,135	9,194,897
Eminence Graded School	0	964,315	0	0	0	0	0	0	0	243,378	1,667,309	2,875,001
Schools Total :	**0**	**2,303,676**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**478,778**	**9,287,444**	**12,069,899**
Cities												
Campbellsburg	0	58,541	0	0	0	0	0	0	0	117	203,050	261,708
Eminence	0	765,766	0	0	0	0	0	0	0	229,622	724,589	1,719,977
New Castle	0	49,429	0	0	0	0	0	0	0	101	166,157	215,687
Pleasureville-Henry Co.	0	57,314	0	0	0	0	0	0	0	213	246,987	304,514
Smithfield	0	14,847	0	0	0	0	0	0	0	31	56,283	71,161
Cities Total :	**0**	**945,897**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**230,084**	**1,397,066**	**2,573,047**

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Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company

County of Location Hickman

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Hickman County	0	582,700	0	0	0	0	0	0	0	77,704	1,873,584	2,533,989
Schools												
Common School	0	582,700	0	0	0	0	0	0	0	77,704	1,873,584	2,533,989
Schools Total :	**0**	**582,700**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**77,704**	**1,873,584**	**2,533,989**
Cities												
Clinton	0	469,885	0	0	0	0	0	0	0	73,696	887,502	1,431,082
Cities Total :	**0**	**469,885**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**73,696**	**887,502**	**1,431,082**
Fire Districts												
Clinton FD	0	469,885	0	0	0	0	0	0	0	73,696	887,502	1,431,082
Columbus FD	0	30,343	0	0	0	0	0	0	0	126	106,630	137,099
Fire Districts Total :	**0**	**500,227**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**73,822**	**994,132**	**1,568,181**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Hopkins

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Hopkins County	0	17,533,312	0	0	0	0	0	0	0	4,090,178	46,521,482	68,144,972
Schools												
Common School	0	16,754,498	0	0	0	0	0	0	0	3,968,109	44,619,360	65,341,967
Dawson Springs Graded School	0	778,813	0	0	0	0	0	0	0	122,070	1,902,122	2,803,005
Schools Total :	**0**	**17,533,312**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,090,178**	**46,521,482**	**68,144,972**
Cities												
Dawson Springs	0	778,813	0	0	0	0	0	0	0	122,070	1,902,122	2,803,005
Earlington	0	4,158,264	0	0	0	0	0	0	0	3,578,411	11,209,462	18,946,137
Hanson	0	101,450	0	0	0	0	0	0	0	967	515,696	618,113
Madisonville	0	2,253,266	0	0	0	0	0	0	0	128,819	3,332,936	5,715,021
Mortons Gap	0	137,305	0	0	0	0	0	0	0	277	433,501	571,083
Nebo	0	39,192	0	0	0	0	0	0	0	3,838	707,952	750,982
Nortonville	0	624,070	0	0	0	0	0	0	0	14,438	622,462	1,260,970
St. Charles	0	106,812	0	0	0	0	0	0	0	380	217,999	325,191
White Plains	0	587,721	0	0	0	0	0	0	0	2,070	757,698	1,347,490
Cities Total :	**0**	**8,786,894**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,851,269**	**19,699,829**	**32,337,992**
Fire Districts												
Earlington FD	0	4,158,264	0	0	0	0	0	0	0	3,578,411	11,209,462	18,946,137
Fire Districts Total :	**0**	**4,158,264**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,578,411**	**11,209,462**	**18,946,137**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Hopkins

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Other Districts												
West Fork of Pond River Watershe	0	18,761	0	0	0	0	0	0	0	56	185,773	204,590
Other Districts Total :	**0**	**18,761**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**56**	**185,773**	**204,590**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Jefferson

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Jefferson County	0	431,344,461	0	0	0	0	0	0	0	2,518,120	58,893,343	492,755,924
Schools												
Common School	0	431,344,461	0	0	0	0	0	0	0	2,518,120	58,893,343	492,755,924
Schools Total :	**0**	**431,344,461**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,518,120**	**58,893,343**	**492,755,924**
Cities												
Louisville-Urban Services District	0	410,244,720	0	0	0	0	0	0	0	2,330,259	58,350,094	470,925,072
Cities Total :	**0**	**410,244,720**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,330,259**	**58,350,094**	**470,925,072**
Fire Districts												
Lake Dreamland FD	0	21,099,742	0	0	0	0	0	0	0	187,861	543,250	21,830,852
Fire Districts Total :	**0**	**21,099,742**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**187,861**	**543,250**	**21,830,852**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Jessamine

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Jessamine County	0	4,076,435	0	0	0	0	0	0	0	364,204	9,962,755	14,403,394
Schools												
Common School	0	4,076,435	0	0	0	0	0	0	0	364,204	9,962,755	14,403,394
Schools Total :	**0**	**4,076,435**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**364,204**	**9,962,755**	**14,403,394**
Cities												
Nicholasville	0	872,188	0	0	0	0	0	0	0	9,498	2,128,567	3,010,253
Wilmore	0	654,661	0	0	0	0	0	0	0	6,532	1,245,585	1,906,778
Cities Total :	**0**	**1,526,849**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16,030**	**3,374,152**	**4,917,031**
Fire Districts												
Jessamine County FD	0	2,549,586	0	0	0	0	0	0	0	348,175	6,588,602	9,486,363
Fire Districts Total :	**0**	**2,549,586**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**348,175**	**6,588,602**	**9,486,363**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

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As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Knox

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Knox County	0	2,699,819	0	0	0	0	0	0	0	369,772	9,267,001	12,336,593
Schools												
Common School	0	2,699,819	0	0	0	0	0	0	0	369,772	9,267,001	12,336,593
Schools Total :	**0**	**2,699,819**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**369,772**	**9,267,001**	**12,336,593**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Larue

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Larue County	0	1,085,916	0	0	0	0	0	0	0	491,018	8,319,426	9,896,360
Schools												
Common School	0	1,085,916	0	0	0	0	0	0	0	491,018	8,319,426	9,896,360
Schools Total :	**0**	**1,085,916**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**491,018**	**8,319,426**	**9,896,360**
Cities												
Hodgenville	0	453,225	0	0	0	0	0	0	0	1,896	1,047,383	1,502,504
Upton	0	44,396	0	0	0	0	0	0	0	87	200,484	244,967
Cities Total :	**0**	**497,621**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,982**	**1,247,867**	**1,747,471**

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Name of Taxpayer Kentucky Utilities Company

County of Location Laurel

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Laurel County	0	6,802,038	0	0	0	0	0	0	0	2,765,190	23,652,771	33,219,999
Schools												
Common School	0	6,330,245	0	0	0	0	0	0	0	2,751,868	23,039,053	32,121,167
East Bernstadt Graded School	0	471,793	0	0	0	0	0	0	0	13,322	613,718	1,098,833
Schools Total :	**0**	**6,802,038**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,765,190**	**23,652,771**	**33,219,999**
Cities												
London	0	2,250,568	0	0	0	0	0	0	0	2,383,934	9,832,443	14,466,946
Cities Total :	**0**	**2,250,568**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,383,934**	**9,832,443**	**14,466,946**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Lee

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Lee County	0	1,183,119	0	0	0	0	0	0	0	196,480	1,511,195	2,890,795
Schools												
Common School	0	1,183,119	0	0	0	0	0	0	0	196,480	1,511,195	2,890,795
Schools Total :	**0**	**1,183,119**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**196,480**	**1,511,195**	**2,890,795**
Cities												
Beattyville	0	288,403	0	0	0	0	0	0	0	4,613	789,348	1,082,364
Cities Total :	**0**	**288,403**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,613**	**789,348**	**1,082,364**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company
County of Location Leslie

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Leslie County	0	0	0	0	0	0	0	0	0	21,021	296,128	317,149
Schools												
Common School	0	0	0	0	0	0	0	0	0	21,021	296,128	317,149
Schools Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21,021**	**296,128**	**317,149**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Letcher

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Letcher County	0	0	0	0	0	0	0	0	0	7,199	101,414	108,613
Schools												
Common School	0	0	0	0	0	0	0	0	0	7,199	101,414	108,613
Schools Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7,199**	**101,414**	**108,613**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Lincoln

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Lincoln County	0	2,370,424	0	0	0	0	0	0	0	229,877	8,265,715	10,866,016
Schools												
Common School	0	2,370,424	0	0	0	0	0	0	0	229,877	8,265,715	10,866,016
Schools Total :	**0**	**2,370,424**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**229,877**	**8,265,715**	**10,866,016**
Cities												
Crab Orchard	0	394,547	0	0	0	0	0	0	0	6,511	418,496	819,553
Hustonville	0	63,065	0	0	0	0	0	0	0	533	271,474	335,071
Stanford	0	841,148	0	0	0	0	0	0	0	101,354	1,473,342	2,415,843
Cities Total :	**0**	**1,298,759**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**108,397**	**2,163,312**	**3,570,468**
Fire Districts												
Lincoln County FD	0	1,071,665	0	0	0	0	0	0	0	121,480	6,102,403	7,295,548
Fire Districts Total :	**0**	**1,071,665**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**121,480**	**6,102,403**	**7,295,548**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Livingston

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Livingston County	0	1,806,710	0	0	0	0	0	0	0	177,846	3,160,684	5,145,240
Schools												
Common School	0	1,806,710	0	0	0	0	0	0	0	177,846	3,160,684	5,145,240
Schools Total :	**0**	**1,806,710**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**177,846**	**3,160,684**	**5,145,240**
Cities												
Salem	0	668,311	0	0	0	0	0	0	0	39,573	527,947	1,235,832
Cities Total :	**0**	**668,311**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39,573**	**527,947**	**1,235,832**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Lyon

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Lyon County	0	1,713,258	0	0	0	0	0	0	0	642,731	6,193,746	8,549,735
Schools												
Common School	0	1,713,258	0	0	0	0	0	0	0	642,731	6,193,746	8,549,735
Schools Total :	**0**	**1,713,258**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**642,731**	**6,193,746**	**8,549,735**
Cities												
Eddyville	0	821,256	0	0	0	0	0	0	0	612,591	1,879,302	3,313,148
Kuttawa	0	147,449	0	0	0	0	0	0	0	1,094	587,928	736,470
Cities Total :	**0**	**968,704**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**613,685**	**2,467,229**	**4,049,619**
Fire Districts												
Lyon County FD #1	0	821,256	0	0	0	0	0	0	0	612,591	1,879,302	3,313,148
Lyon County FD #2	0	147,449	0	0	0	0	0	0	0	1,094	587,928	736,470
Fire Districts Total :	**0**	**968,704**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**613,685**	**2,467,229**	**4,049,619**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Madison

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Madison County	0	14,883,267	0	0	0	0	0	0	0	2,318,650	36,359,127	53,561,044
Schools												
Berea Graded School	0	151,929	0	0	0	0	0	0	0	31,039	448,941	631,909
Common School	0	14,731,338	0	0	0	0	0	0	0	2,287,612	35,910,186	52,929,135
Schools Total :	**0**	**14,883,267**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,318,650**	**36,359,127**	**53,561,044**
Cities												
Berea	0	93,232	0	0	0	0	0	0	0	31,039	366,771	491,042
Richmond	0	7,017,932	0	0	0	0	0	0	0	1,230,579	20,791,001	29,039,512
Cities Total :	**0**	**7,111,164**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,261,618**	**21,157,772**	**29,530,554**

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Commonwealth of Kentucky
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J

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Marion

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Marion County	0	4,225,972	0	0	0	0	0	0	0	979,296	11,930,048	17,135,316
Schools												
Common School	0	4,225,972	0	0	0	0	0	0	0	979,296	11,930,048	17,135,316
Schools Total :	**0**	**4,225,972**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**979,296**	**11,930,048**	**17,135,316**
Cities												
Bradfordville	0	44,140	0	0	0	0	0	0	0	155	193,078	237,373
Lebanon	0	3,009,841	0	0	0	0	0	0	0	196,500	2,382,420	5,588,761
Loretto	0	109,606	0	0	0	0	0	0	0	292	462,715	572,613
Cities Total :	**0**	**3,163,587**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**196,947**	**3,038,213**	**6,398,747**

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Commonwealth of Kentucky
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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company

County of Location Marshall

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Marshall County	0	0	0	0	0	0	0	0	0	3,334	519,131	522,464
Schools												
Common School	0	0	0	0	0	0	0	0	0	3,334	519,131	522,464
Schools Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,334**	**519,131**	**522,464**
Fire Districts												
Gilbertsville FD	0	0	0	0	0	0	0	0	0	1,667	259,565	261,232
Possum Trot Sharpe FD	0	0	0	0	0	0	0	0	0	1,667	259,565	261,232
Fire Districts Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,334**	**519,131**	**522,464**
Other Districts												
Marshall County Garbage Fund	0	0	0	0	0	0	0	0	0	3,334	519,131	522,464
Other Districts Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,334**	**519,131**	**522,464**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company

County of Location Mason

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Mason County	0	4,128,849	0	0	0	0	0	0	0	722,772	15,940,674	20,792,295
Schools												
Common School	0	4,128,849	0	0	0	0	0	0	0	722,772	15,940,674	20,792,295
Schools Total :	**0**	**4,128,849**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**722,772**	**15,940,674**	**20,792,295**
Cities												
Dover	0	37,537	0	0	0	0	0	0	0	86	163,430	201,053
Germantown	0	12,174	0	0	0	0	0	0	0	332	36,043	48,548
Maysville	0	1,845,636	0	0	0	0	0	0	0	674,039	4,841,793	7,361,468
Cities Total :	**0**	**1,895,347**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**674,457**	**5,041,266**	**7,611,070**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location McCracken

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
McCracken County	0	7,608,091	0	0	0	0	0	0	0	1,141,729	7,593,295	16,343,115
Schools												
Common School	0	7,608,091	0	0	0	0	0	0	0	1,141,729	7,593,295	16,343,115
Schools Total :	**0**	**7,608,091**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,141,729**	**7,593,295**	**16,343,115**
Fire Districts												
Concord FD	0	30,437	0	0	0	0	0	0	0	39	132,053	162,529
Hendron FD	0	5,160	0	0	0	0	0	0	0	3,347	0	8,507
Reidland Farley FD	0	613,153	0	0	0	0	0	0	0	703,704	553,649	1,870,506
West McCracken FD	0	6,955,507	0	0	0	0	0	0	0	406,517	1,583,501	8,945,525
Fire Districts Total :	**0**	**7,604,257**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,113,607**	**2,269,204**	**10,987,068**
Other Districts												
Paducah Jr College - Co.	0	7,608,091	0	0	0	0	0	0	0	1,141,729	7,593,295	16,343,115
Other Districts Total :	**0**	**7,608,091**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,141,729**	**7,593,295**	**16,343,115**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location McCreary

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
McCreary County	0	986,919	0	0	0	0	0	0	0	31,582	2,962,950	3,981,452
Schools												
Common School	0	986,919	0	0	0	0	0	0	0	31,582	2,962,950	3,981,452
Schools Total :	**0**	**986,919**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31,582**	**2,962,950**	**3,981,452**
Fire Districts												
Central McCreary FD	0	765,065	0	0	0	0	0	0	0	30,956	2,163,482	2,959,502
South McCreary FD	0	221,854	0	0	0	0	0	0	0	627	799,468	1,021,949
Fire Districts Total :	**0**	**986,919**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31,582**	**2,962,950**	**3,981,452**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location McLean

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
McLean County	0	1,872,377	0	0	0	0	0	0	0	112,334	4,937,536	6,922,247
Schools												
Common School	0	1,872,377	0	0	0	0	0	0	0	112,334	4,937,536	6,922,247
Schools Total :	**0**	**1,872,377**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**112,334**	**4,937,536**	**6,922,247**
Cities												
Calhoun	0	217,298	0	0	0	0	0	0	0	337	535,619	753,254
Island	0	82,997	0	0	0	0	0	0	0	59	213,947	297,003
Livermore	0	345,659	0	0	0	0	0	0	0	32,415	694,180	1,072,254
Sacramento	0	68,965	0	0	0	0	0	0	0	75	207,140	276,181
Cities Total :	**0**	**714,918**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**32,886**	**1,650,886**	**2,398,691**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Mercer

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Mercer County	23,762,000	365,965,962	0	583,423,914	0	0	0	0	0	45,715,212	31,854,445	1,050,721,533
Schools												
Burgin Graded School	0	454,517	0	0	0	0	0	0	0	35,981	8,401,042	8,891,540
Common School	23,762,000	365,511,445	0	583,423,914	0	0	0	0	0	45,679,231	23,453,403	1,041,829,992
Schools Total :	**23,762,000**	**365,965,962**	**0**	**583,423,914**	**0**	**0**	**0**	**0**	**0**	**45,715,212**	**31,854,445**	**1,050,721,533**
Cities												
Burgin	0	13,621	0	0	0	0	0	0	0	531	105,632	119,784
Harrodsburg	0	4,779,548	0	0	0	0	0	0	0	2,404,749	4,342,710	11,527,008
Cities Total :	**0**	**4,793,169**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,405,281**	**4,448,342**	**11,646,791**
Fire Districts												
Mercer County FD	23,762,000	361,172,793	0	583,423,914	0	0	0	0	0	43,309,931	27,406,103	1,039,074,741
Fire Districts Total :	**23,762,000**	**361,172,793**	**0**	**583,423,914**	**0**	**0**	**0**	**0**	**0**	**43,309,931**	**27,406,103**	**1,039,074,741**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Montgomery

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Montgomery County	0	6,030,098	0	0	0	0	0	0	0	996,602	10,892,163	17,918,863
Schools												
Common School	0	6,030,098	0	0	0	0	0	0	0	996,602	10,892,163	17,918,863
Schools Total :	**0**	**6,030,098**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**996,602**	**10,892,163**	**17,918,863**
Cities												
Mt. Sterling	0	2,164,124	0	0	0	0	0	0	0	717,055	3,573,648	6,454,827
Cities Total :	**0**	**2,164,124**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**717,055**	**3,573,648**	**6,454,827**
Fire Districts												
Montgomery County FD	0	3,865,974	0	0	0	0	0	0	0	279,548	7,318,515	11,464,037
Fire Districts Total :	**0**	**3,865,974**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**279,548**	**7,318,515**	**11,464,037**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Muhlenberg

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Muhlenberg County	0	16,733,517	0	0	0	0	0	0	0	2,476,168	29,943,742	49,153,427
Schools												
Common School	0	16,733,517	0	0	0	0	0	0	0	2,476,168	29,943,742	49,153,427
Schools Total :	**0**	**16,733,517**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,476,168**	**29,943,742**	**49,153,427**
Cities												
Central City	0	2,039,700	0	0	0	0	0	0	0	84,987	2,836,284	4,960,970
Drakesboro	0	129,279	0	0	0	0	0	0	0	193	323,524	452,996
Greenville	0	1,166,989	0	0	0	0	0	0	0	1,402,800	2,670,308	5,240,096
Powderly	0	13,949	0	0	0	0	0	0	0	1,979	360,016	375,944
Cities Total :	**0**	**3,349,916**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,489,958**	**6,190,132**	**11,030,006**
Other Districts												
East Fork Pond River Watershed	0	92,864	0	0	0	0	0	0	0	469	329,481	422,814
Mud River Watershed	0	0	0	0	0	0	0	0	0	80	16,806	16,886
Other Districts Total :	**0**	**92,864**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**548**	**346,288**	**439,700**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Nelson

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Nelson County	0	3,650,395	0	0	0	0	0	0	0	247,555	7,315,752	11,213,702
Schools												
Bardstown Graded School	0	412,323	0	0	0	0	0	0	0	16,833	787,102	1,216,259
Common School	0	3,238,072	0	0	0	0	0	0	0	230,721	6,528,649	9,997,442
Schools Total :	**0**	**3,650,395**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**247,555**	**7,315,752**	**11,213,702**
Cities												
Bardstown	0	373,252	0	0	0	0	0	0	0	16,830	729,069	1,119,152
Bloomfield	0	101,675	0	0	0	0	0	0	0	748	429,673	532,096
Fairfield	0	14,253	0	0	0	0	0	0	0	24	83,415	97,692
New Haven	0	376,426	0	0	0	0	0	0	0	1,461	339,630	717,517
Cities Total :	**0**	**865,607**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19,063**	**1,581,786**	**2,466,456**
Fire Districts												
North East FD	0	694,752	0	0	0	0	0	0	0	23,052	1,088,708	1,806,511
Fire Districts Total :	**0**	**694,752**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23,052**	**1,088,708**	**1,806,511**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Nicholas

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Nicholas County	0	824,792	0	0	0	0	0	0	0	77,072	3,197,300	4,099,164
Schools												
Common School	0	824,792	0	0	0	0	0	0	0	77,072	3,197,300	4,099,164
Schools Total :	**0**	**824,792**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**77,072**	**3,197,300**	**4,099,164**
Cities												
Carlisle	0	230,048	0	0	0	0	0	0	0	28,184	208,294	466,526
Cities Total :	**0**	**230,048**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28,184**	**208,294**	**466,526**
Fire Districts												
Nicholas County FD	0	594,744	0	0	0	0	0	0	0	48,888	2,989,006	3,632,638
Fire Districts Total :	**0**	**594,744**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**48,888**	**2,989,006**	**3,632,638**

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PROPERTY SUMMARY BY TAXING JURISDICTION

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OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Ohio

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Ohio County	0	17,008,250	0	0	0	0	0	0	0	455,712	10,116,514	27,580,476
Schools												
Common School	0	17,008,250	0	0	0	0	0	0	0	455,712	10,116,514	27,580,476
Schools Total :	**0**	**17,008,250**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**455,712**	**10,116,514**	**27,580,476**
Cities												
Beaver Dam	0	690,478	0	0	0	0	0	0	0	60,110	1,386,579	2,137,168
Centertown	0	69,838	0	0	0	0	0	0	0	974	314,584	385,396
Hartford	0	530,771	0	0	0	0	0	0	0	86,694	1,495,415	2,112,880
McHenry	0	83,395	0	0	0	0	0	0	0	159	275,607	359,161
Rockport	0	54,872	0	0	0	0	0	0	0	255	223,030	278,158
Cities Total :	**0**	**1,429,354**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**148,193**	**3,695,215**	**5,272,762**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company

County of Location Oldham

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Oldham County	0	2,825,675	0	0	0	0	0	0	0	92,776	8,897,127	11,815,578
Schools												
Common School	0	2,825,675	0	0	0	0	0	0	0	92,776	8,897,127	11,815,578
Schools Total :	**0**	**2,825,675**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**92,776**	**8,897,127**	**11,815,578**
Cities												
Crestwood	0	0	0	0	0	0	0	0	0	0	1,970	1,970
LaGrange	0	842,353	0	0	0	0	0	0	0	26,964	1,038,726	1,908,044
Cities Total :	**0**	**842,353**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26,964**	**1,040,697**	**1,910,014**
Fire Districts												
Ballardsville FD	0	320,642	0	0	0	0	0	0	0	8,685	2,499,393	2,828,720
LaGrange FD	0	2,505,033	0	0	0	0	0	0	0	84,091	6,395,764	8,984,888
South Oldham FD	0	0	0	0	0	0	0	0	0	0	1,970	1,970
Fire Districts Total :	**0**	**2,825,675**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**92,776**	**8,897,127**	**11,815,578**

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Commonwealth of Kentucky
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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Owen

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Owen County	0	1,783,341	0	0	0	0	0	0	0	309,604	5,942,212	8,035,158
Schools												
Common School	0	1,783,341	0	0	0	0	0	0	0	309,604	5,942,212	8,035,158
Schools Total :	**0**	**1,783,341**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**309,604**	**5,942,212**	**8,035,158**
Cities												
Gratz	0	8,579	0	0	0	0	0	0	0	26	52,582	61,187
Owenton	0	624,289	0	0	0	0	0	0	0	47,153	513,996	1,185,438
Sparta	0	81,240	0	0	0	0	0	0	0	70	230,544	311,854
Cities Total :	**0**	**714,108**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**47,249**	**797,121**	**1,558,479**

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OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Owsley

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Owsley County	0	0	0	0	0	0	0	0	0	23,037	342,917	365,954
Schools												
Common School	0	0	0	0	0	0	0	0	0	23,037	342,917	365,954
Schools Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23,037**	**342,917**	**365,954**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Pendleton

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Pendleton County	0	2,623,855	0	0	0	0	0	0	0	265,912	2,348,671	5,238,438
Schools												
Common School	0	2,623,855	0	0	0	0	0	0	0	265,912	2,348,671	5,238,438
Schools Total :	**0**	**2,623,855**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**265,912**	**2,348,671**	**5,238,438**
Cities												
Butler	0	265,355	0	0	0	0	0	0	0	28,949	175,406	469,711
Falmouth	0	182,098	0	0	0	0	0	0	0	57,297	299,668	539,063
Cities Total :	**0**	**447,453**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**86,246**	**475,074**	**1,008,773**
Fire Districts												
North Pendleton FD	0	265,355	0	0	0	0	0	0	0	28,949	175,406	469,711
Fire Districts Total :	**0**	**265,355**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28,949**	**175,406**	**469,711**

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OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company
County of Location Perry

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Perry County	0	0	0	0	0	0	0	0	0	18,718	263,676	282,393
Schools												
Common School	0	0	0	0	0	0	0	0	0	18,718	263,676	282,393
Schools Total :	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18,718**	**263,676**	**282,393**

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PROPERTY SUMMARY BY TAXING JURISDICTION

J

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

Name of Taxpayer Kentucky Utilities Company
County of Location Pulaski

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Pulaski County	0	7,755,438	0	0	0	0	0	0	0	1,239,902	19,021,733	28,017,073
Schools												
Common School	0	4,668,997	0	0	0	0	0	0	0	588,751	12,911,028	18,168,777
Science Hill Graded School	0	210,084	0	0	0	0	0	0	0	73,342	604,760	888,187
Somerset Graded School	0	2,876,356	0	0	0	0	0	0	0	577,809	5,505,945	8,960,110
Schools Total :	**0**	**7,755,438**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,239,902**	**19,021,733**	**28,017,073**
Cities												
Burnside	0	245,162	0	0	0	0	0	0	0	489	900,738	1,146,389
Eubank	0	54,929	0	0	0	0	0	0	0	180	200,602	255,712
Ferguson	0	294,976	0	0	0	0	0	0	0	2,102	362,340	659,418
Science Hill	0	146,053	0	0	0	0	0	0	0	71,833	376,222	594,108
Somerset	0	2,876,356	0	0	0	0	0	0	0	577,809	5,505,945	8,960,110
Cities Total :	**0**	**3,617,476**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**652,413**	**7,345,847**	**11,615,736**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company

County of Location Robertson

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Robertson County	0	132,733	0	0	0	0	0	0	0	23,950	927,564	1,084,246
Schools												
Common School	0	132,733	0	0	0	0	0	0	0	23,950	927,564	1,084,246
Schools Total :	**0**	**132,733**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23,950**	**927,564**	**1,084,246**
Cities												
Mt. Olivet	0	43,805	0	0	0	0	0	0	0	151	184,962	228,918
Cities Total :	**0**	**43,805**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**151**	**184,962**	**228,918**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company
County of Location Rockcastle

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Rockcastle County	0	1,660,305	0	0	0	0	0	0	0	199,246	5,082,048	6,941,600
Schools												
Common School	0	1,660,305	0	0	0	0	0	0	0	199,246	5,082,048	6,941,600
Schools Total :	**0**	**1,660,305**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**199,246**	**5,082,048**	**6,941,600**
Cities												
Brodhead	0	154,767	0	0	0	0	0	0	0	504	536,857	692,128
Livingston	0	25,235	0	0	0	0	0	0	0	89	266,704	292,028
Mt. Vernon	0	246,788	0	0	0	0	0	0	0	2,063	1,186,757	1,435,609
Cities Total :	**0**	**426,790**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,657**	**1,990,318**	**2,419,765**

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OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

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Name of Taxpayer Kentucky Utilities Company

County of Location Rowan

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Rowan County	0	3,298,387	0	0	0	0	0	0	0	350,486	5,309,147	8,958,021
Schools												
Common School	0	3,298,387	0	0	0	0	0	0	0	350,486	5,309,147	8,958,021
Schools Total :	**0**	**3,298,387**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**350,486**	**5,309,147**	**8,958,021**
Cities												
Lakeview	0	27,430	0	0	0	0	0	0	0	5,296	211,183	243,909
Morehead	0	2,234,046	0	0	0	0	0	0	0	277,625	1,898,464	4,410,135
Cities Total :	**0**	**2,261,475**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**282,921**	**2,109,648**	**4,654,043**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company
County of Location Russell

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Russell County	0	2,155,473	0	0	0	0	0	0	0	78,484	5,518,053	7,752,010
Schools												
Common School	0	2,155,473	0	0	0	0	0	0	0	78,484	5,518,053	7,752,010
Schools Total :	**0**	**2,155,473**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**78,484**	**5,518,053**	**7,752,010**
Cities												
Jamestown	0	1,266,009	0	0	0	0	0	0	0	27,760	1,379,454	2,673,223
Russell Springs	0	392,009	0	0	0	0	0	0	0	3,373	2,035,993	2,431,375
Cities Total :	**0**	**1,658,018**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31,132**	**3,415,447**	**5,104,597**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Scott

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
Scott County	0	18,168,810	0	0	3,111,028	0	0	0	0	2,829,596	30,557,953	54,667,386
Schools												
Common School	0	18,168,810	0	0	3,111,028	0	0	0	0	2,829,596	30,557,953	54,667,386
Schools Total :	**0**	**18,168,810**	**0**	**0**	**3,111,028**	**0**	**0**	**0**	**0**	**2,829,596**	**30,557,953**	**54,667,386**
Cities												
Georgetown	0	6,375,594	0	0	3,054,278	0	0	0	0	849,772	11,925,792	22,205,436
Sadieville	0	54,828	0	0	0	0	0	0	0	196	826,689	881,713
Stamping Ground	0	738,954	0	0	0	0	0	0	0	743	325,422	1,065,119
Cities Total :	**0**	**7,169,376**	**0**	**0**	**3,054,278**	**0**	**0**	**0**	**0**	**850,710**	**13,077,903**	**24,152,267**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Shelby

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	Total Property
Shelby County	0	15,263,626	0	0	0	0	0	0	0	10,589,201	47,239,389	73,092,216
Schools												
Common School	0	15,263,626	0	0	0	0	0	0	0	10,589,201	47,239,389	73,092,216
Schools Total :	**0**	**15,263,626**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10,589,201**	**47,239,389**	**73,092,216**
Cities												
Pleasureville-Shelby Co.	0	5,493	0	0	0	0	0	0	0	24	26,388	31,905
Shelbyville	0	3,268,049	0	0	0	0	0	0	0	692,960	7,593,352	11,554,361
Simpsonville	0	9,284,615	0	0	0	0	0	0	0	9,613,202	23,422,667	42,320,484
Cities Total :	**0**	**12,558,156**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10,306,186**	**31,042,408**	**53,906,751**
Fire Districts												
Bagdad FD	0	207,822	0	0	0	0	0	0	0	583	1,047,743	1,256,148
Shelby Suburban FD	0	5,200,987	0	0	0	0	0	0	0	963,776	18,891,339	25,056,102
Simpsonville FD	0	9,657,739	0	0	0	0	0	0	0	9,623,892	26,424,204	45,705,836
US 60 FD	0	152,368	0	0	0	0	0	0	0	746	672,056	825,170
Waddy FD	0	44,710	0	0	0	0	0	0	0	204	204,047	248,961
Fire Districts Total :	**0**	**15,263,626**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10,589,201**	**47,239,389**	**73,092,2[illegible]**

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PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company

County of Location Spencer

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Spencer County	0	1,254,345	0	0	0	0	0	0	0	99,643	3,801,683	5,155,671
Schools												
Common School	0	1,254,345	0	0	0	0	0	0	0	99,643	3,801,683	5,155,671
Schools Total :	**0**	**1,254,345**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**99,643**	**3,801,683**	**5,155,671**
Cities												
Taylorsville	0	525,552	0	0	0	0	0	0	0	60,308	524,905	1,110,766
Cities Total :	**0**	**525,552**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60,308**	**524,905**	**1,110,766**
Fire Districts												
Spencer Co. FD	0	728,793	0	0	0	0	0	0	0	39,335	3,276,778	4,044,906
Fire Districts Total :	**0**	**728,793**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39,335**	**3,276,778**	**4,044,906**

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Name of Taxpayer Kentucky Utilities Company

County of Location Taylor

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Taylor County	0	2,658,005	0	0	0	0	0	0	0	769,455	5,496,152	8,923,612
Schools												
Campbellsville Graded School	0	1,279,068	0	0	0	0	0	0	0	571,408	4,169,504	6,019,980
Common School	0	1,378,937	0	0	0	0	0	0	0	198,046	1,326,648	2,903,632
Schools Total :	**0**	**2,658,005**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**769,455**	**5,496,152**	**8,923,612**
Cities												
Campbellsville	0	1,230,978	0	0	0	0	0	0	0	571,049	3,826,116	5,628,142
Cities Total :	**0**	**1,230,978**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**571,049**	**3,826,116**	**5,628,142**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Trimble

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Trimble County	15,415,371	639,575,397	0	167,552,797	0	0	0	0	0	51,108,612	4,982,033	878,634,210
Schools												
Common School	15,415,371	639,575,397	0	167,552,797	0	0	0	0	0	51,108,612	4,982,033	878,634,210
Schools Total :	**15,415,371**	**639,575,397**	**0**	**167,552,797**	**0**	**0**	**0**	**0**	**0**	**51,108,612**	**4,982,033**	**878,634,210**
Cities												
Bedford	0	80,637	0	0	0	0	0	0	0	168	243,652	324,457
Milton	0	35,094	0	0	0	0	0	0	0	37	90,155	125,287
Cities Total :	**0**	**115,732**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**205**	**333,807**	**449,744**

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OPERATING AND NONOPERATING PROPERTY

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Name of Taxpayer Kentucky Utilities Company

County of Location Union

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Union County	0	5,360,071	0	0	0	0	0	0	0	4,605,101	12,830,894	22,796,067
Schools												
Common School	0	5,360,071	0	0	0	0	0	0	0	4,605,101	12,830,894	22,796,067
Schools Total :	**0**	**5,360,071**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,605,101**	**12,830,894**	**22,796,067**
Cities												
Morganfield	0	2,084,622	0	0	0	0	0	0	0	4,385,967	4,496,672	10,967,262
Sturgis	0	646,085	0	0	0	0	0	0	0	42,920	1,061,471	1,750,476
Uniontown	0	168,024	0	0	0	0	0	0	0	273	611,415	779,712
Waverly	0	95,395	0	0	0	0	0	0	0	1,748	242,261	339,404
Cities Total :	**0**	**2,994,126**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,430,908**	**6,411,819**	**13,836,853**

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company

County of Location Washington

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Washington County	0	862,299	0	0	0	0	0	0	0	345,441	6,258,401	7,466,141
Schools												
Common School	0	862,299	0	0	0	0	0	0	0	345,441	6,258,401	7,466,141
Schools Total :	**0**	**862,299**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**345,441**	**6,258,401**	**7,466,141**
Cities												
Springfield	0	798,002	0	0	0	0	0	0	0	9,633	1,822,683	2,630,318
Cities Total :	**0**	**798,002**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9,633**	**1,822,683**	**2,630,318**

Attachment to Response to KIUC-1 Question No. 23
Page 86 of 220
Garrett

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Webster

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Webster County	0	2,676,404	0	0	0	0	0	0	0	148,852	6,433,019	9,258,274
Schools												
Common School	0	2,676,404	0	0	0	0	0	0	0	148,852	6,433,019	9,258,274
Schools Total :	**0**	**2,676,404**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**148,852**	**6,433,019**	**9,258,274**
Cities												
Clay	0	154,871	0	0	0	0	0	0	0	16,291	257,129	428,291
Dixon	0	123,607	0	0	0	0	0	0	0	35,435	475,725	634,768
Providence	0	355,195	0	0	0	0	0	0	0	5,457	662,847	1,023,499
Sebree	0	329,847	0	0	0	0	0	0	0	595	614,450	944,892
Slaughters	0	36,417	0	0	0	0	0	0	0	70	126,964	163,451
Cities Total :	**0**	**999,937**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**57,848**	**2,137,115**	**3,194,900**
Ambulance Districts												
Webster Co. Ambulance	0	2,321,208	0	0	0	0	0	0	0	143,395	5,770,172	8,234,775
Ambulance Districts Total :	**0**	**2,321,208**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**143,395**	**5,770,172**	**8,234,775**

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Whitley

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Whitley County	0	3,321,008	0	0	0	0	0	0	0	347,760	6,532,160	10,200,928
Schools												
Common School	0	2,399,453	0	0	0	0	0	0	0	337,762	3,862,895	6,600,109
Corbin Graded School	0	12,823	0	0	0	0	0	0	0	46	115,988	128,857
Williamsburg Graded School	0	908,732	0	0	0	0	0	0	0	9,952	2,553,277	3,471,961
Schools Total :	**0**	**3,321,008**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**347,760**	**6,532,160**	**10,200,928**
Cities												
Corbin	0	0	0	0	0	0	0	0	0	33	73,962	73,995
Williamsburg	0	830,451	0	0	0	0	0	0	0	9,498	2,347,108	3,187,057
Cities Total :	**0**	**830,451**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9,531**	**2,421,070**	**3,261,051**

Attachment to Response to KIUC-1 Question No. 23

Garrett

61A200(J) (08-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY SUMMARY BY TAXING JURISDICTION

OPERATING AND NONOPERATING PROPERTY

As of December 31, 2015

J

Name of Taxpayer Kentucky Utilities Company
County of Location Woodford

Name of Taxing Jurisdiction	State Tax Only							State and Local Tax				Total Property
	Manufacturers Raw Materials	Manufacturing Machinery	Radio-Television-Telephonic Equipment	Pollution Control Equipment	Foreign Trade Zone	Recycling Equipment	IRB Property	Inventory In - Transit	Business Inventory for Resale	Real Estate Owned and Leased	Tangible Personalty Owned and Leased	
Woodford County	0	6,934,575	0	0	0	0	0	0	0	1,847,490	25,951,359	34,733,424
Schools												
Common School	0	6,934,575	0	0	0	0	0	0	0	1,847,490	25,951,359	34,733,424
Schools Total :	**0**	**6,934,575**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,847,490**	**25,951,359**	**34,733,424**
Cities												
Midway	0	220,837	0	0	0	0	0	0	0	33,049	1,620,650	1,874,535
Versailles	0	1,331,754	0	0	0	0	0	0	0	355,434	1,718,184	3,405,372
Cities Total :	**0**	**1,552,591**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**388,483**	**3,338,834**	**5,279,907**
Fire Districts												
Woodford County FD	0	5,381,984	0	0	0	0	0	0	0	1,459,008	22,612,525	29,453,517
Fire Districts Total :	**0**	**5,381,984**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,459,008**	**22,612,525**	**29,453,517**
Company Total :	**98,514,261**	**2,549,398,939**	**0**	**1,972,542,562**	**8,353,166**	**0**	**0**	**0**	**0**	**257,256,228**	**1,128,092,042**	**6,014,157,198**

ELECTRIC LIGHT AND POWER CORPORATIONS

A STATEMENT

Showing the Value of Real and Tangible Personal Property of Electric Light and Power Corporations (including Electric Suppliers) in the Commonwealth of Virginia, assessed as of the beginning of the first day of January 2016, pursuant to Title 58.1, Chapter 26, Article 2, of the Code of Virginia.

NAME OF COMPANY (Name and address shown in parentheses is the officer of the company in charge of the settlement of taxes.) LOCATION OF PROPERTY CITY, COUNTY, TOWN AND DISTRICT	1. Value of land and improvements	2. Value of generating equipment	3. Value of station equipment, transmission and distribution	4,5. Value of overhead lines, transmission and distribution	6. Value of underground conduit, conductors, and devices	7. Value of line transformers and services	8. Value of meters and installations and property on customers' premises	9. Value of street lighting and signal systems	10. Value of automobiles and trucks	11. Value of general plant equipment	12. Value of material and supplies / Plant under construction	Total value of all property	Value of merchants' capital
Kentucky Utilities Company d/b/a Old Dominion Power Company (Chad Clements, Manager, Tax Accounting & 220 West Main Street, P.O. Box 32010, Louisville, KY 40202)													
NORTON CITY:	1,110,573	0	1,995,328	5,314,817	1,274,212	951,023	179,507	606,496	0	162,280	1,083,795	12,678,031	0
DICKENSON COUNTY:													
ALL DISTRICTS	0	0	2,237	343,066	17,956	54,048	12,069	7,633	0	1,292	10,113	448,414	0
LEE COUNTY:													
JONESVILLE DISTRICT	9,000	0	0	713,505	387,036	148,922	29,817	10,298	0	2,914	32,525	1,334,017	0
ROCKY STATION DISTRICT	836,114	0	6,059,861	9,366,228	18,883	470,211	72,235	23,429	0	25,656	373,377	17,245,994	0
ROSE HILL DISTRICT	39,838	0	64,188	2,920,775	160,569	481,850	79,326	41,890	0	16,958	104,061	3,909,455	0
WHITE SHOALS DISTRICT	0	0	0	17,049	5,207	2,645	0	4,703	0	659	432	30,695	0
YOKUM STATION DISTRICT	39,591	0	100,763	2,149,805	17,184	174,380	39,276	20,125	0	8,008	22,254	2,571,386	0
JONESVILLE, TOWN OF	31,907	0	115,134	457,146	10,107	164,567	23,891	55,760	0	1,207	61,970	921,689	0
PENNINGTON GAP, TOWN OF	180,246	0	28,847	984,350	22,767	361,770	52,157	244,191	0	38,689	114,682	2,027,699	0
ST. CHARLES, TOWN OF	3,961	0	30,664	198,977	5,207	36,872	3,666	23,748	0	865	7,524	311,484	0
TOTAL LEE COUNTY	1,140,657	0	6,399,457	16,807,835	626,960	1,841,217	300,368	424,144	0	94,956	716,825	28,352,419	0

ELECTRIC LIGHT AND POWER CORPORATIONS - CONTINUED

NAME OF COMPANY (Name and address shown in parentheses is the officer of the company in charge of the settlement of taxes.) LOCATION OF PROPERTY CITY, COUNTY, TOWN AND DISTRICT	1. Value of land and improvements	2. Value of generating equipment	3. Value of station equipment, transmission and distribution	4,5. Value of overhead lines, transmission and distribution	6. Value of underground conduit, conductors, and devices	7. Value of line transformers and services	8. Value of meters and installations and property on customers' premises	9. Value of street lighting and signal systems	10. Value of automobiles and trucks	11. Value of general plant equipment	12. Value of material and supplies / Plant under construction	Total value of all property	Value of merchants' capital
Kentucky Utilities Company Continued													
RUSSELL COUNTY:													
ALL DISTRICTS	0	0	0	1,711,002	20,389	433,924	68,788	40,899	0	4,114	68,981	2,348,097	0
ST. PAUL, TOWN OF	0	0	0	112,472	14,317	11,575	3,849	37,528	0	643	1,612	181,996	0
TOTAL RUSSELL COUNTY	0	0	0	1,823,474	34,706	445,499	72,637	78,427	0	4,757	70,593	2,530,093	0
SCOTT COUNTY:													
ALL DISTRICTS	0	0	0	999,616	3,533	5,964	1,986	1,174	0	1,237	1,640	1,015,150	0
WISE COUNTY:													
GLADEVILLE DISTRICT	277,910	0	529,871	6,543,425	328,211	1,295,578	118,385	90,379	0	207,174	185,123	9,576,056	0
LIPPS DISTRICT	235,507	0	2,948,492	10,472,814	557,761	837,958	181,224	134,565	0	24,848	186,445	15,579,614	0
RICHMOND DISTRICT	181,748	0	1,843,912	6,658,554	156,351	745,515	116,172	25,791	0	13,522	502,115	10,243,680	0
APPALACHIA, TOWN OF	17,571	0	364,521	711,409	50,788	247,794	32,900	128,141	0	2,732	129,939	1,685,795	0
BIG STONE GAP, TOWN OF	305,211	0	399,497	1,991,995	195,794	650,680	105,430	237,073	0	49,791	93,260	4,028,731	0
COEBURN, TOWN OF	3,000	0	0	1,007,925	57,094	311,821	47,302	199,693	0	10,416	34,254	1,671,505	0
ST. PAUL, TOWN OF	39,179	0	712,916	662,759	105,718	221,876	19,730	41,979	0	10,875	82,779	1,897,811	0
WISE, TOWN OF	25,493	0	434,572	1,449,500	272,418	485,002	65,574	217,574	0	24,572	42,991	3,017,696	0
TOTAL WISE COUNTY	1,085,619	0	7,233,781	29,498,381	1,724,135	4,796,224	686,717	1,075,195	0	343,930	1,256,906	47,700,888	0
Totals	3,336,849	0	15,630,803	54,787,189	3,681,502	8,093,975	1,253,284	2,193,069	0	608,452	3,139,872	92,724,995	0

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF THE STATE CORPORATION COMMISSION

Richmond, Va.

This is to certify that the foregoing is a true copy of the assessment made for the year 2016 by the State Corporation Commission of Virginia of the real and personal property of electric light and power corporations and electric suppliers as of the beginning of the first day of January 2016.

Teste:

Joel H. Peck

Clerk of the Commission

To the

Comptroller;

President or proper officer of each company;

Governing bodies of each County, City, and Town;

Commissioners of the Revenue

The foregoing certified copy of the assessments made by the State Corporation Commission of Virginia for the tax year 2016 is sent to you in accordance with the provisions of Chapter 26 of Title 58.1 of the Code of Virginia.

Respectfully,

Joel H. Peck

Clerk of the Commission

2016

PROPERTY

TAX

BILLS

PAID

61A255 (1-06)
Commonwealth of Kentucky

PUBLIC SERVICE SECTION
PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2014 Taxes

Bill No. 1501-19
GNC: 005225 Type Co: EU
DATE: JANUARY 7, 2016

RETURN TAX PAYMENT TO SHERIFF:

Fred Shortridge
Montgomery County Sheriff Ph 859-498-8704
1 Court St
Mt Sterling Kentucky 40353
County Clerk CHRIS COCKRELL
Telephone Number 859-498-8700

KENTUCKY UTILITIES CO

C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232-2010

Name of District County/Schools/Specials	Assessed Value	Real Estate Rate Per $100 Value	Multi-Plier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-Plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE RATE-COUNTY	697,524.00	0.00073		509.19					509.19
REAL ESTATE RATE-SCHOOL	697,524.00	0.0049		3,417.87	-				3,417.87
TANGIBLE RATE-COUNTY					10,118,710.00	0.00083		8,398.53	8,398.53
TANGIBLE RATE - SCHOOL					10,118,710.00	0.00492		49,784.05	49,784.05
LIBRARY	697,524.00	0.00064		446.42	10,118,710.00	0.001086		10,988.92	11,435.34
HEALTH	697,524.00	0.0005		348.76	10,118,710.00	0.0005		5,059.36	5,408.12
EXTENSION	697,524.00	0.00052		362.71	10,118,710.00	0.001102		11,150.82	11,513.53
AMBULANCE	697,524.00	0.00069		481.29	10,118,710.00	0.001		10,118.71	10,600.00
COUNTY FIRE DISTRICT	239,834.00	0.001		239.83	6,898,045.00	0.001		6,898.05	7,137.88
									-
									-
									-
									-
					5,806.07			102,398.44	108,204.51
				Important: See Reverse				Total District Tax	108,204.51

RECEIVED
JAN 15 2016
TAX DEPT.

City of Lawrenceburg
P. O. Box 290
Lawrenceburg, Kentucky 40342

Invoice No. 1

INVOICE

Customer

Name KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232

Phone

Misc

Date 1/12/2016
Order No.

Rep
FOB

Qty	Description	Unit Price	TOTAL
	TOTAL TAX DUE UPON RECEIPT		$13,486.22
	If you have any questions, please contact Julia Atkins At (502)839-5372 ext 12		

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JAN 15 2016
TAX DEPT.

ommonwealth of Kentucky
EPARTMENT OF REVENUE

PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

GNO
DATE
TYPE: EU

eturn Tax Payment to Sheriff

SON COUNTY SHERIFF
8 SOUTH MAIN STREET
WRENCEBURG, KY 40342
ounty Clerk JASON DENNY
elephone 502-839-3041

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORP TAX DEPT
P.O. BOX 32010
LOUISVILLE KY 40232 2010

ame of District ounty/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
AL ESTATE	CNTY	146,474.00	0.1300		190.42		0.1368			190.42
AL ESTATE	EXT	146,474.00	0.0140		20.51		0.0140			20.51
AL ESTATE	HLTH	146,474.00	0.0300		43.94		0.0300			43.94
AL ESTATE	LIB	146,474.00	0.0840		123.04		0.0840			123.04
AL ESTATE	SCHL	146,474.00	0.5860		858.34		0.5860			858.34
AL ESTATE FIRE	FIRE	64,941.00	0.0690		44.81		0.0690			44.81
NGIBLE	CNTY		0.1300			8,357,083.00	0.1368		11,432.49	11,432.49
NGIBLE	EXT		0.0140			8,357,083.00	0.0140		1,169.99	1,169.99
NGIBLE	HLTH		0.0300			8,357,083.00	0.0300		2,507.12	2,507.12
NGIBLE	LIB		0.0840			8,357,083.00	0.0840		7,019.95	7,019.95
NGIBLE	SCHL		0.5860			8,357,083.00	0.5860		48,972.51	48,972.51
NGIBLE FIRE	FIRE		0.0690			4,023,026.00	0.0690		2,775.89	2,775.89

igned Jason D
County Clerk

Total Due: 75,159.01

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JAN 15 2016
TAX DEPT.

JAN 2016

FRANCHISE TAX BILL   PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

2015

TAX DISTRICT C	RATE	TAXABLE ASSESSMENT	TAX
-COUNTY - REA	.1380	3813	5.26
CO-COUNTY - TAN	.1530	1973157	3,018.93
CO-LIBRARY - RE	.0290	3813	1.10
CO-LIBRARY - TA	.0254	1973157	501.18
CO-EXTENSION -	.0160	3813	.61
CO-EXTENSION -	.0167	1973157	329.51
OTHBARREN SCHOO	.6420	1883	12.08
OTHBARREN SCHOO	.6420	859896	5,520.53
OTHCAVERNA SCHO	.7300	1930	14.08
OTHCAVERNA SCHO	.7300	1113261	8,126.80
		GROSS TAX	17,530.08

ASMT YR:2015 ACCOUNT 005225 - BILL 15-0033

DESCRIPTION

COMPANY TYPE EU

AMOUNT DUE IF PAID:

BY	2/12/16	17,530.08
BY	3/15/16	18,406.58
AFTER	3/15/16	21,211.40

ADVERTISING

HOW PAID......
CHECK/CASH....
RECEIVED BY...
DATE PAID.....
AMOUNT PAID...
REFUND AMOUNT.

KENTUCKY UTILITIES CO
P.O. BOX 32010
LOUISVILLE KY 40232-2010

ORIGINAL TAX	ADJUSTED TAX	ADJ DATE
.00	17,530.08	1/12/16

Remit Payment To:
Barren County Sheriff's Office
117-1B North Public Square
Glasgow, KY 42141

RECEIVED
JAN 15 2016
TAX DEPT.

BATH Co.

Commonwealth of Kentucky

Property Tax Statement-Public Service Company

Return payment to:
Sheriff John Tuffy Snedegar
PO Box 95
Owingsville, KY 40360
606-674-2931

GNC:	5225	**Account #**	0
Type Code:	EU	**BILL 2016-2**	0
		DATE 1-11-2016	

Assessent for 2014 Taxes

0 KY UTILITIES CO	**Payment Instructions**

Tax Entity	Rate	Assessent	County Tax	School Tax	Special Tax
Total Real Estate					$1,138.82
Total Tangible					$47,613.69
			$0.00	$0.00	$48,752.51

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JAN 13 2016
TAX DEPT.

Signed: ______________ County Clerk

Payment Received By: ______________ Sheriff

Date: ______________

Deputy: ______________

Total Tax	**$48,752.51**
Total Due if Paid By:	
	(2% discount)
Total Due if Paid By:	
Total Due If Paid By:	
	(5% Penalty)
Total Due After 90 Days Plus Interest:	

61A255 (1-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 20 15 Taxes

Bill No. 6

GNC No. EU Type Co. 005225

Date JANUARY 11 20 16

Make Payment To: TODD PATE SHERIFF

Return Tax Payment To:
TODD PATE, SHERIFF
BRECKINRIDGE COUNTY
PO BOX 127
HARDINSBURG KY 40143
Telephone Number 270-756-2246 JILL IRWIN

Name KENTUCKY UTILITIES CO
Name C/O GREG MEIMAN CORPORATE TAX DEPT
Address PO BOX 32010
Address
City, State, ZIP Code LOUISVILLE KY 40232-2010

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
COUNTY	717,494	.1120		803.59	8,584,849	.1310		11246.15	12049.74
LIBRARY	717,494	.0890		638.57	8,584,849	.0919		7889.48	8528.05
EXTENSION SERVICE	717,494	.0420		301.35	8,584,849	.0837		7185.52	7486.87
SOIL	717,494	.0100		71.75					71.75
HEALTH	717,494	.0310		222.42	8,584,849	.0310		2661.30	2883.72
SCHOOL	717,494	.5420		3888.82	8,584,849	.5420		46529.88	50418.70

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JAN 15 2016
TAX DEPT.

Important: See Reverse

Total District Tax $ 81438.83

Attachment to Response to KIUC-1 Question No. 23
Page 99 of 220
Garrett

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO. ...00005
GNC NO. 5225
DATE 01/12/2016
TYPE: EU

Return Tax Payment to Sheriff
ID GREENWELL
BULLITT COUNTY
PO BOX 205
SHEPHERDSVILLE, KY 40165
County Clerk KEVIN MOONEY
Telephone 502-543-2513

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
P.O. BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
ZONETON FIRE DIS	FD4	289,405.00	0.1000		289.40		0.1000			289.40
TANGIBLES	CNTY		0.0960			1,036,682.00	0.0999		1,035.65	1,035.65
TANGIBLES	EXT		0.0100			1,036,682.00	0.0108		111.96	111.96
TANGIBLES	HLTH		0.0240			1,036,682.00	0.0240		248.80	248.80
TANGIBLES	LIB		0.0690			1,036,682.00	0.0690		715.31	715.31
TANGIBLES	SCHL		0.6620			1,036,682.00	0.6620		6,862.83	6,862.83
TANG ZONETON FI	FD4		0.1000			357,577.00	0.1000		357.58	357.58
REAL ESTATE	CNTY	290,583.00	0.0960		278.96		0.0999			278.96
REAL ESTATE	EXT	290,583.00	0.0100		29.06		0.0108			29.06
REAL ESTATE	HLTH	290,583.00	0.0240		69.74		0.0240			69.74
REAL ESTATE	LIB	290,583.00	0.0690		200.50		0.0690			200.50
REAL ESTATE	SCHL	290,583.00	0.6620		1,923.66		0.6620			1,923.66

Signed Kevin Mooney
County Clerk

Total Due: 12,123.45 √

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61A255 (12-11)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No. 115225

GNC No. 5225 Type Co EU

Date 1/12/16

Make Payment To : CAMPBELL CO SHERIFF

Return Tax Payment To :
CAMPBELL CO SHERIFF
1098 MONMOUTH ST RM 216
NEWPORT, KY 41071

Telephone Number 859-292-3833

Name KENTUCKY UTILITIES CO
Name C/O GREG MEIMAN CORPORATE TAX DEPT
Address
Address PO BOX 32010
City, State, ZIP Code LOUISVILLE, KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
COUNTY	3,180	16.200		5.15	1,098,141	24.300		2,668.48	2,673.63
HEALTH	3,180	2.200		0.70	1,098,141	2.200		241.59	242.29
LIBRARY	3,180	7.700		2.45	1,098,141	9.080		997.11	999.56
EXTENSION	3,180	3.300		1.05	1,098,141	5.470		600.68	601.73
CONSERVATION	3,180	0.280		0.09					0.09
BELLEVUE SCHOOL									
CAMPBELL CO SCHOOL	3,180	63.000		20.03	1,098,141	63.000		6,918.29	6,938.32
DAYTON SCHOOL									
SILVER GROVE SCHOOL									
FIRE DISTRICT #1	3,180	20.000		6.36	1,098,141	20.000		2,196.28	2,202.64
FIRE DISTRICT #2									
FIRE DISTRICT #4									
FIRE DISTRICT #5									
FIRE DISTRICT #6									

Important : See Reverse

Total District Tax $ 13,658.26

Attachment to Response to KIUC-1 Question No. 23
Page 101 of 220
Garrett

Campbell County Sheriff's Office
Mike Jansen
Sheriff

1098 Monmouth Street
Newport, Kentucky 41071
(859) 292-3833
www.campbellcountysheriffky.org

Kentucky Utilities Company
Attn: Greg Meiman – Corp Tax Dept.
P.O. Box 32010
Louisville, KY 40232-2010

2015

COUNTY FRANCHISE PROPERTY TAX BILL

DATE:	**1/12/2016**		
TOTAL TAX DUE:			**13,658.26**
AMOUNT DUE IF PAID BY:			
	2/11/2016	Face Amount	**13,658.26**
PAID AFTER	**2/11/2016**	21% Penalty (see below)	**16,526.49**

PAYMENT INSTRUCTIONS

The enclosed bill is for franchise property taxes. Franchise tax bills are due on the day they are prepared and if payment is not made within 30 days, a 10% penalty, 10% percent Sheriff's add on fee, plus interest will accrue.

Payments should be made to:

Campbell County Sheriff
1098 Monmouth Street, Suite 216
Newport, KY 41071-3429

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Make Check Payable To:
Jerry Coffman
Casey County Sheriff
P.O. Box 100
Liberty, KY 42539

Property Tax Bill

Commonwealth of Kentucky
2015 Casey County Franchise Bill
Today's Date: Tuesday, January 12, 2016

KENTUCKY UTILITIES CO
GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232

Bill Date: January 12, 2016
Bill Number: 005225
Map Number:
PVA Account Number:
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Casey Davis

Assessment:

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	34,647.00	0.0670	23.21
REAL_ESTATE	SCHOOL	34,647.00	0.4540	157.30
REAL_ESTATE	HEALTH	34,647.00	0.0430	14.90
REAL_ESTATE	EXTENSION	34,647.00	0.0187	6.48
REAL_ESTATE	SOIL CONSV	34,647.00	0.0140	4.85
REAL_ESTATE	AMBULANCE	34,647.00	0.0400	13.86
REAL_ESTATE	HOSPITAL	34,647.00	0.0620	21.48
REAL_ESTATE	LIBRARY	34,647.00	0.0870	30.14
TANG_45	COUNTY	2,711,109.00	0.0670	1,816.44
TANG_45	SCHOOL	2,711,109.00	0.4540	12,308.43
TANG_45	HEALTH	2,711,109.00	0.0430	1,165.78
~~'G_45	EXTENSION	2,711,109.00	0.0187	506.98
,G_45	AMBULANCE	2,711,109.00	0.0400	1,084.44
TANG_45	HOSPITAL	2,711,109.00	0.0620	1,680.89
TANG_45	LIBRARY	2,711,109.00	0.1504	4,077.51
			Total Assessment:	**22,912.69**

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY.

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 22,912.69

RECEIVED
JAN 15 2016
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TAX STATEMENT

Assessment for 2015 Taxes, 2015 Tax Year

Bill No. 334
Bill Type Franchise
Account No. 005225
Date January 12, 2016

Return Tax Payment To:
Berl Perdue
Clark County Sheriff
17 Cleveland Avenue
Winchester, KY 40391

Name Kentucky Utilities
Property Address

Mailing Address
PO Box 32010
Louisville, KY 40232

REAL_ESTATE

Tax Category	Assessed Value	Tax Rate	Multiplier	Tax Due
County	$ 1,064,693.00	0.0930	0.0000	$ 990.16
School	$ 1,064,693.00	0.6000	0.0000	$ 6,388.16
Libr	$ 1,064,693.00	0.0710	0.0000	$ 755.93
Health	$ 1,064,693.00	0.0460	0.0000	$ 489.76
EXT	$ 1,064,693.00	0.0290	0.0000	$ 308.76
		Tax Due REAL_ESTATE		$ 8,932.77

TANGIBLE

Tax Category	Assessed Value	Tax Rate	Multiplier	Tax Due
County	$ 16,692,052.00	0.1168	0.0000	$ 19,496.32
School	$ 16,692,052.00	0.6000	0.0000	$ 100,152.31
Libr	$ 16,692,052.00	0.0959	0.0000	$ 16,007.68
Health	$ 16,692,052.00	0.0460	0.0000	$ 7,678.34
EXT	$ 16,692,052.00	0.0433	0.0000	$ 7,227.66
		Tax Due TANGIBLE		$ 150,562.31

Signed

Payment Received By

Date

By

Total Tax: **$159,495.08**

Tax Adjustment Schedule

Period	Start Date	End Date	Amount Due (with fees)
Face	01/13/2016	02/12/2016	**$ 159,495.08**
Penalty	02/13/2016		**$ 192,989.05**

RECEIVED
JAN 15 2016
TAX DEPT.

Make Check Payable To:
Kevin Johnson
Clay Co. Sheriff
102 Richmond Rd
STE 100
nchester, KY 40962

Property Tax Bill

Commonwealth of Kentucky
2015 Clay County Franchise Bill
Today's Date: Monday, January 11, 2016

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORPORATION TAX
DEPT
P.O. BOX 32010
LOUISVILLE, KY 40232-2010

Bill Date: January 11, 2016
Bill Number: 12508
Map Number:
PVA Account Number:
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Michael D Baker

Assessment:

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	90,646.00	0.0880	79.77
REAL_ESTATE	SCHOOL	90,646.00	0.6140	556.57
REAL_ESTATE	EXTENSION	90,646.00	0.0630	57.11
REAL_ESTATE	HEALTH	90,646.00	0.0700	63.45
REAL_ESTATE	SOIL CONS	90,646.00	0.0130	11.78
REAL_ESTATE	LIBRARY	90,646.00	0.0900	81.58
TANG_45	COUNTY	3,521,327.00	0.0880	3,098.77
TANG_45	SCHOOL	3,521,327.00	0.6140	21,620.95
TANG_45	EXTENSION	3,521,327.00	0.1200	4,225.59
TANG_45	HEALTH	3,521,327.00	0.0700	2,464.93
TANG_45	LIBRARY	3,521,327.00	0.1306	4,598.85
			Total Assessment:	**36,859.35**

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY.

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 36,859.35

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If paid by February 11, 2016 pay $ 36,859.35
If paid after February 11, 2016 pay 44,599.82

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 48
GNC NO: 005225
DATE 01/08/2016
TYPE: EU

F... rn Tax Payment to Sheriff
F... MELTON
FRANKLIN COUNTY
P O BOX 5260
FRANKFORT, KY 40602
County Clerk JEFF HANCOCK
Telephone (502) 875-8702

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
P O BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL EST	CNTY	761,142.00	0.1770		1,347.22		0.2350			1,347.22
REAL EST	CONS	761,142.00	0.0090		68.50					68.50
REAL EST	COOP	761,142.00	0.0140		106.56		0.0260			106.56
REAL EST	HLTH	761,142.00	0.0575		437.66		0.0575			437.66
REAL EST	LIB	761,142.00	0.0830		631.75		0.1141			631.75
FRANKLIN COUNT'	SCH2	761,142.00	0.6530		4,970.26		0.6530			4,970.26
TANGIBLE	CNTY		0.1770			11,350,953.00	0.2350		26,674.74	26,674.74
TANGIBLE	COOP		0.0140			11,350,953.00	0.0260		2,951.25	2,951.25
TANGIBLE	HLTH		0.0575			11,350,953.00	0.0575		6,526.80	6,526.80
TANGIBLE	LIB		0.0830			11,350,953.00	0.1141		12,951.44	12,951.44
FRANKLIN COUNT'	SCH2		0.6530			11,350,953.00	0.6530		74,121.72	74,121.72

Signed ____________________
County Clerk

Total Due: 130,787.90

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61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 287
GNC NO: 005225
DATE 01/11/2016
TYPE: EU

rn Tax Payment to Sheriff
DAVIS
GARRARD COUNTY
15 PUBLIC SQ STE #4
LANCASTER KY 40444
County Clerk KEVIN C. MONTGOMERY
Telephone 859 792-3071

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: GREG MEIMAN CORPORATE TAX DEPT.
POB 32030
LOUISVILLE KY 40232

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	8,683,243.00	0.0800		6,946.59		0.1020			6,946.59
REAL ESTATE	EXT	8,683,243.00	0.0380		3,299.63		0.1178			3,299.63
REAL ESTATE	HLTH	8,683,243.00	0.0400		3,473.30		0.0400			3,473.30
REAL ESTATE	LIB	8,683,243.00	0.0670		5,817.77		0.1835			5,817.77
REAL ESTATE	SCHL	8,683,243.00	0.6400		55,572.76		0.6400			55,572.76
REAL ESTATE	SOIL	8,683,243.00	0.0083		720.71					720.71
REAL EST FIRE 1	FIR1	92,485.00	0.0880		81.39		0.0880			81.39
REAL ESTATE N G,	FIR2	8,590,758.00	0.0650		5,583.99		0.0650			5,583.99
CITY OF LANCASTI	CITY	90,480.00	0.1560		141.15		0.2600			141.15
TANGIBLE	CNTY		0.0800			9,844,197.00	0.1020		10,041.08	10,041.08
TANGIBLE	EXT		0.0380			9,844,197.00	0.1178		11,596.46	11,596.46
TANGIBLE	HLTH		0.0400			9,844,197.00	0.0400		3,937.68	3,937.68
TANGIBLE	LIB		0.0670			9,844,197.00	0.1835		18,064.10	18,064.10
TANGIBLE	SCHL		0.6400			9,844,197.00	0.6400		63,002.86	63,002.86
TANGIBLE FIRE 1	FIR1		0.0880			2,480,635.00	0.0880		2,182.96	2,182.96
TANGIBLE NORTH	FIR2		0.0650			7,363,563.00	0.0650		4,786.32	4,786.32
OF LANCASTI	CITY		0.1560			2,482,631.00	0.2600		6,454.84	6,454.84

Signed *Kevin Montgomery*
County Clerk

Total Due: 201,703.59

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Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

DATE: 01/04/2016
TYPE: EU

Return Tax Payment to Sheriff
TIM COONS
TRIMBLE COUNTY SHERIFF
PO BOX 56
BEDFORD KY 40006
County Clerk TINA R BROWNING
Telephone 502-255-7174

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	51,501,775.00	0.0780		40,171.38		0.0780			40,171.38
REAL ESTATE	EXT	51,501,775.00	0.0420		21,630.75		0.0602			21,630.75
REAL ESTATE	HLTH	51,501,775.00	0.0400		20,600.71		0.0400			20,600.71
REAL ESTATE	LIB	51,501,775.00	0.1190		61,287.11		0.1491			61,287.11
REAL ESTATE	SCHL	51,501,775.00	0.6590		339,396.70		0.6590			339,396.70
TANGIBLE	CNTY		0.0780			6,119,048.00	0.0780		4,772.86	4,772.86
TANGIBLE	EXT		0.0420			6,119,048.00	0.0602		3,683.67	3,683.67
TANGIBLE	HLTH		0.0400			6,119,048.00	0.0400		2,447.62	2,447.62
TANGIBLE	LIB		0.1190			6,119,048.00	0.1491		9,123.50	9,123.50
TANGIBLE	SCHL		0.6590			6,119,048.00	0.6590		40,324.53	40,324.53

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JAN 08 2016
TAX DEPT.

Signed Tina R Browning
County Clerk

Total Due: 543,438.83 ✓

Real Estate

Return Payment to:
Sheriff Wayne Wright
Woodford County
103 S.Main Street
Versailles, Ky 40383

PUBLIC SERVICE COMPANY

PROPERTY TAX STATEMENT

Bill No. 005225

Assessment for 2015 Taxes Date 1/11/2016

PAYMENT INSTRUCTIONS

ADDRESS

Name Kentucky Utilities Co
Street C/O Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville KY 40232-2010

RECEIVED
JAN 13 2016
TAX DEPT.

PROPERTY CLASS	Rate Per $100 Value				Assessed Value	County Tax	School Tax	Special Tax
REAL EST RATE	County	0.0700	School	0.6640	$1,850,631.00	$1,295.44	$12,288.19	
TANGIBLE RATE	County	0.0700	School	0.6640		$0.00	$0.00	
Fire		0.0470		0.0470	$1,429,964.00			$672.08
Library		0.0660		0.0660				$1,221.42
Health		0.0200		0.0200				$370.13
Extension		0.0170		0.0180				$314.61
Amount Due or Credit from prior year								
TOTALS BY TAXING DISTRICT						$1,295.44	$12,288.19	$2,578.23

Signed__________ County Clerk

TOTAL TAX.................................... **$16,161.86**

Payment Received by__________ Sheriff

PENALTY (10 PERCENT OF TOTAL TAX IF (NOT PAID WITHIN 30 DAYS........ $1,616.19
(10 PERCENT SHERIFF'S ADD-O $1,616.19

Page 1 of 2

Date_____ BY__________ Deputy

INTEREST (THE TAX INTEREST RATE PER (KRS 131.183 PER ANNUM IF NOT (PAID WITHIN 30 DAYS

TOTAL TAX, PENALTY & INTEREST $0.00

If there is a question regarding this bill, please contact Judie Woolums, Woodford Co Clerk at (859) 873-3421

Tangible

Return Payment to:
Sheriff Wayne Wright
Woodford County
103 S.Main Street
Versailles, Ky 40383

PUBLIC SERVICE COMPANY

PROPERTY TAX STATEMENT

Bill No. 005225

Assessment for 2015 Taxes Date 1/11/2016

PAYMENT INSTRUCTIONS

ADDRESS

Name Kentucky Utilities Co
Street C/O Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville KY 40232-2010

PROPERTY CLASS	Rate Per $100 Value				Assessed Value	County Tax	School Tax	Special Tax
REAL EST RATE	County	0.0700	School	0.6640		$0.00	$0.00	
TANGIBLE RATE	County	0.0700	School	0.6640	$26,760,535.00	$18,732.37	$177,689.95	
Fire		0.0470		0.0470	$23,044,811.00			$10,831.06
Library		0.0660		0.0660				$17,661.95
Health		0.0200		0.0200				$5,352.11
Extension		0.0170		0.0180				$4,816.90
Amount Due or Credit from prior year								
TOTALS BY TAXING DISTRICT						$18,732.37	$177,689.95	$38,662.02

Signed________________ County Clerk

TOTAL TAX... **$235,084.34**

Payment Received by________________ Sheriff

PENALTY (10 PERCENT OF TOTAL TAX IF (NOT PAID WITHIN 30 DAYS........ $23,508.43
(10 PERCENT SHERIFF'S ADD-ON $23,508.43

Date________ BY________________ Deputy

INTEREST (THE TAX INTEREST RATE PER (KRS 131.183 PER ANNUM IF NOT (PAID WITHIN 30 DAYS

TOTAL TAX, PENALTY & INTEREST $0.00

If there is a question regarding this bill, please contact Judie Woolums, Woodford Co Clerk at (859) 873-3421

Page 2 of 2

Total: $251,246.20 ✓

Make Check Payable To:
Norman Chaffins
Grayson County Sheriff
44 Public Square
Leitchfield, KY 42754

Property Tax Bill

Commonwealth of Kentucky
2015 Grayson County Franchise Bill
Today's Date: Monday, January 11, 2016

K... UCKY UTILITIES CO
GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE , KY 40232-2010

Bill Date: January 11, 2016
Bill Number: F15-6
Map Number:
PVA Account Number: 005225
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Sherry Weedman

Assessment:

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	206,465.00	0.0680	140.40
REAL_ESTATE	SCHOOL	206,465.00	0.4900	1,011.68
REAL_ESTATE	EXT_SERV	206,465.00	0.0360	74.33
REAL_ESTATE	HEALTH	206,465.00	0.0260	53.68
REAL_ESTATE	HOSPITAL	206,465.00	0.0450	92.91
REAL_ESTATE	LIBRARY	206,465.00	0.0850	175.50
CANEY CR	CANEY CREEK	11.00	0.0475	0.01
TANG .45	COUNTY	5,829,109.00	0.0790	4,605.00
TANG .45	SCHOOL	5,829,109.00	0.4900	28,562.63
TANG .45	EXT_SERV	5,829,109.00	0.0779	4,540.88
TANG .45	HEALTH	5,829,109.00	0.0300	1,748.73
TANG .45	HOSPITAL	5,829,109.00	0.0500	2,914.55
T .45	LIBRARY	5,829,109.00	0.1601	9,332.40
			Total Assessment:	**53,252.70**

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 53,252.70

RECEIVED
JAN 15 2016
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 93
GNC NO: 005225
DATE 01/11/2016
TYPE: EU

Return Tax Payment to Sheriff
ROBERT BEARD
GREEN COUNTY
203 WEST COURT ST
GREENSBURG, KY 42743
County Clerk BILLY JOE LOWE
Telephone 270-932-5386

Taxpayer Name: KENTUCKY UTILITIES CO.
ATTN:
Address: C/O GREG MEIMAN
CORPORATE TAX DEPT
LOUISVILLE KY 40232-2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	AMB	14,759.00	0.1000		14.76		0.1000			14.76
REAL ESTATE	CEXT	14,759.00	0.0510		7.53		0.0745			7.53
REAL ESTATE	CNTY	14,759.00	0.1070		15.79		0.1070			15.79
REAL ESTATE	HLTH	14,759.00	0.0340		5.02		0.0340			5.02
REAL ESTATE	LIB	14,759.00	0.0830		12.25		0.1700			12.25
REAL ESTATE SCH	SCH1	14,759.00	0.5060		74.68		0.5060			74.68
TANGIBLE	AMB		0.1000			1,727,236.00	0.1000		1,727.24	1,727.24
TANGIBLE	CEXT		0.0510			1,727,236.00	0.0745		1,286.79	1,286.79
TANGIBLE	CNTY		0.1070			1,727,236.00	0.1070		1,848.14	1,848.14
TANGIBLE	HLTH		0.0340			1,727,236.00	0.0340		587.26	587.26
TANGIBLE	LIB		0.0830			1,727,236.00	0.1700		2,936.30	2,936.30
TANGIBLE SCHOO	SCH1		0.5060			1,727,236.00	0.5060		8,739.81	8,739.81

Signed BJ Lowe
County Clerk

Total Due: 17,255.57 √

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TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky

DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT

For County, School or Special Ta

Assessment for **2015** **Taxes**

Bill No. 16-1
GNC 005225
TYPE CO: EU
TYPE 035
Date 1/11/2016

Return Tax Payment to Sheriff:

Shain A. Stephens
Harrison County Sheriff
113 W Pike Street
Cynthiana KY 41031

County Clerk Linda B. Furnish
Telephone Number 859-234-7130

Name	KENTUCKY UTILITIES COMPANY
Name	C/O GREG MEIMAN CORPORATE TAX DEPT
Address	PO BOX 32010
Address	
City, State, ZIP Code	LOUISVILLE KY 40232-2010

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
County	$186,783	0.1020		$190.52	$5,914,049	0.1290		$7,629.12	$7,819.64
School	$186,783	0.4730		$883.48	$5,914,049	0.4730		$27,973.45	$28,856.94
Library	$186,783	0.0700		$130.75	$5,914,049	0.1411		$8,344.72	$8,475.47
Health	$186,783	0.0450		$84.05	$5,914,049	0.0450		$2,661.32	$2,745.37
Extension Service	$186,783	0.0500		$93.39	$5,914,049	0.1009		$5,967.28	$6,060.67
Soil Conservation	$186,783	0.0110		$20.55	$5,914,049	0.0000		$0.00	$20.55
Fire	$39,262	0.0630		$24.74	$3,405,383	0.0630		$2,145.39	$2,170.13

Important: See Reverse

Total District Tax $ $56,148.76

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Attachment to Response to KIUC-1 Question No. 23
Page 113 of 220
Garrett

Make Check Payable To:
Ed Brady
Henderson County Sheriff
20 North Main Street
Suite 112
H 'erson, KY 42420

Property Tax Bill

Commonwealth of Kentucky
2015 Henderson County Franchise Bill
Today's Date: Tuesday, January 12, 2016

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232-2010

Bill Date: January 11, 2016
Bill Number: 22205
Map Number:
PVA Account Number:
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Renesa Abner

Assessment:

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	186,182.00	0.1280	238.31
REAL_ESTATE	SCHOOL	186,182.00	0.5850	1,089.16
REAL_ESTATE	HEALTH	186,182.00	0.0260	48.41
REAL_ESTATE	LIBRARY	186,182.00	0.0870	161.98
REAL_ESTATE	EXT_SERV	186,182.00	0.0290	53.99
TANG_45	COUNTY	4,951,838.00	0.1840	9,111.38
TANG_45	SCHOOL	4,951,838.00	0.5850	28,968.25
TANG_45	HEALTH	4,951,838.00	0.0260	1,287.48
TANG_45	LIBRARY	4,951,838.00	0.1180	5,843.17
TANG_45	EXT_SERV	4,951,838.00	0.0430	2,129.29
			Total Assessment:	**48,931.42**

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY.

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 48,931.42

RECEIVED
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TAX DEPT.

61A255 (12-11)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No. 9

GNC No. 005225 Type Co eu

Date 01/11/2016

Make Payment To :	Russell McCoy, LaRue County Sheriff
Return Tax Payment To :	
LaRue County Sheriff, Russell McCoy	
209 W. High St. Suite 6	
Hodgenville, KY 42748	
Telephone Number	270-358-3120

Name	KENTUCKY UTILITIES CO
Name	C/O GREG MEIMAN CORPORATE TAX DEPT
Address	P.O. BOX 32010
Address	
City, State, ZIP Code	LOUISVILLE, KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
County	439,244	0.2035		893.86	8,762,552	0.2985		26,156.22	27,050.08
School	439,244	0.4500		1,976.60	8,762,552	0.4500		39,431.48	41,408.08
Library	439,244	0.0600		263.55	8,762,552	0.0911		7,982.68	8,246.23
Health	439,244	0.0280		122.99	8,762,552	0.0280		2,453.51	2,576.50
Extension	439,244	0.0430		188.87	8,762,552	0.0781		6,843.55	7,032.42
Upton	293	0.2500		0.73	201,511	0.2500		503.78	504.51

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JAN 15 2016
TAX DEPT.

Important : See Reverse

Total District Tax $ 86,817.82

Attachment to Response to KIUC-1 Question No. 23
Page 115 of 220
Garrett

61A255(1-90)

Commonwealth of Kentucky

For County, School or Special Taxes

RECEIVED
JAN 15 2016
LAW DEPARTMENT

PROPERTY TAX STATEMENT
PUBLIC SERVICE COMPANY

Return Payment To:

Sheriff **Kent Murphy**
County **Lyon**
Address **P O Box 126**
Eddyville, Ky 42038

GNC# 5225

Assessment for 2015 Taxes

Date 1/11/2016

Address:

Name: **KENTUCKY UTILITIES CO**
Street: P O BOX 32010
City: LOUISVILLE,
State: KY
Zip: 40232
ATTN: GREG MEIMAN CORP TAX DEPT

PAYMENT INSTRUCTIONS

This statement for public service company property taxes is due and payable 30 days after notice. **(KRS 136.050 (2))**. No discount is allowable for early payment. If not paid within 30 days, a 10 percent penalty of total tax plus interest at 10 percent annum applies. Make payment to sheriff of county named on statement.

Property Class-Rate Per $ 100				Value	County	School	Special
County- Real Estate	0.1090	School	0.4430	$592,538	$645.87	$2,624.94	********
County -Tangible	0.2147	School	0.4430	$6,351,894	$13,637.52	$28,138.89	********
Library- Real Estate	*********	**********	0.0490	$592,538	**********	***************	$290.34
Library- Tangible	*********	**********	0.049	$6,351,894	**********	***************	$3,112.43
Health - Real Estate	*********	**********	0.0300	$592,538	**********	***************	$177.76
Health - Tangible	*********	**********	0.0300	$6,351,894	**********	***************	$1,905.57
Extension Service - Real Estate		**********	0.0380	$592,538	**********	***************	$225.16
Extension Service - Tangible		**********	0.0600	$6,351,894	**********	***************	$3,811.14
Ambulance - Real Estate		**********	0.0750	$592,538	**********	***************	$444.40
Ambulance - Tangible		********	0.0690	$6,351,894	********	**************	$4,382.81
Fire Districe 1-Real Estate		********	0.0420	$498,758	********	**************	$209.48
Fire District 1-Tangible		********	0.0393	$1,950,864	********	**************	$766.69
Fire District 2-Real Estate		********	0.0790	$1,847	********	**************	$1.46
Fire District 2-Tangible		********	0.0429	$610,977	********	**************	$262.11
Totals By Taxing District		KKKKKKKKKK			**$14,283.38**	**$30,763.83**	**$15,589.35**

Sarah DeFew
County Clerk

Total Tax ***$60,636.57***

Payment Received By: ____________________

Sheriff/Deputy

Date ____________

Penalty ____________
(10 percent of total tax if not paid within 30 days)

Interest ____________
(10 percent per annum if not paid within 30 days)

Total Tax, Penalty, and Interest ____________

!2015522515!

2015 Marion County Franchise Property Tax Statement

Jimmy Clements
Marion County Franchise Sheri

223 N. Spalding Ave
Lebanon, Ky 40033

Bill Number: 522515
District: Regular
Location:
Description: 2015 CERTIFICATION
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

2% If Paid in 30 days	94,697.65
If Paid 31-60 days	96,630.26
5% If Paid 61-90 days	101,461.77
21% If Paid 91-XXX	116,922.62

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 402322010

Amount Enclosed: ______________

Check or Money Order Number: ______________

Detach and return with check payable to Sheriff Jimmy Clements: When paying by mail, include a self-addressed stamped envelope for receipt

2015 Marion County Franchise Property Tax Statement

IF THIS TAX BILL SHOULD BE PAID BY MORTGAGE COMPANY OR NEW OWNER, PLEASE FORWARD TO RESPONSIBLE PARTY PROMPTLY.

Jimmy Clements
Marion County Franchise Sheri

223 N. Spalding Ave
Lebanon, Ky 40033

Bill Number: 522515
District: Regular
Location:
Description: 2015 CERTIFICATION
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

Description	Rate Per $100	Assessed Value	Tax
COUNTY COUNTY REAL EST 2015	0.0860	810,626	697.14
COUNTY COUNTY TANGIBLE 2015	0.1090	11,187,790	12,194.69
SCHOOL SCHOOL REAL EST 2015	0.5500	810,626	4,458.44
SCHOOL SCHOOL TANGIBLE 2015	0.5500	11,187,790	61,532.85
AIR BOARD REAL EST 2015	0.0110	810,626	89.17
AIR BOARD TANGIBLE 2015	0.0110	11,187,790	1,230.66
HEALTH REAL EST 2015	0.0300	810,626	243.19
HEALTH TANGIBLE 2015	0.0300	11,187,790	3,356.34
CO EXT REAL EST 2015	0.0310	810,626	251.29
COUNTY EXT TANGIBLE 2015	0.0515	11,187,790	5,761.71
LIBRARY TANGIBLE 2015	0.0570	11,187,790	6,377.04
LIBRARY REAL EST 2015	0.0540	810,626	437.74

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TAX DEPT.

Total Tax	96,630.26
Amount Due if:	
2% If Paid in 30 days	94,697.65
If Paid 31-60 days	96,630.26
5% If Paid 61-90 days	101,461.77
21% If Paid 91-XXX	116,922.62

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 402322010
!2015522515!

Make Check Payable To:
Kenneth Frizzell
McLean Co. Sheriff
135 E. Second St.
PO Box 292
houn, KY 42327

Property Tax Bill

Commonwealth of Kentucky
2015 McLean County Franchise Bill
Today's Date: Tuesday, January 12, 2016

KENTUCKY UTILITIES CO
GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232-2010

Bill Date: January 12, 2016
Bill Number: F-005225
Map Number:
PVA Account Number:
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Stacy Patrick

Assessment:

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	153,941.00	0.1450	223.21
REAL_ESTATE	SCHOOL	153,941.00	0.5410	832.82
REAL_ESTATE	EXTENSION	153,941.00	0.0330	50.80
REAL_ESTATE	HEALTH	153,941.00	0.0370	56.96
REAL_ESTATE	SOIL_CONSERVATION	153,941.00	0.0130	20.01
REAL_ESTATE	LIBRARY	153,941.00	0.0380	58.50
TANG_45	COUNTY	5,080,406.00	0.1900	9,652.77
TANG_45	SCHOOL	5,080,406.00	0.5410	27,485.00
TANG_45	EXTENSION	5,080,406.00	0.0342	1,737.50
TANG_45	HEALTH	5,080,406.00	0.0370	1,879.75
TANG_45	LIBRARY	5,080,406.00	0.0380	1,930.55
			Total Assessment:	**43,927.87**

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY.

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 43,927.87

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61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 128
GNC NO: 005225
DATE 01/11/2016
TYPE: 035

Return Tax Payment to Sheriff
E KELTY
MERCER COUNTY
P O BOX 126
HARRODSBURG, KY 40330
County Clerk CHRIS HORN
Telephone 859-734-6310

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CEXT	46,485,959.00	0.0420		19,524.10		0.0856			19,524.10
REAL ESTATE	CNTY	46,485,959.00	0.1050		48,810.26		0.1467			48,810.26
REAL ESTATE	HLTH	46,485,959.00	0.0400		18,594.38		0.0400			18,594.38
REAL ESTATE	LIB	46,485,959.00	0.0840		39,048.21		0.0840			39,048.21
REAL ESTATE	SOIL	46,485,959.00	0.0070		3,254.02					3,254.02
REAL ESTATE FIRE	FIRE	44,976,955.00	0.0600		26,986.17		0.0600			26,986.17
SCHOOL REAL	SCHL	46,449,367.00	0.6490		301,456.39		0.6490			301,456.39
TANGIBLE	CEXT		0.0420			35,026,148.00	0.0856		29,982.38	29,982.38
TANGIBLE	CNTY		0.1050			35,026,148.00	0.1467		51,383.36	51,383.36
TANGIBLE	HLTH		0.0400			35,026,148.00	0.0400		14,010.46	14,010.46
TANGIBLE	LIB		0.0840			35,026,148.00	0.0840		29,421.96	29,421.96
TANGIBLE FIRE	FIRE		0.0600			30,453,970.00	0.0600		18,272.38	18,272.38
TANGIBLE SCHOOL	SCHL		0.6490			26,081,388.00	0.6490		169,268.21	169,268.21

Signed Chris Horn
County Clerk

Total Due: 770,012.28 ✓

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TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 171
GNC NO: 5215
DATE 01/11/2016
TYPE: EU

,rn Tax Payment to Sheriff
JEFF SIDLES
NICHOLAS COUNTY

CARLISLE, KY 40311
County Clerk MARTHA MOSS
Telephone 859-289-3730

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	126,459.00	0.1360		171.98		0.1520			171.98
REAL ESTATE	EXT	126,459.00	0.0300		37.94		0.0600			37.94
REAL ESTATE	HLH	126,459.00	0.0500		63.23		0.0500			63.23
REAL ESTATE	LIB	126,459.00	0.0710		89.79		0.1260			89.79
REAL ESTATE	SCHL	126,459.00	0.3830		484.34		0.3830			484.34
REAL ESTATE	SOIL	126,459.00	0.0150		18.97					18.97
FIRE- REAL	FIRE	94,216.00	0.0540		50.88		0.0540			50.88
TANGIBLE	CNTY		0.1360			3,649,608.00	0.1520		5,547.40	5,547.40
TANGIBLE	EXT		0.0300			3,649,608.00	0.0600		2,189.76	2,189.76
TANGIBLE	HLH		0.0500			3,649,608.00	0.0500		1,824.80	1,824.80
TANGIBLE	LIB		0.0710			3,649,608.00	0.1260		4,598.51	4,598.51
TANGIBLE	SCHL		0.3830			3,649,608.00	0.3830		13,978.00	13,978.00
FIRE-TANG	FIRE		0.0540			3,439,248.00	0.0540		1,857.19	1,857.19

Signed Martha Moss, Clerk
County Clerk

Total Due: 30,912.79 √

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JAN 15 2016
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 2845
GNC NO: 005225
DATE 01/11/2016
TYPE: EU

Return Tax Payment to Sheriff
:VEN W SPARROW
OLDHAM COUNTY SHERIFF
100 W JEFFERSON ST; 2
LAGRANGE KY 40031
County Clerk JULIE K BARR
Telephone 502-222-9311

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN: GREG MEIMAN CORPORATE TAX DEPT
Address: P O BOX 32010

LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	AMB	132,123.00	0.0474		62.63		0.0474			62.63
REAL ESTATE	BLDG	132,123.00	0.2240		295.96		0.2240			295.96
REAL ESTATE	CNTY	132,123.00	0.0900		118.91		0.1180			118.91
REAL ESTATE	HLTH	132,123.00	0.0200		26.42		0.0200			26.42
REAL ESTATE	LIB	132,123.00	0.0370		48.89		0.0947			48.89
REAL ESTATE	SCHL	132,123.00	0.5410		714.79		0.5410			714.79
TANGIBLE	AMB		0.0474			10,890,969.00	0.0474		5,162.32	5,162.32
TANGIBLE	BLDG		0.2240			10,890,969.00	0.2240		24,395.77	24,395.77
TANGIBLE	CNTY		0.0900			10,890,969.00	0.1180		12,851.34	12,851.34
TANGIBLE	HLTH		0.0200			10,890,969.00	0.0200		2,178.19	2,178.19
TANGIBLE	LIB		0.0370			10,890,969.00	0.0947		10,313.75	10,313.75
TANGIBLE	SCHL		0.5410			10,890,969.00	0.5410		58,920.14	58,920.14
FIRE - LA GRANGE	FLA	121,597.00	0.1000		121.60		0.1000			121.60
FIRE - BALLARDSV	FB	10,527.00	0.1000		10.53		0.1000			10.53
FIRE - LA GRANGE	FLA		0.1000			6,218,208.00	0.1000		6,218.21	6,218.21
FIRE - SO OLDHAM	FS		0.0900			2,557.00	0.0900		2.30	2.30
FIRE - BALLARDSV	FB		0.1000			4,670,204.00	0.1000		4,670.20	4,670.20

Signed Julia K. Barr
County Clerk

Total Due: 126,111.95 ✓

RECEIVED
JAN 15 2016
TAX DEPT.

2015 OWEN COUNTY FRANCHISE Property Tax Stat

!2015000007!

1- 12-16

Mark Bess
OWEN COUNTY FRANCHISE
102 N MADISON ST
OWENTON KY 40359

Bill Number: 7
District: 00-COUNTY
Location:
Description:
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

Face Amount If Paid By 2-12-16	86,155.97
21% Penalty Paid After 2-12-16	104,248.73

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORP. TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232

Amount Enclosed: ____________

Check or Money Order Number: ____________

Detach and return with check payable to Sheriff Mark Bess: When paying by mail, include a self-addressed stamped envelope for receipt.

2015 OWEN COUNTY FRANCHISE Property Tax Statement

IF THIS TAX BILL SHOULD BE PAID BY MORTGAGE COMPANY OR NEW OWNER, PLEASE FORWARD TO RESPONSIBLE PARTY PROMPTLY.

Mark Bess
OWEN COUNTY FRANCHISE
102 N MADISON ST
OWENTON KY 40359

Bill Number: 7
District: 00-COUNTY
Location:
Description:
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

Description	Rate Per $100	Assessed Value	Tax
COUNTY Co Fran Real 15	0.1240	496,467	615.62
COUNTY Co Fran Tang 15	0.1340	8,029,045	10,758.92
SCHOOL Sch Fran Real 15	0.6310	496,467	3,132.71
SCHOOL Sch Fran Tang 15	0.6310	8,029,045	50,663.27
Health Fran Real 15	0.0560	496,467	278.02
Health Fran Tang 15	0.0560	8,029,045	4,496.27
Ext Fran Real 15	0.0490	496,467	243.27
Ext Fran Tang 15	0.0779	8,029,045	6,254.63
Lib Fran Real 15	0.1130	496,467	561.01
Lib Fran Tang 15	0.1130	8,029,045	9,072.82
Soil Cons Fran 15	0.0160	496,467	79.43

RECEIVED
JAN 15 2016
TAX DEPT.

Total Tax	86,155.97
Amount Due if:	
Face Amount If Paid By Dec 31 2014	86,155.97
21% Penalty Paid After Jan 31 2015	104,248.73

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORP. TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232
!2015000007!

61A255(1-90) Commonwealth of Kentucky For County,School or Special Taxes

CERTIFICATION OF PROPERTY ASSESSMENT
TAX YEAR 2013

Return Payment To: GNC: 5225

Sheriff **Charles W. "Craig Peoples**
County **Pendleton**
Address **202 Chapel St.**
Falmouth, KY 41040

Assessment for 2013 Date 1/12/2016

PAYMENT INSTRUCTIONS
The Department of Revenue certifies this assessment to the County Clerk in accordance with KRS136.180.

Name: KENTUCKY UTILITIES CO

Address: PO BOX 32010

City: LOUISVILLE

State: KY

Zip: 40232-2010

ATTN: GREG MEIMAN CORPORATE TAX DEPT

Property Class-Rate Per $ 100				Value	County	School	Special
County- Real Estate	0.4210	School	0.6120	$280,905	$1,182.61	$1,719.14	$2,901.75
County -Tangible	0.5709	School	0.6120	$2,646,629	$15,109.60	$16,197.37	$31,306.97
NORTHERN PEND FIRE							
	Real Estate Rate		0.15	$28,879	$43.32		$43.32
	Tangible Rate		0.1500	$199,472	$299.21		$299.21
Totals By Taxing District					$16,634.74	$17,916.51	$34,551.25

Rita M. Spencer, Clerk

Total Tax ***$34,551.25***

Diana Caldwell DC

Payment Received By:

Penalty
(10 percent of total tax
if not paid within 30 days)
Interest
(10 percent per annum
if not paid within 30 days)

Sheriff/Deputy

Date

RECEIVED
JAN 15 2016
TAX DEPT.

Total Tax, Penalty, and Interest ***$34,551.25***

51A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 1204
GNC NO: 5225
DATE 01/11/2016
TYPE: EU

Return Tax Payment to Sheriff
T Y HAMPTON, SHERIFF
S T COUNTY
120 N HAMILTON STREET
GEORGETOWN, KY 40324
County Clerk REBECCA M JOHNSON
Telephone 502-863-7875

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	2,540,655.00	0.0670		1,702.24		0.0670			1,702.24
REAL ESTATE	EXT	2,540,655.00	0.0181		459.86		0.0322			459.86
REAL ESTATE	HLTH	2,540,655.00	0.0440		1,117.89		0.0440			1,117.89
REAL ESTATE	LIB	2,540,655.00	0.0590		1,498.99		0.0600			1,498.99
REAL ESTATE	SCHL	2,540,655.00	0.4900		12,449.21		0.4900			12,449.21
TANGIBLE	CNTY		0.0670			31,276,558.00	0.0670		20,955.29	20,955.29
TANGIBLE	EXT		0.0181			31,276,558.00	0.0322		10,071.05	10,071.05
TANGIBLE	HLTH		0.0440			31,276,558.00	0.0440		13,761.69	13,761.69
TANGIBLE	LIB		0.0590			31,276,558.00	0.0600		18,765.93	18,765.93
TANGIBLE	SCHL		0.4900			31,276,558.00	0.4900		153,255.13	153,255.13

Signed Rebecca M. Johnson by TW
County Clerk

Total Due: 234,037.28 ✓

RECEIVED
JAN 15 2016
TAX DEPT.

61A255 (12-11)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes
Assessment for 2015 Taxes

Bill No. 9905
GNC No. 5225 Type Co EU
Date 12/16/15

Make Payment To :	SPENCER COUNTY SHERIFF
Return Tax Payment To :	
PO BOX 475	
TAYLORSVILLE, KY 40071	
Telephone Number	502-477-3200

Name	KENTUCKY UTITLITES COMPANY
Name	C/O GREG MEIMAN CORPORTATE TAX DEPT
Address	PO BOX 32010
Address	
City, State, ZIP Code	LOUISVILLE, KY 40232

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi- plier See Re- verse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi- plier See Re- verse	Tax Due Tangible	Total Real and Tangible Tax Due
COUNTY	91,878	8.800		80.85	3,751,587	8.800		3,301.40	3,382.25
SCHOOL * 91,878	97,878	63.000		578,83 ~~616.63~~	3,751,587	63.000		23,635.00	~~24,251.63~~ 24213,83
LIBRARY	91,878	4.600		42.26	3,751,587	11.540		4,329.33	4,371.59
EXTENSION	91,878	3.430		31.51	3,751,587	17.820		6,685.33	6,716.84
HEALTH	91,878	4.000		36.75	3,751,587	4.000		1,500.63	1,537.38
SOIL	91,878	0.87		7.99					7.99
MT EDEN FIRE		7.000				7.000			
SPENCER CO FIRE	41,402	5.000		20.70	3,190,357	10.000		3,190.36	3,211.06
PLUM CREEK WATERSHED		1.200.							

* Corrected Real Estate assessment value

RECEIVED
JAN 15 2016
SPENCER COUNTY SHERIFF

RECEIVED
JAN 15 2016
TAX DEPT.

Important : See Reverse

Total District Tax $ ~~43,478.74~~
$ 43,440.94

61A255 (7-08)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No.

GNC No

Type Co

Date 1-11-16

Make Payment To : Mickey Arnold
Return Tax Payment To
Union County Sheriff
P. O. Box 30
Morganfield, Kentucky 42437

Telephone Number 270-389-1303

Name KENTUCKY UTILITIES CO
Name C/O GREG MEIMAN CORPORATE TAX DEPT
Address PO BOX 32010
Address
City, State, ZIP Code LOUISVILLE,KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier See Re-verse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier See Re-verse	Tax Due Tangible	Total Real and Tangible Tax Due
County	3,278,824.00	9.1		2,983.73	13,951,777.00	9.100		12,696.12	15,679.85
School	3,278,824.00	56.1		18,394.20	13,951,777.00	56.100		78,269.47	96,663.67
Library	3,278,824.00	7.70		2,524.69	13,951,777.00	9.100		12,696.12	15,220.81
Health	3,278,824.00	2.50		819.71	13,951,777.00	2.500		3,487.94	4,307.65
Extension	3,278,824.00	4.10		1,344.32	13,951,777.00	5.050		7,045.65	8,389.97
				26,066.65				114,195.30	

RECEIVED
JAN 15 2016
TAX DEPT.

Important : See Reverse

Total District Tax $ 140,261.95

61A255 (1-12)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 20 15 Taxes

Bill No.
GNC No. 5225 Type Co. 035
Date Jan 12 20 16

Make Payment To: Washington Co Sheriff
Return Tax Payment To: Jerry Pinkston, Sheriff
PO Box 127
Springfield KY 40069
Telephone Number 859 336 5400

Name Kentucky Utilities Co
Name c/o Greg Meiman Corporate Tax Dept.
Address
Address PO Box 32010
City, State, ZIP Code Louisville KY 40232

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
County	305280	.000770		235.07	5767039	.000770		4440.62	4675.69
School	305280	.005890		1798.10	5767039	.005890		33967.86	35765.96
Library	305280	.000850		259.49	5767039	.001002		5778.57	6038.06
Health Dept	305280	.0002288		69.85	5767039	.0002912		1679.36	1749.21
Ext. Svc.	305280	.000873		266.51	5767039	.001374		7923.91	8190.42
Airport	305280	.000110		33.58	5767039	.000110		634.37	667.96

RECEIVED
JAN 15 2016
TAX DEPT.

Important: See Reverse

Total District Tax $ 57,087.29

61A255(10-02)

Commonwealth of Kentucky

For County,School or Special Taxes

PROPERTY TAX STATEMENT
PUBLIC SERVICE COMPANY

Return Payment To:

Sheriff **Webster County Sheriff**
County **Webster**
Address **P O Box 20**
Dixon, KY 42409-0020

GNC # 5225
Type Co: RECC

Assessment for **2015** Taxes

Date 1/11/2016

Name: Kentucky Utilities Co
Attn: Greg Meiman Corporate Tax Dept
Address: P O Box 32010

City: Louisville
State: KY
Zip Code 40232-2010

Attn: Property Tax Manager

PAYMENT INSTRUCTIONS

This statement for public service company property taxes is due and payable 30 days after notice **(KRS 136.050(2))**. No discount is allowable for early payment. If not paid within 30 days, a 10 percent penalty plus a 10 percent sheirff's add-on fee **(KRS 134.430(3))** of total tax and interest at the tax interest rate per **KRS 131.183** per annum applies. Make payment to sheriff of county named on statement.

Property Class-Rate Per $ 100				Value	County	School	Special
Real Estate Rate	0.1710			$197,347	$337.46	****************	********
Web Co School	0.4860	**************		$197,347	****************	$959	********
Health	0.0275	**************		$197,347	****************	****************	$54.27
Library	0.064	**************		$197,347	****************	****************	$126.30
Extension	0.059	**************		$197,347	****************	****************	$116.43
Ambulance	0.065	**************		$184,681	****************	****************	$120.04
Tangible Rate	0.171	**************		$5,906,333	$10,099.83	****************	********
Web Co School	0.486	**************		$5,906,333	********	$28,704.78	********
Health	0.0275	**************		$5,906,333	********	****************	$1,624.24
Library	0.0713	**************		$5,906,333	********	****************	$4,211.22
Extension	0.059	**************		$5,906,333	********	****************	$3,484.74
Ambulance	0.065	**************		$5,182,495	********	****************	$3,368.62
Totals By Taxing District					$10,437.29	$29,663.88	$13,105.87

Valerie Newell
County Clerk

Total Tax ***$53,207.04***

Payment Received By:

Sheriff/Deputy

Date

Penalty
(10 percent of total tax if not paid within 30 days)

Interest
(tax interest rate per KRS 131.183 per annum if not paid within 30 days)

Total Tax, Penalty, and Interest

RECEIVED
JAN 15 2016
TAX DEPT.

61A255 (12-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT

DATE JANUARY 18,2016

STATEMENT OF FRANCHISE TAXES DUE

ASSESSMENT FOR 2015

RETURN PAYMENT TO CITY OF CARROLLTON:

P. O. BOX 156

CARROLLTON, KY 41008

CLERK-TREASURER: LEATHA GRIMES
CONTACT NUMBER: 502.732.7060

KENTUCKY UTILITIES CO.
C/O: GREG MEIMAN CORPORATE TAX DEPT.
P.O.BOX 32010
LOUISVILLE,KY 40232-2010

(Correction in their favor)

PROPERTY CLASS	ASSESSED VALUE	REAL ESTATE/TANGIBLE RATE PER $100 VALUE	TAX DUE
REAL ESTATE	136,019.00	0.30%	Calculation error $399.89 408.06
TANGIBLE	3,443,566.00	0.30%	$10,124.08 10,330.70
		TOTAL DUE TO CITY	$10,523.97 10,738.76

PAYMENT INFORMATION
This statement for public service company property taxes is due and payable 30 after notice (KRS 136.050(2). No discount is allowed for early payment. If not paid within 30 days , a 10% penalty of total tax and interest at the tax interest rate per KRS 131.183 per annum applies. Make payment to City of Carrollton.

RECEIVED
JAN 21 2016
TAX DEPT.

LEATHA GRIMES CLERK-TREASURER

2015 PROPERTY TAX BILL **CITY OF ELIZABETHTOWN, KENTUCKY** Bill No. 15004

PROPERTY CLASS .116 RATE PER $100 VALUE	ASSESSMENT	TAX
REAL PROPERTY		
PERSONAL PROPERTY		
Public Service		
real estate	1,639,775.00	1,902.14
Tangible personal	12,380,675.00	14,361.58
TOTALS		16,263.72

RETURN NOTICE WITH PAYMENT WHETHER PAYING IN PERSON OR BY MAIL. WHEN PAYING BY MAIL, INCLUDE SELF-ADDRESSED STAMPED ENVELOPE FOR RECEIPT.

MAKE CHECK PAYABLE TO CITY OF ELIZABETHTOWN
P.O. BOX 550
ELIZABETHTOWN, KY. 42702-0550

CERTIFIED AS CORRECT: Cheryl Buhr — CITY TREASURER
Mary Chaudoin — CITY TAX COLLECTOR

TOTAL TAX 2%discount $325.27 by 2-15-2016
Please pay in full by 3-15-2016

16,263.72

	AMOUNT DUE
DISCOUNT IF PAID BY	
NET DUE IF PAID BY	
PEN & INT 1 IF PAID BY	
PEN & INT 2 IF PAID BY	
PEN & INT 3 IF PAID BY	
ADVERTISING & COSTS	
TOTAL AMOUNT PAID	
DATE PAID	

Kentucky Utilities Co.
C/o Greg Meiman Corporate Tax Dept.
PO Box 32010
Louisville, KY 40232-2010

RECEIVED
JAN 18 2016
TAX DEPT.

2015 TAX BILLS PROPERTY TAX STATEMENT DATE: 01/19/2016
City of Richmond, KY TIME: 10:03:01

Bill #: 2015-01-0090027 Bank : RS: 1
#: Id: 0000-2015-0027
Assmt: 1,097,446 Sch: RS Loc:
Txble 1,097,446 Cls: R Acr: Fr: Dep:

Ln Due/Pd	Principal	Fees	Penalty	Total	Balance
CITY GEN R	1,525.45				
PARK & REC	197.54				
INTEREST			21.54		
PENALTY			172.30		
TOTAL	1,722.99		193.84	1,916.83	1,916.83

10% PENALTY ADDED AFTER 12/31/14
1.25% INTEREST ADDED PER MONTH AFTER 12/31/14

KENTUCKY UTILITIES CO
CO GREG MULLINS
TAX DEPARTMENT
PO BOX 32010 40232-2010

*** PROPERTY TAX STATEMENT ***

Please pay the highlighted amount by Feb. 20, 2016

Thank you
Tammy Smith
Department of Finance

pg 1 of 2

2015 TAX BILLS — PROPERTY TAX STATEMENT — City of Richmond, KY — DATE: 01/19/2016 TIME: 10:03:46

Bill #: 2015-01-0090028 Bank : RS: 2
#: Id: 0000-2015-0028
Assmt: 16,361,528 Sch: RS Loc:
Txble 16,361,528 Cls: T Acr: Fr: Dep:

Ln	Due/Pd	Principal	Fees	Penalty	Total	Balance
CITY GEN P		22,742.52				
PARK & REC		2,945.08				
INTEREST				321.10		
PENALTY				2,568.76		
TOTAL		25,687.60		2,889.86	28,577.46	28,577.46

10% PENALTY ADDED AFTER 12/31/14
1.25% INTEREST ADDED PER MONTH AFTER 12/31/14

KENTUCKY UTILTIES CO
C/O GREG MEIMAN
CORPORATE TAX DEPT

LOUISVILLE, KY 40232-2010

*** PROPERTY TAX STATEMENT ***

Please Pay the highlighted amount by Feb 19th 2016

Thank You
Tammy Smith
Department of Finance

Pg. 2 of 2

Total : 27,410.59 ✓

RECEIVED
JAN 21 2016
TAX DEPT.

CITY OF SHELBYVILLE

PROPERTY TAX BILL YEAR Franchise

TAX BILL NO. 3 3

1. PROPERTY CLASS	TAX RATE	ASSESSMENT	TAX DUE
2. REAL PROPERTY	.2750	567,253.00	1,559.95
3. PERSONAL PROPERTY	.3350	5,727,193.00	19,186.10
4.			
5. **TOTAL TAX DUE ⟶**			20,746.05
6. PENALTY			
7. INTEREST			
8. **TOTAL TAX DUE ⟶**			

RECEIVED BY: DATE PAID:

ADDRESS OF TAXABLE PROPERTY

if paid within 30 days discount of 0

NOTICE

A. TAXES: DUE ON OR BEFORE ~~NOVEMBER~~ February 15, 2015

B. PENALTY: 10% AFTER DUE DATE.

C. INTEREST: 6% PER ANNUM AFTER DUE DATE.

D. RETURN NOTICE WITH CHECK TO:

CITY CLERK
315 WASHINGTON STREET
SHELBYVILLE, KY. 40065

(FOR RECEIPT ENCLOSE STAMPED ENVELOPE)

PROPERTY OWNER'S NAME & MAILING ADDRESS

Kentucky Utilities Co.
c/o Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville KY 40232-2010

RECEIVED
JAN 13 2016
TAX DEPT.

ASSESSMENTS MADE AS OF JANUARY 1, 2015

Attachment to Response to KIUC-1 Question No. 23
Page 133 of 220
Garrett

Make Check Payable To:
Adair
Sheriff
424 Public Square Suite 20
urthouse Annex
umbia, KY 42728

Property Tax Bill

Commonwealth of Kentucky
2015 Adair County Franchise Bill
Today's Date: Wednesday, January 13, 2016

KENTUCKY UTILITIES CO
GREG MEINMAN CORP TAX DEPT3
P.O. BOX 32010
LOUISVILLE,KY 40232

Bill Date: January 13, 2016
Bill Number: 12951
Map Number:
PVA Account Number:
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Clerk

Assessment:

Real Estate

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	92,101.00	0.1420	130.78
REAL_ESTATE	SCHOOL	92,101.00	0.5170	476.16
REAL_ESTATE	EXTENSION	92,101.00	0.0470	43.29
REAL_ESTATE	HEALTH	92,101.00	0.0300	27.63
REAL_ESTATE	SOIL CONS	92,101.00	0.0170	15.66
REAL_ESTATE	LIBRARY	92,101.00	0.0530	48.81
REAL_ESTATE	AMBULANCE	92,101.00	0.0745	68.62
REAL_ESTATE	HOSPITAL	92,101.00	0.1000	92.10
			Total Assessment:	**903.05**

ustments:

Adjustment Type	Assessment Type	Assessed Value	Amount

Total Adjustments:

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY.

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount

Total Payments:

Balance Due: 903.05

Pg. 1 of 2

RECEIVED
JAN 18 2016
TAX DEPT.

Make Check Payable To:
Adair
Sheriff
424 Public Square Suite 20
Courthouse Annex
Columbia, KY 42728

Property Tax Bill

Commonwealth of Kentucky
2015 Adair County Franchise Bill
Today's Date: Wednesday, January 13, 2016

KENTUCKY UTILITIES CO
GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232

Bill Date: January 13, 2016
Bill Number: 12952
Map Number:
PVA Account Number:
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Clerk

Assessment:

Tangible

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	SCHOOL	3,524,331.00	0.5170	18,220.79
REAL_ESTATE	HEALTH	3,524,331.00	0.0300	1,057.30
REAL_ESTATE	AMBULANCE	3,524,331.00	0.0745	2,625.63
REAL_ESTATE	HOSPITAL	3,524,331.00	0.1000	3,524.33
TANG .45	COUNTY	3,524,331.00	0.1901	6,699.75
TANG .45	EXTENSION	3,524,331.00	0.0769	2,710.21
TANG .45	LIBRARY	3,524,331.00	0.0534	1,881.99
			Total Assessment:	**36,720.00**

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 36,720.00

Page 2 of 2

Total: 37,623.05

RECEIVED
JAN 18 2016
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
Department of Revenue

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes
Assessment for 2015 Taxes

Bill No.
GNC: 5225
Date:01/13/2016

Return Tax to:
Carey Batts
Ballard County Sheriff
PO Box 565
Wickliffe KY 42087
County Clerk Lynn W. Lane
Telephone Number 270-335-5168

Name:	Kentucky Utilities Co
Name:	C/O Greg Meiman Corporate Tax Dept
Address:	
Address:	P O Box 32010
City,State,Zip	Louisville KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier*	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier*	Tax Due Tangible	Total Real and Tangible Tax Due
County	$ 277,539.00	20.2		$ 560.63	6227694.00	21		$ 13,078.16	$ 13,638.79
School District	$ 277,539.00	52		$ 1,443.20	6227694.00	52		$ 32,384.01	$ 33,827.21
Health District	$ 277,539.00	3		$ 83.26	6227694.00	3		$ 1,868.31	$ 1,951.57
Extension District	$ 277,539.00	3		$ 83.26	6227694.00	2.61		$ 1,625.43	$ 1,708.69
Conservation District	$ 277,539.00	1.6		$ 44.41					$ 44.41
								Total Due	$ 51,170.66

RECEIVED
'16
TAX DEPT.

RECEIVED
JAN 21 2016
TAX DEPT.

* see reverse

Attachment to Response to KIUC-1 Question No. 23
Page 136 of 220
Garrett

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO. 142
GNC NO. 005225
DATE 01/11/2016
TYPE: EU

Return Tax Payment to Sheriff
MITCH WILLIAMS
BELL COUNTY
PO BOX 448
PINEVILLE KY 40977
County Clerk DEBBIE GAMBREL
Telephone 606-337-6143

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: ~~C/O RON MILLER~~
PO BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	3,730,807.00	0.1130		4,215.81		0.1490			4,215.81
REAL ESTATE	HLTH	3,730,807.00	0.0550		2,051.94		0.0550			2,051.94
REAL ESTATE	LIB	3,730,807.00	0.0860		3,208.49		0.1019			3,208.49
REAL ESTATE	SWAS	3,730,807.00	0.0350		1,305.78					1,305.78
COUNTY SCHOOL	SCHL	1,905,775.00	0.5670		10,805.74		0.5670			10,805.74
SCHOOL PINEVILL	SCH2	1,424,088.00	0.6370		9,071.44		0.6370			9,071.44
SCHOOL MIDDLES	SCH1	400,944.00	0.5130		2,056.84		0.5130			2,056.84
TANGIBLE	CNTY		0.1130			36,552,066.00	0.1490		54,462.58	54,462.58
TANGIBLE	HLTH		0.0550			36,552,066.00	0.0550		20,103.64	20,103.64
TANGIBLE	LIB		0.0860			36,552,066.00	0.1019		37,246.56	37,246.56
COUNTY SCHOOL	SCHL		0.5670			27,764,192.00	0.5670		157,422.97	157,422.97
SCHOOL PINEVILL	SCH2		0.6370			3,677,027.00	0.6370		23,422.66	23,422.66
SCHOOL MIDDLEB	SCH1		0.5130			5,110,847.00	0.5130		26,218.65	26,218.65

Signed Debbie Gambrel
County Clerk

Total Due: 351,593.10 ✓

RECEIVED
JAN 15 2016
TAX DEPT.

2015 Carroll County Franchise Property Tax Statement

!2015000008!

Bill Number: 8
District: 01-Regular
Location: 2015 FRANCHISE
Description:
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

Jamie Kinman
Carroll County Franchise Sherif
440 Main St.
Carrollton, KY 41008
Phone (502)732-7010

2% Discount If Paid By Nov 01 2015	771,297.82
Face Amount If Paid By Dec 31 2015	787,038.59
5% Penalty If Paid By Jan 31 2016	826,390.52
21% Penalty Paid After Jan 31 2016	952,316.70

KENTUCKY UTILITIES CO
C/O GREG MEIMAN-CORP TAX DEPT
P.O. BOX 32010
LOUISVILLE KY 402322010

Amount Enclosed: ______________

Check or Money Order Number: ______________

Detach and return with check payable to Sheriff Jamie Kinman: When paying by mail, include a self-addressed stamped envelope for receipt.

2015 Carroll County Franchise Property Tax Statement

IF THIS TAX BILL SHOULD BE PAID BY MORTGAGE COMPANY OR NEW OWNER, PLEASE FORWARD TO RESPONSIBLE PARTY PROMPTLY.

Bill Number: 8
District: 01-Regular
Location: 2015 FRANCHISE
Description:
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

Jamie Kinman
Carroll County Franchise Sherif
440 Main St.
Carrollton, KY 41008
Phone (502)732-7010

Description	Rate Per $100	Assessed Value	Tax
COUNTY Franchise Real 15	0.0320	52,779,996	16,889.60
COUNTY Franchise Tang 15	0.1530	36,138,758	55,292.30
SCHOOL Francise Real 15	0.5650	52,779,996	298,206.98
SCHOOL Franchise Tang 15	0.5660	36,138,758	204,545.37
Franchise Real 15	0.1000	52,779,996	52,780.00
Franchise Tang 15	0.1000	36,138,758	36,138.76
Franchise Real 15	0.0540	52,779,996	28,501.20
Franchise Tang 15	0.0540	36,138,758	19,514.93
Franchise Real 15	0.1000	51,957,241	51,957.24
Franchise Tang 15	0.1000	23,212,209	23,212.21

RECEIVED
JAN 18 2016
TAX DEPT.

Total Tax	787,038.59
Amount Due if:	
2% Discount If Paid By Nov 01 2015	771,297.82
Face Amount If Paid By Dec 31 2015	787,038.59
5% Penalty If Paid By Jan 31 2016	826,390.52
21% Penalty Paid After Jan 31 2016	952,316.70

KENTUCKY UTILITIES CO
C/O GREG MEIMAN-CORP TAX DEPT
P.O. BOX 32010
.OUISVILLE KY 402322010
!2015000008!

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO 29
GNC NO.: [illegible]
DATE 01/13/2016
TYPE: EU

rn Tax Payment to Sheriff
Hart County Sheriff
Boston Hensley
P.O. Box 206
Munfordville, KY. 42765

County Clerk
Telephone

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total R and Tangible Tax Due
REAL ESTATE	AMB	208,543.00	0.0740		154.32		0.0900			154.32
REAL ESTATE	CNTY	208,543.00	0.1060		221.06		0.1219			221.06
REAL ESTATE	LIB	208,543.00	0.0680		141.81		0.1336			141.81
REAL HART SCHO(	SCH	176,673.00	0.5750		1,015.87		0.5750			1,015.87
REAL CAVERNA S(	SCH1	31,870.00	0.7300		232.65		0.7300			232.65
TANGIBLE	AMB		0.0740			7,672,159.00	0.0900		6,904.94	6,904.94
TANGIBLE	CNTY		0.1060			7,672,159.00	0.1219		9,352.36	9,352.36
TANGIBLE	LIB		0.0680			7,672,159.00	0.1336		10,250.00	10,250.00
TANGIBLE HART S(	SCH		0.5750			5,572,989.00	0.5750		32,044.69	32,044.69
TANGIBLE CAVERI	SCH1		0.7300			2,099,170.00	0.7300		15,323.94	15,323.94

Signed Lisa Hensley Sanders
County Clerk

Total Due: 75,641.64 ✓

RECEIVED
JAN 18 2016
TAX DEPT.

61A255 (7-08)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

mailed 1/14/16

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No. 01-13-2016-2

GNC No. 005225 Type Co EU

Date JAN.13, 2016

Make Payment To : Mark Green, Sheriff
Return Tax Payment To :
Hickman County Sheriff
110 E Clay St., Suite B
Clinton, KY 42031

Telephone Number Jim Berry, Clerk 270-653-2131

Name

Name KENTUCKY UTILITIES CO
Address C/O GREG MEIMAN CORPORATE TAX DEPT
Address PO BOX 32010
City, State, ZIP Code LOUISVILLE, KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
County	49,333	14.300		70.55	2,058,957	11.400		2,347.21	2,417.76
School	49,333	53.400		263.44	2,058,957	55.400		11,406.62	11,670.06
Health	49,333	3.200		15.79	2,058,957	3.200		658.87	674.66
DCEE	49,333	5.200		25.65	2,058,957	6.330		1,303.32	1,328.97
Conservation RE	49,333	1.300		6.41					6.41
Obion Creek Watershed		5.060							
Clinton Fire	31,380	10.000		31.38	957,117	10.000		957.12	988.50
Columbus Fire	429	10.000		0.43	118,419	10.000		118.42	118.85

RECEIVED JAN 2016 TAX DEPT.

Important : See Reverse

Total District Tax $ 17,205.21

31A25+A (1-12)

Commonwealth of Kentucky

DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
LEE COUNTY, KY
For County, School or Special Taxes

Bill NO. 15-012
GNC No. 005225 GU
Tax Type 035
Date 1/12 2016

Original Assess. Tang 10523744
Amended Assess Tan. 10691269
Didderencde INC 167,525

ASSESSMENT 2015

Return Tax Payment to Sheriff:
Wendell Childers
PO Box P
Beattyville KY 41311

County Clerk KIMBERLY A. NOE
Telephone Number (606)464-4115

Name Kentucky Utilities Co
Name
C/O Greg Meiman Corporate Tax Dept
Address PO Box 32010
Address
City, State, Zip Code Louisville KY 40232-2010

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi- See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi- See * Reverse	Tax Due Tangible	Total Real and Tangible Tax due
County	192,638	45.40		874.58	1,643,078	45.40		7459.57	8334.15
School	192,638	33.70		649.19	1,643,078	33.70		5537.17	6186.36
Library	192,638	14.40		277.40	1,643,078	18.67		3067.63	3345.03
Health	192,638	5.00		96.32	1,643,078	5.00		821.54	917.86
Ext Serv	192,638	7.60		146.40	1,643,078	15.67		2574.70	2721.11
[illegible] Dist	192,638	2.70		52.01					52.01
	192,638	108.80		2,095.90	1,643,078	118.44		19,460.62	21,556.52

Important: See Reverse

Total District Tax $ 21,556.52

RECEIVED
JAN 13 2016
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO. 112
GNC NO. [illegible]25
DATE 01/12/2016
TYPE: EU

Return Tax Payment to Sheriff
R[illegible]DY WATERS
[illegible]CREARY COUNTY
P O BOX 627
WHITLEY CITY, KY 42653
County Clerk ERIC HAYNES
Telephone 606-376-2322

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: P O BOX 32010

LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	26,439.00	0.0950		25.12		0.2040			25.12
REAL ESTATE	HLTH	26,439.00	0.0400		10.58		0.0400			10.58
REAL ESTATE	LIB	26,439.00	0.0770		20.36		0.0770			20.36
REAL ESTATE	SCHL	26,439.00	0.4190		110.78		0.4190			110.78
REAL ESTATE	SOIL	26,439.00	0.0170		4.49					4.49
REAL CENTRAL FC	FIR2	24,734.00	0.1000		24.73		0.1000			24.73
REAL SOUTH FD	FIR3	1,705.00	0.1000		1.70		0.1000			1.70
TANGIBLE	CNTY		0.0950			3,156,448.00	0.2040		6,439.15	6,439.15
TANGIBLE	HLTH		0.0400			3,156,448.00	0.0400		1,262.58	1,262.58
TANGIBLE	LIB		0.0770			3,156,448.00	0.0770		2,430.46	2,430.46
TANGIBLE	SCHL		0.4190			3,156,448.00	0.4190		13,225.52	13,225.52
TANGIBLE CENTR/	FIR2		0.1000			2,290,040.00	0.1000		2,290.04	2,290.04
TANGIBLE SOUTH	FIR3		0.1000			866,408.00	0.1000		866.41	866.41

Signed ____________________
County Clerk

Total Due: 26,711.92 ✓

RECEIVED
JAN 18 2016
TAX DEPT.

COMMONWEALTH OF KENTUCKY: MUHLENBERG COUNTY
RETURN PAYMENT TO:

CURTIS MCGEHEE
Sheriff of Muhlenberg County
P.O. Box 227
Greenville, Kentucky 42345

Bill No
Date 1/14/16

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes

ASSESSMENT YEAR: 2015

Kentucky Utilities Co
C/O Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville KY 40232-2010

This statement for public service company property taxes is due and payable **30 days after notice (KRS 136.050(2))**. No discount is allowable for early payment. If not paid within 30 days, a 10 percent penalty of total tax plus interest at the tax interest rate per **KRS 131.183** per annum applies. Make payment to Sheriff of County names in statement.

Property Class-Rate Per $100 Value	Rate	Assessed Value	County Tax	School Tax	Special Tax
Real Estate County	0.1020%	$0.00	$0.00		$0.00
Tangible County	0.0980%	$0.00	$0.00		
School (Real Estate)	0.4970%	$2,143,209.00		$10,651.75	
School (Tangible)	0.4970%	$32,354,441.00		$160,801.57	
SPECIAL					
Health (Real Estate)	0.0220%	$2,143,209.00			$471.51
Health (Tangible)	0.0220%	$32,354,441.00			$7,117.98
Franchise (Real Estate)	0.1020%	$2,143,209.00	$2,186.07		
Franchise (Tangible)	0.0980%	$32,354,441.00	$31,707.35		
Library (Real Estate)	0.0830%	$2,143,209.00			$1,778.86
Library (Tangible)	0.1362%	$32,354,441.00			$44,066.75
WATERSHEDS					
East Fork Pond Creek	0.0600%	$1,003.00			$0.60
Flood Plain (Per Acre)	1.5000%	$0.00			$0.00
Mud River	0.0135%	$270.00			$0.04
Pond Creek	0.0220%	$0.00			$0.00
Fire Protection (Per Acre)	0.0200%	$0.00			$0.00
Cooperative Ext (Real Estate)	0.0190%	$2,143,209.00			$407.21
Cooperative Ext (Tangible)	0.0209%	$32,354,441.00			$6,762.08
Conservation Dist (Real Estate)	0.0052%	$2,143,209.00			$111.45
Airport (Real Estate)	0.0090%	$2,143,209.00			$192.89
Airport (Tangible)	0.0090%	$32,354,441.00			$2,911.90
Agricultural Products (In Stg)	0.0940%	$0.00			$0.00
W Muhl. Pond River Flood Plain	1.5000%	$0.00			$0.00
TOTALS BY TAXING DISTRICT			**$33,893.43**	**$171,453.32**	**$63,821.26**

Signed *Gaylan Spurlin* County Clerk

TOTAL TAX: $269,168.00

Payment Received By ____________ Sheriff

Date: ____________

By: ____________ Deputy Clerk

RECEIVED
JAN 18 2016
TAX DEPT.

If there is a question regarding this bill, please contact Muhlenberg County Clerk's Office at (270) 338-1441

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 4
GNC NO: 8225
DATE 01/13/2016
TYPE: EU

Return Tax Payment to Sheriff
T. CY BEATTY
OHIO COUNTY
P O BOX 186
HARTFORD, KY 42347
County Clerk BESS TICHENOR RALPH
Telephone 270-298-4422

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
P O BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CEXT	347,035.00	0.0239		82.94		0.0258			82.94
REAL ESTATE	CNTY	347,035.00	0.0680		235.98		0.0680			235.98
REAL ESTATE	HLTH	347,035.00	0.0350		121.46		0.0350			121.46
REAL ESTATE	LIB	347,035.00	0.0700		242.92		0.0754			242.92
REAL ESTATE	SCHL	347,035.00	0.4840		1,679.65		0.4840			1,679.65
REAL ESTATE	SOIL	347,035.00	0.0070		24.29					24.29
TANGIBLE	CEXT		0.0239			9,330,602.00	0.0258		2,407.30	2,407.30
TANGIBLE	CNTY		0.0680			9,330,602.00	0.0680		6,344.81	6,344.81
TANGIBLE	HLTH		0.0350			9,330,602.00	0.0350		3,265.71	3,265.71
TANGIBLE	LIB		0.0700			9,330,602.00	0.0754		7,035.27	7,035.27
TANGIBLE	SCHL		0.4840			9,330,602.00	0.4840		45,160.11	45,160.11

Signed ______________________________
County Clerk

Total Due: 66,600.44

RECEIVED
JAN 21 2016
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 1560
GNC NO: 005225
DATE 01/12/2016
TYPE: EU

Return Tax Payment to Sheriff
K SUTTON
ROBERTSON COUNTY
BOX 385, 26 COURT ST
MT OVLIVET, KY 41064
County Clerk JOANIE JOLLY
Telephone 606-724-5212

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	47,406.00	0.1320		62.58		0.1643			62.58
REAL ESTATE	CONS	47,406.00	0.0390		18.49					18.49
REAL ESTATE	EXT	47,406.00	0.1460		69.21		0.2080			69.21
REAL ESTATE	HLTH	47,406.00	0.0800		37.92		0.0800			37.92
REAL ESTATE	LIB	47,406.00	0.1450		68.74		0.1955			68.74
REAL ESTATE	SCHL	47,406.00	0.6130		290.60		0.6130			290.60
TANGIBLE	CNTY		0.1320			1,042,068.00	0.1643		1,712.12	1,712.12
TANGIBLE	EXT		0.1460			1,042,068.00	0.2080		2,167.50	2,167.50
TANGIBLE	HLTH		0.0800			1,042,068.00	0.0800		833.65	833.65
TANGIBLE	LIB		0.1450			1,042,068.00	0.1955		2,037.24	2,037.24
TANGIBLE	SCHL		0.6130			1,042,068.00	0.6130		6,387.88	6,387.88

Signed ______________________________
County Clerk

Total Due: 13,685.93 ✓

RECEIVED
JAN 21 2016
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO. 90158
GNC NO. 8225
DATE 01/12/2016
TYPE: 035

R[illegible] Tax Payment to Sheriff
M[illegible] ARMSTRONG
SHELBY COUNTY SHERIFF
501 MAIN STREET
SHELBYVILLE, KY 40065
County Clerk SUE CAROLE PERRY
Telephone 502-633-4410

Taxpayer Name: KENTUCKY UTILITIES COMPANY
ATTN:
Address: % GREG MEIMAN CORPORATE TAX DEPT
P.O.BOX 32010
LOUISVILLE KY 40232

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CNTY	7,899,421.00	0.1100		8,689.36		0.1050			8,689.36
REAL ESTATE	CON	7,899,421.00	0.0100		789.94					789.94
REAL ESTATE	EXT	7,899,421.00	0.0207		1,635.18		0.0200			1,635.18
REAL ESTATE	HLTH	7,899,421.00	0.0375		2,962.28		0.0375			2,962.28
REAL ESTATE	LAND	7,899,421.00	0.0340		2,685.80					2,685.80
REAL ESTATE	LIB	7,899,421.00	0.0350		2,764.80		0.0350			2,764.80
REAL ESTATE	SCHL	7,899,421.00	0.7150		56,480.86		0.7150			56,480.86
FIRE SHELBY SUB	FD1	822,023.00	0.1000		822.02		0.1000			822.02
FIRE - SIMPSONVII	FD2	7,074,757.00	0.1000		7,074.76		0.1000			7,074.76
FIRE - US 60 EAST	FD6	1,113.00	0.0900		1.00					1.00
FIRE - WADDY	FD7	396.00	0.1000		0.40					0.40
FIRE - BAGDAD	FD8	1,132.00	0.0900		1.02					1.02
TANGIBLE	CNTY		0.1100			49,632,374.00	0.1050		52,113.99	52,113.99
TANGIBLE	EXT		0.0207			49,632,374.00	0.0200		9,926.47	9,926.47
TANGIBLE	HLTH		0.0375			49,632,374.00	0.0375		18,612.14	18,612.14
TANGIBLE	LIB		0.0350			49,632,374.00	0.0350		17,371.33	17,371.33
T[illegible]BLE	SCHL		0.7150			49,632,374.00	0.7150		354,871.47	354,871.47
[illegible] SHELBY SUI	FD1		0.1000			16,006,804.00	0.1000		16,006.80	16,006.80
FIRE - SIMPSONVII	FD2		0.1000			31,572,074.00	0.1000		31,572.07	31,572.07

Signed Sue Carole Perry
County Clerk

Total Due: 584,381.69 ✓

RECEIVED
JAN 18 2016
TAX DEPT.

RECEIVED
JAN 14 2016
SHELBY CO. SHERIFF'S OFFICE

61A255 (1-90)

Commonwealth of Kentucky

For County, School or Special Taxes

Return Payment to:

WILLIAMSBURG INDEPENDENT SCHOOL
1000 MAIN STREET
WILLIAMSBURG KY 40769

PROPERTY TAX STATEMENT
PUBLIC SERVICE COMPANY

Assessment for 2015 Taxes

Date January 15 2016

Address: Kentucky Utilities Co.
Name c/o Greg Meiman Corporate Tax Dept
Street P.O. Box 32010
City, State, ZIP Code Louisville, KY 40230-2010

PAYMENT INSTRUCTIONS

This statement for public service company property taxes is due and payable 30 days after notice (KRS 136.050(2)). No discount is allowable for early payment. If not paid within 30 days, a 10 percent penalty of total tax plus interest at 10 percent per annum applies. Make payment to ~~sheriff of county~~ the school named on statement.

PROPERTY CLASS—Rate Per $100 Value				Assessed Value	County Tax	School Tax	Special Tax
REAL ESTATE RATE	County	School	46.7	14 237.00		66.49	
TANGIBLE RATE	County	School	46.7	2,718,140.00		12693.71	
TOTALS BY TAXING DISTRICT							

Signed David Higginbotham
TAX COLLECTOR

Payment Received By

Date ______ By ______

TOTAL TAX	$ 12,760.20
PENALTY { 10 percent of total tax if not paid within 30 days	
INTEREST { 10 percent per annum if not paid within 30 days	
TOTAL TAX, PENALTY AND INTEREST	$

RECEIVED
JAN 18 2016
TAX DEPT.

BURGIN BOARD OF EDUCATION
P.O. BOX B
BURGIN, KENTUCKY 40310

RECEIVED
JAN 26 2016
TAX DEPT.

BILL 04412091
TAX YEAR 2015
UNDER ASSESSMENT OF MERCER COUNTY

DESCRIPTION OF PROPERTY	VALUATION
Real Estate	36,592.00
Tangible Property	8,944,760.00

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORP TAX DEPT
P.O. BOX 32010
LOUISVILLE, KY 40232-2010

----------TERMS OF PAYMENT----------

Pay by 2/19/16	$58,917.67

x per $100 valuation:
Real Estate: 0.656%
Tangibles: 0.656%

NOTICE: Return copy of with check payable to the Burgin Board of Educ... .on.

City of Eddyville • 153 West Main • P O Box 744
Eddyville KY 42038
Phone: 270-388-2226

PROPERTY TAX BILL

Acct. No.: 451231383 Bill No.: 1181 Year: 2015

POSTMARK NOT ACCEPTED-PLEASE PAY CORRECT AMOUNT

Map Number/Gen. Location	Dist.	Property Code	Assessment	Rate		Tax Amount
	01	Tangibles	1,950,864.00	Tang Prop	.4837	9,436.33

Total Tax Due By	02/29/16	9,436.33
5% Penalty if not paid by	03/01/16	9,908.15
10% Penalty if paid after	03/31/16	10,379.96

Kentucky Utilites Co
C/0 Greg Meiman Corporate Tax
PO Box 32010
Louisville, KY 40232-2010

Delinquent Tax Information

pg. 1 of 2

Amounts do not include penalty and interest

City of Eddyville • 153 West Main • P O Box 744
Eddyville KY 42038
Phone: 270-388-2226

PROPERTY TAX BILL

Acct. No.: 451231383 Bill No.: 1180 Year: 2015

POSTMARK NOT ACCEPTED-PLEASE PAY CORRECT AMOUNT

Map Number/Gen. Location	Dist.	Property Code	Assessment	Rate		Tax Amount
	01	Real Est	498,758.00	Real Est	.3760	1,875.33

Total Tax Due By	02/29/16	1,875.33
5% Penalty if not paid by	03/01/16	1,969.10
10% Penalty if paid after	03/31/16	2,062.86

Kentucky Utilites Co
C/0 Greg Meiman Corporate Tax
PO Box 32010
Louisville, KY 40232-2010

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Delinquent Tax Information

pg. 2 of 2

Total: $11,311.66

Amounts do not include penalty and interest

PROPERTY TAX BILL 2015 City of Greenville P O Box 289 Greenville, KY 42345

PROPERTY CLASS - Rate Per $100 Value	Assessed Value					DISTRICT	Bill No.
Public Service Assessment						02	2252
Real Estate @ 28.3	1,121,560			3,174.01			
Tangible @ 38.11	2,957,301			11,270.27		DATE PAID	
						AMOUNT PAID	
						TOTAL TAX	
TOTALS	4,078,861			14,444.28		14,444.28	

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TAX DEPT.

TAXPAYER'S NOTICE
Form 62A301-C REV. 5/05

Payable to City Clerk

KENTUCKY UTILITIES CO
c/o Greg Meiman Corporate Tax Dept
P O Box 32010
Louisville, KY 40232-2010

-288.89	2% disc if paid by 02/20/2016	14,155.39
	If paid by 03/20/2016	14,444.28
+722.21	5% pen if paid aft 03/20/2016	15,166.49

RETURN NOTICE WITH PAYMENT WHETHER PAYING IN PERSON OR BY MAIL. WHEN PAYING BY MAIL INCLUDE SELF-ADDRESSED STAMPED ENVELOPE FOR RECEIPT.

CITY OF HENDERSON
The City of Henderson
P.O. Box 716
Henderson, Kentucky 42419-0716
HENDERSON, KENTUCKY

Finance Department
Treasury Division

Phone: 270-831-1200
Fax: 270-831-1254

January 29th, 2016

Kentucky Utilities Co
C/O Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville, KY 40232-2010

FRANCHISE TAX FOR PUBLIC SERVICE COMPANY PROPERTY ASSESMENTS

For Tax Year 2015 **Tax Bill Number : 2001422** **GNC: 5225**

DUE DATE
February 29th, 2016

Tax Year 2015	Assessment	Tax Rate per $100	Amount Taxable
Real Estate	**38,777.00**	**.591**	**$ 229.17**
Tangible	**1,293.946.00**	**.813**	**$ 10,519.78**
Total Assessment	**1,332,723.00**		
TOTAL TAX DUE		**February 29th, 2016**	**$ 10,748.95**

PLEASE REMIT PAYMENT TO CITY OF HENDERSON, P.O. BOX 716, HENDERSON, KY. 42419

IF YOU HAVE ANY QUESTIONS PLEASE CALL Katherine Conway AT (270)831-1200 EXT 2258

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PROPERTY TAX BILL CITY OF MORGANFIELD, P O BOX 420 MORGANFIELD, KY 42437

PROPERTY CLASS - Rate Per $100 Value		Assessed Value				
Real Estate	.542	3,019,807.00			16,367.35	
Tangible	.5857	5,245,806.00			30,724.69	
2015 FRANCHISE TAX						
TOTALS		8,265,613.00			47,092.04	

DISTRICT	Bill No.

DATE PAID

AMOUNT PAID

TOTAL TAX

47,092.04 ✓

Mailed 1-19-2016

PENALTY & INTEREST BEGINS 3-20-2016

TAXPAYER'S NOTICE

Form 62A301-C REV. 5/05

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORPORATE TAX DEPT
P O BOX 32010
LOUISVILLE, KY 40232-2010

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JAN 28 2016
TAX DEPT.

RETURN NOTICE WITH PAYMENT WHETHER PAYING IN PERSON OR BY MAIL. WHEN PAYING BY MAIL INCLUDE SELF-ADDRESSED STAMPED ENVELOPE FOR RECEIPT.

City of Winchester

Finance Department
32 Wall Street, P. O. Box 4135
Winchester, KY 40392-4135
859-744-1660

January 25, 2016

Established 1793

Kentucky Utilities Co
c/o Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville KY 40232-2010

This is your Public Service Company Franchise Tax Bill for 2015

Account FR 13

	Assessed Value	Tax Rate	Property Tax Due 2/29/2016
GNC 005225			
Real Estate	836,793.00	0.00146	1,221.72
Tangible Personal	8,761,616.00	0.001499	13,133.66
Total Due			14,355.38

Please return notice with payment whether paying in person or by mail.
When paying by mail, include a self-addressed stamped envelope for receipt.

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JAN 27 2016
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61A255 (12-11)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT

For County, School or Special Taxes
Assessment for 2015 Taxes

Bill No. 3
GNC No. 5225 Type Co EU035
Date JANUARY 2016

Make Payment To : WAYNE AGENT, CRITTENDEN CO SHERIFF
Return Tax Payment To :
WAYNE AGEN, CRITTENDEN COUNTY SHERIFF
107 S MAIN ST STE 207
MARION KY 4264

Telephone Number 270-965-3400

Name KENTUCKY UTILITIES CO
Name C/O GREG MEIMAN CORPORATE TAX DEPT
Address PO BOX 32010
Address
City, State, ZIP Code LOUISVILLE KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
EXTENSION	209,996	3.600		75.60	7,068,536	4.380		3,096.02	3,171.62
COUNTY	209,996	12.000		252.00	7,068,536	12.400		8,764.98	9,016.98
HEALTH	209,996	3.000		63.00	7,068,536	3.000		2,120.56	2,183.56
LIBRARY	209,996	5.000		105.00	7,068,536	5.000		3,534.27	3,639.27
SCHOOL	209,996	47.800		1,003.78	7,068,536	47.800		33,787.60	34,791.38
				1,499.38				51,303.43	
	Important : See Reverse					Total District Tax $			52,802.81

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COMMONWEALTH OF KENTUCKY
DAVIESS COUNTY SHERIFF
212 SAINT ANN STREET
OWENSBORO KY 42303
SHERIFF'S TAX LINE – 270.685.6133

DAVIESS COUNTY KY - TAX STATEMENT

KENTUCKY UTILITIES CO
C/O GREG MEIMAN
PO BOX 32010
LOUISVILLE KY 40232

Bill Number 50033
Account No. 11
Parcel No.

TAXING DISTRICT		RATE @ $100	TAXABLE VALUE	TAX
STATE				
COUNTY	R	.1360	548,722	746.26
SCHOOL	R	.6330	548,722	3,473.41
COUNTY	T	.1800	6,381,614	11,486.91
SCHOOL	T	.6330	6,381,614	40,395.62
LIBRARY	R	.0640	548,722	351.18
LIBRARY	T	.0838	6,381,614	5,347.79
HEALTH		.0350	6,930,336	2,425.62
EXTENSION	R	.0090	548,722	49.38
EXTENSION	T	.0090	6,381,614	574.35
			GROSS AMOUNT OF TAX	64,850.52

Property Description:

PUBLIC SERVICE COMPANY
2015

AMOUNT DUE IF:

PAID BY: 3/01/16 64,850.52 ✓
PAID BY:
PAID BY:
PAID BY:

See Reverse Side for additional information
(TAXPAYER'S RECEIPT - RETAIN FOR YOUR RECORDS)
(PLEASE DETACH HERE)

BILL NUMBER 50033

KENTUCKY UTILITIES CO
PUBLIC SERVICE COMPANY
2015

RECEIVED
JAN 27 2016
TAX DEPT.

AMOUNT DUE IF:
PAID BY: 3/01/16 64,850.52
PAID BY:
PAID BY:
PAID BY:

(SHERIFF'S RECEIPT - PLEASE RETURN WITH YOUR PAYMENT)

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO 96
GNC NO
DATE 01/15/2016
TYPE:

Return Tax Payment to Sheriff
RY FREEMAN
ESTILL COUNTY
130 MAIN STREET RM 7
IRVINE, KY 40336
County Clerk SHERRY L FOX
Telephone 606-723-5156

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN: C/O GREG MEIMAN CORP TAX DEPT
Address: P O BOX 32010

LOUISVILLE KY 40232

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	AMB	199,859.00	0.1000		199.86		0.1000			199.86
REAL ESTATE	CNTY	199,859.00	0.0860		171.88		0.1050			171.88
REAL ESTATE	CONS	199,859.00	0.0150		29.98		0.0150			29.98
REAL ESTATE	EXT	199,859.00	0.0680		135.90		0.1745			135.90
REAL ESTATE	HLTH	199,859.00	0.0800		159.89		0.0800			159.89
REAL ESTATE	LIB	199,859.00	0.1300		259.82		0.1348			259.82
REAL ESTATE	SCHL	199,859.00	0.4540		907.36		0.4540			907.36
TANGIBLES	AMB		0.1000			5,218,076.00	0.1000		5,218.08	5,218.08
TANGIBLES	CNTY		0.0860			5,218,076.00	0.1050		5,478.98	5,478.98
TANGIBLES	EXT		0.0680			5,218,076.00	0.1745		9,105.54	9,105.54
TANGIBLES	HLTH		0.0800			5,218,076.00	0.0800		4,174.46	4,174.46
TANGIBLES	LIB		0.1300			5,218,076.00	0.1348		7,033.97	7,033.97
TANGIBLES	SCHL		0.4540			5,218,076.00	0.4540		23,690.07	23,690.07

Signed Sherry L Fox
County Clerk

Total Due: 56,565.79

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61A255(1-90)

Commonwealth of Kentucky

For County,School or Special Taxes

PROPERTY TAX STATEMENT
PUBLIC SERVICE COMPANY

Return Payment To:

Sheriff **Josh Neale**
County **Gallatin**
Address **PO Box 1025**
Warsaw, KY 41095

Bill No. 1
GNC No. 5225
Type Co. EU

Assessment for **2015** Taxes

Date 1/11/2016

Address:

Name: Kentucky Utilities
Greg Meiman Corporate Tax Dept
Street: PO Box 32010

City: Louisville

State: KY

Zip: 40232-2010

Attn: Greg Meiman Corporate Tax Dept

PAYMENT INSTRUCTIONS

This statement for public service company property taxes is due and payable 30 days after notice. **(KRS 136.050 (2))**. No discount is allowable for early payment. If not paid within 30 days, a 10 percent penalty of total tax plus interest at the interet rate per KRS 131.183 per annum applies. Make payment to sheriff of county named on statement.

Property Class-Rate Per $ 100				Value	County	School	Special
County- Real Estate	0.0890	School	0.6530	$194,437	$173.05	$1,269.67	********
County -Tangible	0.1630	School	0.6530	$2,800,096	$4,564.16	$18,284.63	********
Library- Real Estate	***********	**********	0.1150	$194,437	************	****************	$223.60
Library- Tangible	***********	**********	0.1154	$2,800,096	************	****************	$3,231.31
Health - Real Estate	***********	**********	0.0550	$194,437	************	****************	$106.94
Health - Tangible	***********	**********	0.0550	$2,800,096	************	****************	$1,540.05
Extension Service - Real Estate		**********	0.0560	$194,437	************	****************	$108.88
Extension Service - Tangible		**********	0.0560	$2,800,096	************	****************	$1,568.05
Soil Conservation - Real Estate		**********	0.0090	$194,437	************	****************	$17.50
Totals By Taxing District		KKKKKKKKKK			**$4,737.21**	**$19,554.30**	**$6,796.34**

Tracy Miles
County Clerk Phone:859-567-5411

Total Tax ***$31,087.85***

Payment Received By:

Sheriff/Deputy

Date

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Penalty
(10 percent of total tax if not paid within 30 days)

Interest
(tax interest rate per KRS 131.183 per annum if not paid within 30 days)

Total Tax, Penalty, and Interest

1A255 (1-06)
:ommonwealth of Kentucky
)EPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 246
GNC NO: 005225
DATE: 2016
TYPE: EU

Return Tax Payment to Sheriff
ALPH DALE BOZARTH
:OCK COUNTY
'O BOX 427
IAWESVILLE KY 42348
:ounty Clerk
elephone

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232 2010

lame of District	ounty/School/Spcls	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
EAL ESTATE	CNTY	251,863.00	0.0560		141.04		0.0560			141.04
EAL ESTATE	HLTH	251,863.00	0.0275		69.26		0.0275			69.26
EAL ESTATE	LIB	251,863.00	0.1160		292.16		0.1417			292.16
EAL ESTATE	SCHL	251,863.00	0.5940		1,496.07		0.5940			1,496.07
ANGIBLE	CNTY		0.0560			2,893,246.00	0.0560		1,620.22	1,620.22
ANGIBLE	HLTH		0.0275			2,893,246.00	0.0275		795.64	795.64
ANGIBLE	LIB		0.1160			2,893,246.00	0.1417		4,099.73	4,099.73
ANGIBLE	SCHL		0.5940			2,893,246.00	0.5940		17,185.88	17,185.88

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Signed Trina Ogle
County Clerk

Total Due: 25,700.00 ✓

Jessamine County Sheriff's Office

Kevin Corman, Sheriff
101 S. 2nd St. - Ste. A
Nicholasville, KY 40356
(859) 885-4139

Tax Year 2015

Bill Number 272
Date Mailed 01/29/2016

Taxpayer Kentucky Utilities Co.
C/O Greg Meiman - Corp. Tax Dept.
P O Box 32010

Louisville KY 40232-2010

Tax District	Real Assessment	Real Rate	Real Base	Tang Assessment	Tang Rate	Tang Base	Total Base Amount
County	540,534.00	0.0640	345.94	11,654,073.00	0.1300	15150.29	$15,496.23
School	540,534.00	0.6720	3632.39	11,654,073.00	0.6720	78315.37	$81,947.76
Health	540,534.00	0.0300	162.16	11,654,073.00	0.0300	3496.22	$3,658.38
Library	540,534.00	0.1030	556.75	11,654,073.00	0.1952	22748.75	$23,305.50
Ag. Ext	540,534.00	0.0170	91.89	11,654,073.00	0.0300	3496.22	$3,588.11
County Fire	482,395.00	0.0520	250.85	8,267,419.00	0.0480	3968.36	$4,219.21

Amount Due if paid:

Base Amount by	02/29/2016	$132,215.19 ✓
21% Penalty after	02/29/2016	$159,980.37

Comments Please make checks payable to:
Jessamine County Sheriff
101 S. 2nd St. - Ste. A
Nicholasville KY 40356

If there is any questions regarding this bill, contact Vita Savage, Office Manager at 859.885.9512.

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FEB 02 2016
TAX DEPT.

2015 Madison County Franchise Tax Statement

Mike Coyle, Sheriff
135 West Irvine St, Suite B01
Richmond, KY 40475
(859)623-1511

Bill No 151632

Franchise 2015
GNC: 005225

Kentucky Utilities Co
C/O Greg Meiman Corp Tax Dept
PO Box 32010
Louisville KY 40232-2010

Classification	Rate Per $100	Assessment	Tax
County Real Estate	0.083000	1,983,188	1,646.05
County Tangible	0.092670	30,905,736	28,640.35
Common School Real Estate	0.618000	1,955,171	12,082.96
Common School Tangible	0.618000	30,476,461	188,344.53
Berea School Real Estate	0.891000	28,017	249.63
Berea School Tangible	0.891000	429,275	3,824.84
Health(Real)	0.050000	1,983,188	991.59
Health(Tang)	0.050000	30,905,736	15,452.87
Extension(Real)	0.015000	1,983,188	297.48
Extension(Tang)	0.032500	30,905,736	10,044.36
Ambulance(Real)	0.049000	1,983,188	971.76
Ambulance(Tang)	0.060000	30,905,736	18,543.44
Library(Real)	0.056000	1,983,188	1,110.59
Library(Tang)	0.085000	30,905,736	26,269.88
		Total Tax	308,470.33 ✓

Face Amt Pd By Feb 29 2016	308,470.33
5% Pen Pd By Mar 31 2016	323,893.85
21% Pen After Mar 31 2016	373,249.10

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TAX DEPT.

61A255 (1-06) PUBLIC SERVICE COMPANY BILL NO: 11
Commonwealth of Kentucky PROPERTY TAX STATEMENT
DEPARTMENT OF REVENUE For County, School or Special Taxes DATE: 01/13/2016
Assessment for Year 2015 Taxes TYPE: EU

Return Tax Payment to Sheriff
PATRICK BOGGS
ON COUNTY
P O BOX 502
MAYSVILLE KY 41056
County Clerk STEPHANIE G SCHUMACHER
Telephone 606-564-3341

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN: GREG MEIMAN CORPORATE TAX DEPT
Address: P O BOX 32010
LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	CEXT	608,994.00	0.0400		243.60		0.0400			243.60
REAL ESTATE	CNTY	608,994.00	0.2180		1,327.61		0.2450			1,327.61
REAL ESTATE	HLTH	608,994.00	0.0800		487.20		0.0800			487.20
REAL ESTATE	LIB	608,994.00	0.0670		408.03		0.0670			408.03
REAL ESTATE	SCHL	608,994.00	0.4870		2,965.80		0.4870			2,965.80
TANGIBLE	CEXT		0.0400			12,663,370.00	0.0400		5,065.35	5,065.35
TANGIBLE	CNTY		0.2180			12,663,370.00	0.2450		31,025.26	31,025.26
TANGIBLE	HLTH		0.0800			12,663,370.00	0.0800		10,130.70	10,130.70
TANGIBLE	LIB		0.0670			12,663,370.00	0.0670		8,484.46	8,484.46
TANGIBLE	SCHL		0.4870			12,663,370.00	0.4870		61,670.61	61,670.61

Signed Stephanie G Schumacher
County Clerk

Total Due: 121,808.62

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JAN 26 2016
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky

PUBLIC SERVICE SECTION
PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No. 1601-03
GNC: 005225 Type Co: EU
DATE: JANUARY 27, 2016

RETURN TAX PAYMENT TO SHERIFF:

Fred Shortridge
Montgomery County Sheriff Ph 859-498-8704
1 Court St
Mt Sterling Kentucky 40353
County Clerk CHRIS COCKRELL
Telephone Number 859-498-8700

KENTUCKY UTILITIES CO

C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232-2010

RECEIVED
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TAX DEPT.

Name of District County/Schools/Specials	Assessed Value	Real Estate Rate Per $100 Value	Multi-Plier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-Plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE RATE-COUNTY	851,605.00	0.00074		630.19					630.19
REAL ESTATE RATE-SCHOOL	851,605.00	0.00489		4,164.35	-				4,164.35
TANGIBLE RATE-COUNTY					11,157,814.00	0.00079		8,814.67	8,814.67
TANGIBLE RATE - SCHOOL					11,157,814.00	0.00489		54,561.71	54,561.71
LIBRARY	851,605.00	0.00068		579.09	11,157,814.00	0.001086		12,117.39	12,696.48
HEALTH	851,605.00	0.0005		425.80	11,157,814.00	0.0005		5,578.91	6,004.71
EXTENSION	851,605.00	0.00052		442.83	11,157,814.00	0.001102		12,295.91	12,738.74
AMBULANCE	851,605.00	0.00072		613.16	11,157,814.00	0.000983		10,968.13	11,581.29
COUNTY FIRE DISTRICT	279,197.00	0.001		279.20	7,472,615.00	0.001		7,472.62	7,751.82
									-
									-
									-
									-
					7,134.62			111,809.34	118,943.96
Important: See Reverse								Total District Tax	118,943.96

61A255 (7-08)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No.

GNC No. 005225 Type Co EU

Date 01-25-16

Make Payment To : NELSON COUNTY SHERIFF

Return Tax Payment To :
NELSON COUNTY SHERIFF
210 NELSON COUNTY PLAZA
BARDSTOWN, KY. 40004

Telephone Number (502) 348-1840

Name KENTUCKY UTILITIES CO
Name C/O GREG MEIMAN CORPORATE TAX DEPT
Address PO BOX 32010
Address
City, State, ZIP Code LOUISVILLE KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
COUNTY	264,706.00	0.1430		378.53	7,018,849.00	0.1514		10,626.54	11,005.07
SCHOOL	239,658.00	0.7400		1,773.47	6,358,423.00	0.7400		47,052.33	48,825.80
LIBRARY	264,706.00	0.0810		214.41	7,018,849.00	0.0810		5,685.27	5,899.68
EXTENSION SERVICE	264,706.00	0.0100		26.47	7,018,849.00	0.0100		701.88	728.35
SOIL CONSERVATION	264,706.00	0.0052		13.76					13.76
FIRE DISTRICT	17,830.00	0.0700		12.48					12.48

RECEIVED
FEB 02 2016
TAX DEPT.

Important : See Reverse

Total District Tax $ 66,485.14

US-Mailed Ck
01/25/16

61A255 (12-11)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No.

GNC No. 005225 Type Co EU

Date 12/16/15 Type Tax 035

1/25/16

Make Payment To : Michael E. Peters, ROCKCASTLE SHERIFF

Return Tax Payment To :

Rockcastle County Sheriff, Michael E. Peters

205 East Main Street Box 2

Mt. Vernon, KY 40456

Prepared By:Danetta Ford Allen, Rockcastle Co. Clerk (606)256-2831

Telephone Number 606-256-2032

Name Kentucky Utilities Company

Name C/O Greg Meiman Corporate Tax Dept

Address PO BOX 32010

Address

City, State, ZIP Code Louisville, KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
COUNTY	156,858	7.600		119.21	4,950,813	7.600		3,762.62	3,881.83
LIBRARY	156,858	7.400		116.07	4,950,813	7.400		3,663.60	3,779.67
SOIL CONSERVATION	156,858	0.900		14.12	4,950,813	0.900		445.57	459.69
HEALTH DEPARTMENT	156,858	7.000		109.80	4,950,813	7.000		3,465.57	3,575.37
SCHOOL BOARD	156,858	40.900		641.55	4,950,813	40.900		20,248.83	20,890.38
EXTENSION SERVICES	156,858	4.000		62.74	4,950,813	4.000		1,980.33	2,043.07

RECEIVED
FEB 02 2016
TAX DEPT.

Important : See Reverse

Total District Tax $ 34,630.01

PROPERTY TAX BILL Commonwealth of Kentucky 2015 ROWAN CO (FRANCHISE) 600 WEST MAIN, MOREHEAD KY 40351

PROPERTY CLASS - Rate Per $100 Value	Assessed Value	State Tax	County Tax	School Tax	Special Tax	Tax District	Bill No.
COUNTY REAL .067	401,951		269.31			01	201513F
COMMON SCHOOL REAL .568	401,951			2,283.08			
COUNTY TANG .080	5,227,293		181.83			Sheriff	
COMMON SCHOOL TANG .568	5,227,293			29,691.02		MATT SPARKS	
HEALTH (REAL) .045	401,951				180.88	Date	
HEALTH (TANG) .045	5,227,293				2,352.28		
LIBRARY (REAL) .100	401,951				401.95	By	
LIBRARY (TANG) .1389	5,227,293				7,260.71		
TOTALS BY TAXING DISTRICT			4,451.14	31,974.10	10195.82	Total Tax	

RECEIVED JAN 26 2016 TAX DEPT.

FRANCHISE FOR TAX YEAR 2015 [redacted] County Clerk 46,621.06

GNC: 005225

Amount Due if:

2 % Discount		Paid by	
Face Amount		Paid by FEB 29 2016	46,621.06
5 % Penalty	2331.05+	Paid by MAR 31 2016	48,952.11
21 % Penalty	9790.43+	Paid after MAR 31 2016	56,411.49

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232-2010

Total Amount Paid

TAXPAYER'S NOTICE

Rev. Form 62A301 - T-04-05

201513F

Return Notice With Check Payable to Sheriff: When Paying by Mail, Include Self-Addressed Stamped Envelope for Receipt.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No. 16-01
GNC No. 005225 Type Co. EU
Date 1-26- 2016

Return Tax Payment To Sheriff:
CLETE MCANINCH RUSSELL COUNTY
410 MONUMENT SQUARE SUITE 109
JAMESTOWN, KY 42629

County Clerk
Telephone Number

Name KENTUCKY UTILITIES CO
Name C/O GREG MEIMAN CORPORAYE TAX DEPT
Address P O BOX 32010
Address
City, State, ZIP Code LOUISVILLE, KY 40232-2010

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
COUNTY	66,608	.067		44.63	5,460,838	.092		5,023.97	5,068.60
SCHOOL		.504		335.71		.504		27,522.63	27,858.34
AMBULANCE		.058		38.64		.067		3,658.77	3,697.41
EXTENSION		.032		21.32		.044		2,402.77	2,424.09
HEALTH		.045		29.98		.045		2,457.38	2,487.36
HOSPITAL		.066		43.97		.092		5,023.97	5,067.94
LIBRARY		.061		40.63		.061		3,331.12	3,371.75
SOIL CONSERVATION		.009		6.00		------			6.00

RECEIVED
FEB 02 2016
TAX DEPT.

Important: See Reverse

Total District Tax $ 49,981.49

Attachment to Response to KIUC-1 Question No. 23
Page 166 of 220
Garrett

2015 Whitley County Franchise Property Tax Statemen

20150601 05

Bill Number:	60105
District:	01-Regular
Location:	GNC: 005225
Description:	EU
Map Number:	FRANCHISE
Farm Acres:	0

Exemption: $0.00 Deed:

Colan Harrell
Whitley County Franchise Sher
PO BOX 118
Williamsburg, KY 40769
Phone (606)549-6006

NOT ELIGIBLE	48,609.43
Face Amount If Paid By FEB 14 201	49,601.46
NOT ELIGIBLE	52,081.53
21% Penalty Paid After FEB 14 201	60,017.77

KENTUCKY UTILITES CO
C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 402322010

Amount Enclosed: ______________

Check or Money Order Number: ______________

Detach and return with check payable to Sheriff Colan Harrell: When paying by mail, include a self-addressed stamped envelope for receipt.

2015 Whitley County Franchise Property Tax Statement

IF THIS TAX BILL SHOULD BE PAID BY MORTGAGE COMPANY OR NEW OWNER, PLEASE FORWARD TO RESPONSIBLE PARTY PROMPTLY.

Colan Harrell
Whitley County Franchise Sher
PO BOX 118
Williamsburg, KY 40769
Phone (606)549-6006

Bill Number:	60105
District:	01-Regular
Location:	GNC: 005225
Description:	EU
Map Number:	FRANCHISE
Farm Acres:	0

Exemption: $0.00 Deed:

Description	Rate Per $100	Assessed Value	Tax
COUNTY Franchise Real 15	0.0780	298,712	233.00
COUNTY Franchise Tang 15	0.0970	8,019,520	7,778.93
WC SCHOOL Francise Real 15	0.4160	284,348	1,182.89
WC SCHOOL Franchise Tang 15	0.4160	5,161,239	21,470.75
Franchise Real 15	0.0520	298,712	155.33
Franchise Tang 15	0.0520	8,019,520	4,170.15
Franchise Real 15	0.0400	298,712	119.48
Franchise Tang 15	0.0400	8,019,520	3,207.81
Franchise Real 15	0.0140	298,712	41.82
Franchise Real 15	0.0530	298,712	158.32
Franchise Tang 15	0.1382	8,019,520	11,082.98

RECEIVED
JAN 28 2016
TAX DEPT.

Total Tax	49,601.46
Amount Due if:	
NOT ELIGIBLE	48,609.43
Face Amount If Paid By FEB 14 2016	49,601.46
NOT ELIGIBLE	52,081.53
21% Penalty Paid After FEB 14 2016	60,017.77

KENTUCKY UTILITES CO
C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 402322010

No. 1875 2015

HARLAN INDEPENDENT SCHOOL DISTRICT

HARLAN, KENTUCKY

TAXPAYER'S RECEIPT

PROPERTY CLASS	RATE	PER $100 VALUE	ASSESSMENT	TAXES
REAL PROPERTY	.4860		460,280.	2,236.96
TANGIBLE PROPERTY	.4860		5,625,584	27,340.33
SPECIAL VOTED BUILDING FUND				
TOTALS			6,085,864	29,577.29

RETURN NOTICE WITH PAYMENT WHETHER PAYING IN PERSON OR BY MAIL. WHEN PAYING BY MAIL, INCLUDE SELF-ADDRESSED STAMPED ENVELOPE FOR RECEIPT.

MAKE CHECK PAYABLE TO: Harlan Independent School
Tax Collector
P.O. Box 1193
Harlan, Kentucky 40831

RECEIVED
JAN 26 2016
TAX DEPT.

Kentucky Utilities Co.
C/O Greg Meiman Corporate Tax Dept.
P O Box 32010
Louisville, KY 40232-2010

AMOUNT DUE IF		
PAID BY	2-21-16	29,577.29
PAID BY		
PAID BY		
PAID AFTER		
ADVERTISING AND COSTS		
TOTAL AMOUNT PAID		

Attachment to Response to KIUC-1 Question No. 23
Page 168 of 220
Garrett

Commonwealth of Kentucky

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes

Manual Bill Issued Due to
Special Assessment of Services
Categories different from other bills

Bill No. 270235

Return Payment to:
OFFICE OF THE FAYETTE COUNTY SHERIFF
County FAYETTE
Address PO BOX 34148
LEXINGTON, KY 40588-4148

Date 1/12/2016

Assessment for 2015 Taxes

Name KENTUCKY UTILITIES CO.
Address C/O GREG MEIMAN CORPORATE TAX DEPT
P.O. BOX 32010
LOUISVILLE, KY 40232-2010

PROPERTY CLASS - Rate per $100 value

Real Estate Assessed Value	$20,147,960.00	Tangible Assessed Value	$193,903,536.00
Refuse Assessed Value	$14,662,008.00	Street Cleaning Assessed Value	$14,607,662.00
Street Lights Assessed Value	$17,753,173.00		

	Real Estate Rate	Tangible Rate	Real Estate Tax	Tangible Tax	Totals by Taxing District
County	0.0800	0.0915	$16,118.37	$177,421.74	$193,540.10
School	0.7400	0.7400	$149,094.90	$1,434,886.17	$1,583,981.07
Extension	0.0032	0.0038	$644.73	$7,368.33	$8,013.07
Soil/Water	0.0005		$100.74		$100.74
...lth	0.0280	0.0280	$5,641.43	$54,292.99	$59,934.42
...tran	0.0600	0.0600	$12,088.78	$116,342.12	$128,430.90
Refuse	0.1431		$20,981.33		$20,981.33
Street Cleaning	0.0097		$1,416.94		$1,416.94
Street Lights	0.0210		$3,728.17		$3,728.17
Totals			$209,815.39	$1,790,311.35	$2,000,126.74

Total Tax $2,000,126.74 ✓

Signed DONALD W BLEVINS JR/BY Lisa C. Hemmm Deputy Clerk

Payment Received By KATHY H. WITT Sheriff

Date________ By________ Deputy

PENALTY (1)

INTEREST (2)

10% SHERIFF ADD ON FEE (3)

TOTAL TAX PENALTY AND INTEREST

PAYMENT INSTRUCTIONS

This statement for public service company property taxes is due and payable 30 days after notice (KRS 136.050(2)). No discount is allowable for early payment. If not paid within 30 days, a 10% penalty of total tax plus interest at the tax interest rate per KRS 131.183 per annum applies. Make payment to sheriff of county named on statement. Also, a 10% Sheriff Add-On Fee is applied to tax and penalty.

(1) 10 percent of total tax if not paid within 30 days
(2) the tax interest rate per KRS 131.183 per annum if not paid within 30 days
(3) 10% of total tax including 10% penalty, but without interest

If there is a question regarding this bill, please contact ________ at ( ) ________

RECEIVED
JAN 26 2016
TAX DEPT.

Make Check Payable To:
Livy Leavell Jr.
Christian County Sheriff
216 W. 7th Street
Hopkinsville, KY 42240

Property Tax Bill

Commonwealth of Kentucky
2015 Christian County Franchise Bill
Today's Date: Monday, January 25, 2016

TUCKY UTILITIES CO
C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232-2010

Bill Date: January 25, 2016
Bill Number: F-3
Map Number:
PVA Account Number: 005225
Tax District: 00

Property Location:

Deed Book / Deed Page:
/

Property Description:
EU 035

Farm Acres:
County Clerk: Michael A. Kem

Assessment:

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	16,135.00	0.1870	30.17
REAL_ESTATE	SCHOOL	16,135.00	0.3980	64.22
REAL_ESTATE	HEALTH	16,135.00	0.0320	5.16
REAL_ESTATE	EXTENSION	16,135.00	0.0240	3.87
REAL_ESTATE	SOIL CONSV	16,135.00	0.0040	0.65
WESTFK#1	WEST FORK PD	16,135.00	0.0600	9.68
TANG_45	COUNTY	1,878,394.00	0.2000	3,756.79
TANG_45	SCHOOL	1,878,394.00	0.3980	7,476.01
TANG_45	HEALTH	1,878,394.00	0.0320	601.09
TANG_45	EXTENSION	1,878,394.00	0.0332	623.63
			Total Assessment:	12,571.27

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 12,571.27

RECEIVED
FEB 02 2016
TAX DEPT.

PUBLIC SERVICE COMPANY
DISTILLED SPIRITS OR TELECOMS
PROPERTY TAX STATEMENT

61A255&61A500
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

TAX YEAR 2015

GNC: 5225
Date: 01/13/2016
Bill No.

TAXPAYER'S NAME

KENTUCKY UTILITIES COMPANY
C/O GREG MEIMAN, CORPORATE TAX DEPT
P O BOX 32010

LOUISVILLE, KY 40232-2010

Return Payment To:

JOHN ROOT
LAUREL COUNTY SHERIFF
203 SOUTH BROAD ST.
LONDON, KY 40741

For County, School or Special Taxes
Assessment for Taxes

Name of District County/School/Specials	Rate (Per $100 Value)		Assessed Value	Tax Due	District Total
COUNTY GENERAL	REAL	.06200	1975852	1225.03	
COUNTY GENERAL	TANG	.06200	20156806	12497.22	13722.25
COMMON SCHOOL	REAL	.49000	1964943	9628.22	
COMMON SCHOOL	TANG	.49000	19509462	95596.36	105224.58
INDEPENDENT SCH	REAL	.47400	10909	51.71	
INDEPENDENT SCH	TANG	.47400	647344	3068.41	3120.12
LIBRARY	REAL	.08000	1975852	1580.68	
LIBRARY	TANG	.13830	20156806	27876.86	29457.54
HEALTH	REAL	.04000	1975852	790.34	
HEALTH	TANG	.04000	20156806	8062.72	8853.06
EXTENSION	REAL	.03100	1975852	612.51	
EXTENSION	TANG	.05040	20156806	10159.03	10771.54
CONSERVATION DIS	REAL	.00400	1975852	79.03	79.03
FIRE DISTRICT	REAL	.05700	0	0.00	0.00
TOTAL TAXES					171228.12

10 percent penalty if not paid within 30 days	17122.81
10 percent of tax and penalty Sheriff's add on fee	18835.09
Total due if paid after 2/26/2016	207186.03

This statement for public service company property taxes is due and payable 30 days after notice. No discount is allowed for early payment. If not paid within 30 days, a 10% penalty plus a 10% sheriff's add on fee is applied (KRS 134.430(3).

DEAN JOHNSON, LAUREL County Clerk

RECEIVED
2016
TAX DEPT.

VED
16
TAX DEPT.

61A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No. 2015-8
GNC No 5225 Type Co. EU
Date 1/20/2016

Return Tax Payment to Sheriff:
Curt Folger
Lincoln County Sheriff
104 N Second St
Stanford, KY 40484
County Clerk George O. Spoonamore IV
Telephone Number (606)365-2696

Name KENTUCKY UTILITIES CO
Attn C/O GREG MEIMAN CORPORATE TAX DEPT
Address PO BOX 32010
Address
City, State, ZIP Code LOUISVILLE, KY 40232-2010

JAN 27 2016

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate	Multi-plier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
COUNTY	294754	0.101	1	297.70	9358713	0.101	1	9452.30	9750
HEALTH DEPT	294754	0.04	1	117.90	9358713	0.04	1	3743.49	3861.39
LIBRARY	294754	0.078	1	229.91	9358713	0.078	1	7299.80	7529.71
COUNTY EXTENSION	294754	0.039	1	114.95	9358713	0.0771	1	7215.57	7330.52
AMBULANCE	294754	0.048	1	141.48	9358713	0.048	1	4492.18	4633.66
FIRE	202892	0.066	1	133.91	7030429	0.066	1	4640.08	4773.99
SCHOOL	294754	0.498	1	1467.87	9358713	0.498	1	46606.39	48074.26

RECEIVED
4 2016
TAX DEPT.

Important: See Reverse — **Total District Tax $** 85953.53

Attachment to Response to KIUC-1 Question No. 23
Page 172 of 220
Garrett

PUBLIC SERVICE COMPANY
DISTILLED SPIRITS OR TELECOMS
PROPERTY TAX STATEMENT

61A255&61A500
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

TAX YEAR 2015

GNC: 5225

Date: 02/01/2016

Bill No.

TAXPAYER'S NAME

Return Payment To:

KENTUCKY UTILITIES COMPANY
C/O GREG MEIMAN, CORPORATE TAX DEPT
P O BOX 32010

LOUISVILLE, KY 40232-2010

GREG SPECK
PULASKI COUNTY SHERIFF
P.O. BOX 752
SOMERSET, KY 42502

For County, School or Special Taxes
Assessment for Taxes

Name of District County/School/Specials	Rate (Per $100 Value)		Assessed Value	Tax Due	District Total
COUNTY GENERAL	REAL	.05100	1170313	596.86	
COUNTY GENERAL	TANG	.05100	21633920	11033.30	11630.16
COMMON SCHOOL	REAL	.52300	584615	3057.54	
COMMON SCHOOL	TANG	.52300	14573491	76219.36	79276.90
SCIENCE HILL SCH	REAL	.63300	74477	471.44	
SCIENCE HILL SCH	TANG	.63300	649228	4109.61	4581.05
LIBRARY	REAL	.06600	1170313	772.41	
LIBRARY	TANG	.07690	21633920	16636.48	17408.89
HEALTH	REAL	.03000	1170313	351.09	
HEALTH	TANG	.03000	21633920	6490.18	6841.27
EXTENSION	REAL	.01450	1170313	169.70	
EXTENSION	TANG	.01560	21633920	3374.89	3544.59
TOTAL TAXES					123282.86

10 percent penalty if not paid within 30 days	12328.29
10 percent of tax and penalty Sheriff's add on fee	13561.11
Total due if paid after 3 / 1 /2016	149172.26

This statement for public service company property taxes is due and payable 30 days after notice. No discount is allowed for early payment. If not paid within 30 days, a 10% penalty plus a 10% sheriff's add on fee is applied (KRS 134.430(3).

Linda Burnett
LINDA BURNETT, PULASKI County Clerk

RECEIVED
FEB 16 2016
TAX DEPT.

Jefferson County Kentucky

2015 **Property Tax Notice** Date Issued 01/29/16

Col. John Aubrey Sheriff Jefferson County

Bill Number	Property ID Number	Type of Property
2151501	98-7000-0000-5225	REAL ESTATE

Owner of record

IF YOU HAVE QUESTIONS ABOUT YOUR PROPERTY TAXES
PLEASE CALL THE APPROPRIATE OFFICE:
2015 TAX BILL SHERIFF 574-5479
ASSESSMENTS PVA OFFICE 574-6380
URBAN SERV. DIST. LOUISVILLE 574-5479
YOU CAN CHECK YOUR TAX INFO. AT OUR WEBSITE WWW.JCSOKY.ORG

KENTUCKY UTILITIES COMPANY
%GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232-2010

If Paid By:	Balance Due:	
01/29/16-02/29/16	21,859.73	(Gross Tax)
03/01/16-04/15/16	26,450.27	(10%+10%)

Taxes not paid by the last date shown are considered delinquent and may be subject to legal action.

Here's how we figured your gross tax: CUST # 968232

Schedule / Description of Property	Taxable Assessment		Taxing Jurisdiction	Tax Rate/$100	Gross Tax
5620 NEW CUT RD	Total	2622	LK DML FRN R E	.1000	2.62
Dist Block Lot Sublot		1836126	URBAN.SD FR RE	.3538	6,496.21
98 7000 0000 5225		1838748	METRO FRN REAL	.1254	2,305.79
		1838748	JCPS FRN REAL	.7100	13,055.11

Pg. 1 of 2

RECEIVED
FEB 04 2016
TAX DEPT.

Mailed 2-19-2016

⬇ Detach and mail THIS STUB with your check or money order for proper credit. Retain top section for your records. ⬇

Jefferson County Property Tax Payment Stub

Tax Year: 2015

Amount You Are Paying:

Bill Number	Property ID Number	Type of Property
2151501	98-7000-0000-5225	REAL ESTATE

CUST # 968232

Property Owner:

KENTUCKY UTILITIES COMPANY
%GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232-2010

YOU MAY PAY YOUR TAX BILL AT ANY METRO ... BANK LOCATION

If Paid By:	Balance Due:	
01/29/16-02/29/16	21,859.73	(Gross Tax)
03/01/16-04/15/16	26,450.27	(10%+10%)

Make your check or money order payable to:

Jefferson County Sheriff's Office
P.O. Box 34570
Louisville, KY 40232-4570

Bill Is For:

5620 NEW CUT RD/2015 TAX YR

987000000052252151501010021859731002645027000000000001

Jefferson County Kentucky

2015 **Property Tax Notice** **Date Issued** 01/29/16

Col. John Aubrey
Sheriff
Jefferson County

Bill Number	Property ID Number	Type of Property
2151501	86-005225	PERSONAL

Owner of record

IF YOU HAVE QUESTIONS ABOUT YOUR PROPERTY TAXES
PLEASE CALL THE APPROPRIATE OFFICE:
ASSESSMENTS: PVA OFFICE 574-6380
2015 TAX BILL SHERIFF 574-5479
URBAN SERVICE DIST LOUISVILLE 574-5479

KENTUCKY UTILITIES COMPANY
%GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232-2010

If Paid By:	Balance Due:	
02/29/16	771,417.42	(Gross Tax)
04/15/16	933,415.09	(10%+10%)

Taxes not paid by the last date shown are considered delinquent and may be subject to legal action.

Here's how we figured your gross tax:

CUST # 798137

Schedule / Description of Property	Taxable Assessment	Taxing Jurisdiction	Tax Rate/$100	Gross Tax
19 Franchise Tax	649,112	Lake Dreamland Fire District	1000	649.11
19 Franchise Tax	53,057,010	Urban Service District	5660	300,302.68
19 Franchise Tax	53,706,122	Jefferson County	1660	89,152.16
		Jefferson Co. Public Schools	7100	381,313.47

Pg. 2 of 2

$ 793,227.15

Amount paid to date: .00

↓ Detach and mail THIS STUB with your check or money order for proper credit. Retain top section for your records. ↓

Jefferson County Property Tax Payment Stub

Tax Year: 2015

Amount You Are Paying:

Bill Number	Property ID Number	Type of Property
2151501	86-005225	PERSONAL

CUST # 798137

Property Owner:

KENTUCKY UTILITIES COMPANY
%GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232-2010

YOU MAY PAY YOUR TAX BILL AT
A

If Paid By:	Balance Due:	
02/29/16	771,417.42	(Gross Tax)
04/15/16	933,415.09	(10%+10%)

Make your check or money order payable to:

Jefferson County Sheriff's Office
P.O. Box 34570
Louisville, KY 40232-4570

Bill Is For:

/2015 TAX YR
Personal property file schedule

860052250000002151501020771417425093341509300000000 09

61A255&61A500
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky

PUBLIC SERVICE COMPANY DISTILLED SPIRITS OR TELECOMS PROPERTY TAX STATEMENT

TAX YEAR 2015

GNC: 5225

Date: 01/18/2016

Bill No.

TAXPAYER'S NAME

KENTUCKY UTILITIES COMPANY
C/O GREG MEIMAN, CORPORATE TAX DEPT
P O BOX 32010

LOUISVILLE, KY 40232-2010

Return Payment To:

LESLIE E. SMITH
HARLAN COUNTY SHERIFF
P.O. BOX 978
HARLAN KY 40831

For County, School or Special Taxes
Assessment for Taxes

Name of District County/School/Specials	Rate (Per $100 Value)	Assessed Value	Tax Due	District Total
COUNTY GENERAL	REAL .41500	2208338	9164.60	
COUNTY GENERAL	TANG .66680	35213269	234802.08	243966.68
COMMON SCHOOL	REAL .49400	1748058	8635.41	
COMMON SCHOOL	TANG .49400	29587685	146163.16	154798.57
LIBRARY	REAL .08500	2208338	1877.09	
LIBRARY	TANG .13300	35213269	46833.65	48710.74
HEALTH	REAL .05500	2208338	1214.59	
HEALTH	TANG .05500	35213269	19367.30	20581.89
EXTENSION	REAL .09000	2208338	1987.50	
EXTENSION	TANG .13410	35213269	47220.99	49208.49
CONSERVATION DIS	REAL .01100	2208338	242.92	242.92
TOTAL TAXES				517509.29

10 percent penalty if not paid within 30 days	51750.93
10 percent of tax and penalty Sheriff's add on fee	56926.02
Total due if paid after 02/29/2016	626186.24

This statement for public service company property taxes is due and payable 30 days after notice. No discount is allowed for early payment. If not paid within 30 days, a 10% penalty plus a 10% sheriff's add on fee is applied (KRS 134.430(3).

DONNA G. HOSKINS, HARLAN County Clerk

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61A255 (1-
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SE[illegible]CE COMPANY PROPERTY TAX STATEMENT

For City Taxes

Assessment for 2014 Taxes

Bill No. 2016-73
GNC No. 5225 Type Co. EU
Date 2/3 2016

Return Tax Payment To
City of Mt. Sterling
33 N. Maysville Street
Mt. Sterling, KY 40353

City Clerk Jeanette Bertram
Telephone Number 859-498-8725

Name Kentucky Utilities Co.
Name C/o Greg Meiman Corp. Tax Dept.
Address
Address P.O. Box 32010
City, State, ZIP Code Louisville, Ky 40232-2010

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
City of Mt. Sterling	457,690.00	.252		1,153.38	3,220,650.00	.288		9,275.52	10,428.90

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Important: See Reverse

Total District Tax $ 10,428.90

Attachment to Response to KIUC-1 Question No. 23
Page 177 of 220
Garrett

61A255 (1-(
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky

PUBLIC SER CE COMPANY PROPERTY TAX STATEMENT

For City Taxes
Assessment for 2015 Taxes

Bill No. 2016-6
GNC No. 52225 Type Co. EU
Date 2/3 2016.

Return Tax Payment To City of Mt. Sterling
33 N. Maysville Street
Mt. Sterling, KY 40353

City Clerk Jeanette Bertram
Telephone Number 859-498-8725

Name Kentucky Utilities Co.
Name C/O Greg Meiman Corp. Tax Dept.
Address
Address P.O. Box 32010
City, State, ZIP Code Louisville, Ky 40323

Name of District County/School/Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multiplier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multiplier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
City of Mt. Sterling	572,409.00	.256		1,465.37	3,685,188.00	.286		12,005.04	12,005.04

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TAX DEPT.

Important: See Reverse

Total District Tax $ 12,005.04

Attachment to Response to KIUC-1 Question No. 23
Page 178 of 220
Garrett

2016-02-29 15:54 FCC Mailroom 859 253 8392 >> From: +18592533344 Page: 1/1 Date: 2/29/2016 3:55:07 PM

LEXINGTON KENTUCKY

Donald W. Blevins
Clerk of Fayette County

FAX FROM THE RENEWAL DEPARTMENT

To:	Ellie	Fax #:	
From:	Ashley Deshon	Date:	2/29/2016
Re:	Fleet Renewal and Property Tax		
Pages:	2 inc. cover		

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Ellie,

The fleet for KU is ready for pick-up. The total is $280,899.36.

Property tax= $160,539.86
Renewals= $120,356.50
Dup Reg.= $ 3.00

Let me know if you have questions, 859-253-8379.

Thanks,
Ashley

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MAR 01 2016
ACCOUNTS PAYABLE

162 East Main St. • Lexington, KY 40507 • (859) 253-8379
Fax (859) 231-9619

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#4847

DISBURSEMENT REQUEST

(Corporate Policy & Procedures are on Intranet)

ENTERED

DONB/E 030116

Specify Company:

____ LG&E Energy Corp
____ Louisville Gas & Electric Company (Utility)
x Kentucky Utilities Company
____ Western Kentucky Energy Corp

RECEIVED
MAR 01 2016
ACCOUNTS PAYABLE

3/1/16

SUPPLIER NAME: Don Blevins, Fayette County Clerk
REMITTANCE ADDRESS: 162 Main Street
Lexington, KY

DUE DATE: ASAP

SPECIAL INSTRUCTIONS: Call Ellie Stump at x-3611 for pickup

ACCOUNTING DISTRIBUTION				
PROJECT	TASK	EXP TYPE	EXP ORG	AMOUNT
106909	236033	0699	015950	$160,539.86
106909	165100	0699	015590	$120,359.50
			TOTAL	$280,899.36

PREPARER SIGNATURE: Ellie Stump DATE: 3/1/2016
APPROVER SIGNATURE: John Wolfe DATE: 3/1/2016
APPROVER TITLE: VP Electric Distribution

Line 1 - 2016 Property Tax for vehicles renewed in March
Line 2 - License and registration for March renewals, renewed thru 3/1/17

Form SD 71-A
Rev. 9/09

3/1/2016

LEXINGTON
KENTUCKY

Donald W. Blevins
Clerk of Fayette County

August 12, 2016

Ellie Stump
LG&E and KU Energy, LLC
820 West Broadway
Louisville, Ky. 40232

Re: Fleet Totals

Dear Ellie:

The registration due is $2931.00. The tax amount is $45,174.22. There were two delinquencies on permanent truck trailers. Plate #66522T and #66840T.

If I can be of further assistance, please contact me by phone at 859-253-3344 ext. 239 or email at renew@fayettecountyclerk.com.

Sincerely,

La Vern Sallee
Deputy Clerk
Fayette County

RECEIVED
AUG 12 2016
ACCOUNTS PAYABLE

162 East Main St. • Lexington, KY 40507 • 859 / 253-3344
Fax 859 / 231-9619

V # 56847

INV # FAYETTE081216

8/12/16

DISBURSEMENT REQUEST

(Corporate Policy & Procedures are on Intranet)

RECEIVED

AUG 1 2 2016

ACCOUNTS PAYABLE

Specify Company:

	LG&E Energy Corp	X	Kentucky Utilities Company
	Louisville Gas & Electric Company (Utility)		Western Kentucky Energy Corp

SUPPLIER NAME: Fayette County Clerk, Donald Blevins

REMITTANCE ADDRESS: 162 Main Street
Lexington, KY

DUE DATE: ASAP

SPECIAL INSTRUCTIONS: Call Ellie Stump at x-3611 for pickup

ACCOUNTING DISTRIBUTION				
PROJECT	TASK	EXP TYPE	EXP ORG	AMOUNT
106909	165100	0699	015590	$2,931.00
106909	236033	0699	015590	$45,174.22
			TOTAL	$48,105.22

PREPARER SIGNATURE:	Ellie Stump	DATE:	8/12/2016
APPROVER SIGNATURE:	[signature]	DATE:	8/12/2016
APPROVER TITLE:	Manager, Transportation		

Line 1 - License and registration for September renews, renewed thru Sept. 2017
Line 2 - 2016 Property tax on September renewals

Form SD 71-A
Rev. 9/09

8/12/2016

Danville Schools
152 E. Martin Luther King Boulevard
Danville, KY 40422
Phone ~ 859.936.8507
Fax ~ 859.238.1330

INVOICE

BILL TO:
Kentucky Utilities Co
C/O Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville, KY 40232-2010

FEBRUARY 16, 2016
2015 BILL

PUBLIC SERVICE COMPANY PROPERTY TAX

CERTIFICATION DATE:	DESCRIPTION:	ASSESSMENT:	TAX RATE:	AMOUNT DUE:
Original Cert Date: 12/16/15	REAL ESTATE	$64,200.00	.923	$592.57
Original Cert Date: 12/16/15	TANGIBLE PROPERTY	$11,293,513.00	.923	$104,239.12

TOTAL AMOUNT DUE BY MARCH 17, 2016: $104,831.69

PLEASE MAKE CHECKS PAYABLE TO:
DANVILLE SCHOOLS
ATTN: TAX COLLECTOR

Questions?
Please contact Sharon Browning (859) 936-8507 or
Email: sharon.browning@danville.kyschools.us

PROPERTY TAX STATEMENT
FOR SPECIAL TAXES
Public Service Company

TAX BILL NUMBER KUC
Tax year 2015 Date Invoiced FEBRUARY 17. 2016

City of Pineville P 0 Box 688 Pineville, Ky. 40977

Franchise Name KENTUCKY UTILITIES CO.

Attn: GREG MEIMAN - CORP TAX DEPT.

Address: P O BOX 32010

City, State & Zip LOUISVILLE, KY 40232-2010

PAYMENT INSTRUCTIONS
Payment upon Receipt
Remit To: City of Pineville
Ina L. Robbins, Clerk/Treas.
P 0 Box 688
Pineville, Ky. 40977

Description -- Tax Rates --- Assessed Valuation

Real Estate @ 27.9 $ 1,423,900.00
Total Assessment.
Taxes Due $ 3,972.68

Tangible @ 27.9 $ 3,565,812.00
Total Assessment.
Taxes Due $ 9.948.62

TOTAL TAXES DUE $ 13,921.30

SIGNATURE

Payment received by

Date

Hardin County Sheriff
John Ward, Sheriff
150 North Provident Way, Suite 101
Elizabethtown, KY 42701
(270) 765-5133

Tax Year	2015	**Bill Number**	369
		Date Mailed	01/27/2016

Taxpayer KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232-2010

Tax District	Real Assessment	Real Rate	Real Base	Tang Assessment	Tang Rate	Tang Base	Total Base Amount
County	3,184,931.00	0.1090	3471.57	38,698,794.00	0.1126	43574.84	$47,046.41
County School	3,166,328.00	0.6290	19916.20	33,200,069.00	0.6290	208828.43	$228,744.63
Elizabethtown Schools	18,603.00	0.7510	139.71	5,498,725.00	0.7510	41295.42	$41,435.13
Health	3,184,931.00	0.0220	700.68	38,698,794.00	0.0220	8513.73	$9,214.41
Soil	3,184,931.00	0.0015	47.77	0.00	0.0000	0.00	$47.77
Ag. Extension	3,184,931.00	0.0130	414.04	38,698,794.00	0.0191	7391.47	$7,805.51

Amount Due if paid:

Base Amount by	03/27/2016	$334,293.86
5% Penalty by	04/27/2016	$351,008.56
21% Penalty after	04/27/2016	$404,495.58

Comments Make checks payable to: Hardin County Sheriff

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Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

BILL NO: 640
GNC NO: 005225
DATE 02/19/2016
TYPE: EU

Return Tax Payment to Sheriff
IY CRAVENS SHERIFF
HENRY COUNTY
P O BOX 298
NEW CASTLE, KY 40050
County Clerk
Telephone

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL EST	CEXT	557,426.00	0.0470		261.99		0.0711			261.99
REAL EST	CNTY	557,426.00	0.1170		652.19		0.1590			652.19
REAL EST	HLTH	557,426.00	0.0400		222.97		0.0400			222.97
REAL EST	LIB	557,426.00	0.0930		518.41		0.1358			518.41
REAL EST	SOIL	557,426.00	0.0070		39.02					39.02
COMMON SCHOOL	SCH1	377,113.00	0.7170		2,703.90		0.7170			2,703.90
EMINENCE SCHOC	SCH2	180,313.00	0.8030		1,447.91		0.8030			1,447.91
TANGIBLE	CEXT		0.0470			10,280,782.00	0.0711		7,309.64	7,309.64
TANGIBLE	CNTY		0.1170			10,280,782.00	0.1590		16,346.44	16,346.44
TANGIBLE	HLTH		0.0400			10,280,782.00	0.0400		4,112.31	4,112.31
TANGIBLE	LIB		0.0930			10,280,782.00	0.1358		13,961.30	13,961.30
COMMON SCHOOL	SCH1		0.7170			8,511,331.00	0.7170		61,026.24	61,026.24
EMINENCE SCHOC	SCH2		0.8030			1,769,451.00	0.8030		14,208.69	14,208.69

Signed Shanda C Archer
County Clerk

Total Due: 122,811.01 ✓

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61A255 (1-06)

Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No. ______

GNC No. 005225 Type Co. EU

Date 02/12/ 2016

Return Tax Payment To Sheriff :	Matt Sanderson Hopkins County 25 E Center St Madisonville, KY 42431
County Clerk: Telephone Number	Keenan Cloern (270) 821 - 7361

Name	KENTUCKY UTILITIES CO
Name	GREG MEIMAN CORP TAX DEPT
Address	PO BOX 32010
Address	
City, State, ZIP Code	LOUISVILLE, KY 40232-2010

Name of District County / School / Specials	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
County Real Estate	$3,643,668.00	0.1450		$5,283.32				$0.00	$5,283.32
County Tangible				$0.00	$36,659,265.00	0.2248		$82,410.03	$82,410.03
Dawson Ind Real Estate	$105,810.00	0.7040		$744.90				$0.00	$744.90
Dawson Ind Tangible				$0.00	$2,035,407.00	0.7040		$14,329.27	$14,329.27
Hopkins School Real Estate	$3,537,858.00	0.6600		$23,349.86				$0.00	$23,349.86
Hopkins School Tangible				$0.00	$34,623,858.00	0.6600		$228,517.46	$228,517.46
Health Dept Real Estate	$3,643,668.00	0.0390		$1,421.03				$0.00	$1,421.03
Health Dept Tangible				$0.00	$36,659,265.00	0.0390		$14,297.11	$14,297.11
Extension Service Real Estate	$3,643,668.00	0.0210		$765.17				$0.00	$765.17
Extension Service Tangible				$0.00	$36,659,265.00	0.0291		$10,667.85	$10,667.85
Earlington Fire District R/E only	$3,074,592.00	0.10000		$3,074.59				$0.00	$3,074.59
West Fork - Pond River	$126.00	$0.06		$0.08					$0.08

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TAX DEPT.

Total Real Estate $34,638.95 + **Total Tangible** $350,221.72 = $384,860.67

2015 Knox Franchise Property Tax Statement

Bill Number: 5225
District: Regular
Location:
Description:
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

2015005225

Mike Smith
Knox Franchise Sheriff
234 Court Square

Barbourville KY

Kentucky Utilities Company
c/o Greg Meiman, Corporate Tax Dept.
PO Box Box 32010
Louisville KY 402322010

2% Discount If Paid BY Mar 2, 2016	118,275.64
Face Amount If Paid By Apr. 2, 2016	120,689.43
5% Penalty If Paid By May 2, 2016	126,723.90
21% Penalty Paid After May 2, 2016	146,034.21

Amount Enclosed: ____________

Check or Money Order Number: ____________

Detach and return with check payable to Sheriff Mike Smith: When paying by mail, include a self-addressed stamped envelope for receipt.

2015 Knox Franchise Property Tax Statement

IF THIS TAX BILL SHOULD BE PAID BY MORTGAGE COMPANY OR NEW OWNER, PLEASE FORWARD TO RESPONSIBLE PARTY PROMPTLY.

Mike Smith
Knox Franchise Sheriff
234 Court Square

Barbourville KY

Bill Number: 5225
District: Regular
Location:
Description:
Map Number:
Farm Acres: 0 Exemption: $0.00 Deed:

Description	Rate Per $100	Assessed Value	Tax
County REAL ESTATE 2015	0.1090	437,806	477.21
County TANG 2015	0.2442	10,988,215	26,833.22
School REAL ESTATE 2015	0.5040	437,806	2,206.54
School TANG 2015	0.5040	10,988,215	55,380.60
LIBRARY(REAL) 2015	0.0430	437,806	188.26
LIBRARY(TANG) 2015	0.1178	10,988,215	12,944.12
CO EXT(REAL) 2015	0.0350	437,806	153.23
CO EXT (TANG) 2015	0.0789	10,988,215	8,669.70
HEALTH(REAL) 2015	0.0250	437,806	109.45
HEALTH(TANG) 2015	0.0250	10,988,215	2,747.05
AMBU(REAL) 2015	0.0120 1,204	437,806	52.71
AMB(TANG) 2015	0.0259	10,988,215	2,845.95
SOIL CONS 2015	0.0190	437,806	83.18
HOSPITAL Real 2015	0.0700	437,806	306.46
Hosp. Tang.	0.0700	10,988,215	7,691.75
		Total Tax	120,689.43

Kentucky Utilities Company
c/o Greg Meiman, Corporate Tax Dept.
PO Box Box 32010
Louisville KY 402322010

Amount Due If:	
2% Discount If Paid BY Mar 2, 2016	118,275.64
Face Amount If Paid By Apr. 2, 2016	120,689.43
5% Penalty If Paid By May 2 2016	126,723.90
21% Penalty Paid After May 2, 2016	146,034.21

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FRANCHISE TAX BILL - McCracken County, Kentucky

2015 Tax Year **Bill Number: 40007**

Billed to:

Kentucky Utilities
C/O Greg Meiman Corporate Tax Department
P.O. Box 32010
Louisville, KY 40232-2010

GNC	005225
TYPE CO	EU
TAX TYPE	035
Certification Date	16-Dec-15

	Real Estate			Tangible Property		
District	Rate	Assessment	Tax Due	Rate	Assessment	Tax Due
County	0.09800	851,285	$ 834.26	0.10200	7,235,762	$ 7,380.48
County School	0.52400	851,285	4,460.73	0.52400	7,235,762	37,915.39
Library	0.06000	851,285	510.77	0.06950	7,235,762	5,028.85
Health	0.02400	851,285	204.31	0.02400	7,235,762	1,736.58
Extension Service	0.02100	851,285	178.77	0.05750	7,235,762	4,160.56
Mental Health	0.01100	851,285	93.64	0.01100	7,235,762	795.93
Paducah Jr College	0.02000	851,285	170.26	0.02580	7,235,762	1,866.83
Reidland Fire	0.07200	438,275	315.56	0.07200	623,613	449.00
Hendron Fire	0.06000	4,844	2.91	0.06590	-	-
Concord Fire	0.07500	45	0.03	0.07500	136,708	102.53
West McC Fire	0.06200	255,926 /53.55	158.67	0.06200	1,686,525	1,045.65
Lone Oak Fire	0.04400	-	-	0.04770	-	-
Melber Fire	0.05200	-	-	0.05200	-	-
	Total Real Estate Tax		$ 6,929.91	Total Tangible Property Tax		$ 60,481.80

This statement for public service company property taxes is due and payable 30 days after notice (KRS 136.050(2)). No discount is allowable for early payment. If not paid within 30 days, a 10% penalty of total tax plus an additional 10% of the total amount due applies.

Total Tax Due **By** March 15, 2016	$ 67,411.71
Penalties Due After March 16, 2016	14,156.46
Amount Due **After** March 16, 2016	$ 81,568.17

Please Make Check Payable to:

Jon Hayden,
McCracken County Sheriff
301 South Sixth Street
Paducah, KY 42003

If you have any questions regarding your tax billing, please contact us at (270) 444-4719.

INVOICE

Campbellsville Independent School Tax Office
203 North Court Street, 1st Floor
Campbellsville, KY 42718

INVOICE # 5225
ORIGINAL CERTIFICATION DATE: 12/16/15
DATE: MARCH 8, 2016

TO:
Kentucky Utilities Company
C/O Greg Meiman Corporate Tax Dept
P.O. Box 32010
Louisville, KY 40232-2010

FROM:
Melissa L. Dooley, Tax Collector
Email: [illegible]
Phone: (270) 465-3867

TAXABLE ITEM	PAYMENT TERMS
$ 28,419.56	2% Discount if Paid by 04/08/16
$ 28,999.55	Face Amount Due by 05/09/16
$ 30,449.53	5% Penalty After 05/09/16
$ 31,899.51	10% Penalty After 06/08/16

DESCRIPTION	TOTAL
Real Estate Value: $ 393,914.00	
Tangible Value: $ 4,391,491.00	
2015 Tax Rate: 60.6%	$ 28,999.55
TOTAL DUE	$ 28,999.55

REMITTANCE

Date Paid:
Amount Paid: $
Check #:

Franchise Tax for Campbellsville Independent School
Certification of Property Assessment
Commonwealth of Kentucky Dept of Revenue

Make all checks payable to Campbellsville Independent School Tax Office
THANK YOU FOR YOUR BUSINESS!

61A255 (7-08)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

Kentucky UNBRIDLED SPIRIT

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT

For County, School or Special Taxes

Assessment for 2015 Taxes

Bill No.

GNC No. 5225 Type Co EU

Date 3/15/16

Make Payment To :	Bobby Davidson, Sheriff
Return Tax Payment To :	
Livingston County Sheriff	
P.O. Box 340	
Smithland KY 42081	
Telephone Number	Bobby Davidson, Sheriff 270-928-2122

Name	KENTUCKY UTILITIES
Name	C/O GREG MEIMAN CORPORATE TAX DEPT
Address	
Address	P.O. BOX 32010
City, State, ZIP Code	LOUISVILLE, KY 40232-2010

Name of District County/School/Special	Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier See Reverse	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier See Reverse	Tax Due Tangible	Total Real and Tangible Tax Due
County	264,077	11.900	0%	314.25	3,725,355	16.700	0%	6,221.34	6,535.59
School	264,077	45.000	0%	1,188.35	3,725,355	45.200	0%	16,838.60	18,026.95
Health	264,077	3.000	0%	79.22	3,725,355	3.000	0%	1,117.61	1,196.83
Extension	264,077	5.100	0%	134.68	3,725,355	6.950	0%	2,589.12	2,723.80
Soil Conservation	264,077	1.560	0%	41.20	3,725,355	0.000	0%	0.00	41.20
Burna Fire	0	10.000	0%	0.00	0	10.000	0%	0.00	0.00
Grand Rivers Fire	0	10.000	0%	0.00	0	10.000	0%	0.00	0.00
Ledbetter Fire	0	10.000	0%	0.00	0	10.000	0%	0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
				0.00				0.00	0.00
Important : See Reverse						Total District Tax $			28,524.37

Public Service Company
Property Tax Statement
For County, School, or Special Taxes

Taylor County

Bill # 142
Assessment for: 2015 Taxes
8-Mar-16

GNC# 5225

Commonwealth of Kentucky
Return Payment to:
Allen Newton, Taylor County Sheriff
203 N. Court Street
Campbellsville, KY 42718

Kentucky Utilities Co.
% Greg Meiman Corporate Tax Dept.
P.O. Box 32010
Louisville, KY 40232-2010

Property Class	Rate Per $100 Value	Assessed Value	County Tax	School Tax	Special Tax
Real Estate County	.0810%	$632,361.00	$512.21		
Real Estate School	.5620%	$238,447.00		$1,340.07	
Real Estate Health	.0325%	$632,361.00			$205.52
Real Estate Hospital	.0820%	$632,361.00			$518.54
Real Estate Library	.0670%	$632,361.00			$423.68
Real Esate Coop Ext.	.0370%	$632,361.00			$233.96
		$0.00			
Tangible County	.0900%	$ 5,673,468.00	$5,106.12		
Tangible School	.5620%	$ 1,281,977.00		$7,204.71	
Tangible Health	.0325%	$ 5,673,468.00			$1,843.88
Tangible Hospital	.0910%	$ 5,673,468.00			$5,162.86
Tangible Library	.1158%	$ 5,673,468.00			$6,569.88
Tangible Coop Ext.	.0666%	$ 5,673,468.00			$3,778.53
Totals by Taxing Districts			$5,618.33	$8,544.78	$18,736.85

Total Tax Due $32,899.96

Penalty-10 percent of total tax if not paid within 30 days
Interest-the tax interest rate per KRS 131.183 per annum if not paid within 30 days

Total Tax, Penalty, & Interest

Signed: Mark Carney, Clerk

Payment received by:____________________, Sheriff
By:____________________, Deputy

Date:__________

61A25[(01-06)

Commonwealth of Kentucky

For County, School or Special Taxes

PROPERTY TAX STATEMENT
PUBLIC SERVICE COMPANY

Return Payment To:

Sheriff **Howard Wayne Niemeier**
County **Bracken**
Address **PO Box 186**
Brooksville KY 41004

Certification dat 12/16/2015
Print date : 12/16/2015

GNC: 005225
TYPE CO: EU
TAX TYPE: 035
Date 4/5/2016
Postmark Apr. 7, 2016

Assessment 2015 Tax Bill

Name: KENTUCKY UTILITIES CO

Street: PO BOX 32010

City: LOUISVILLE
State: KY
Zip: 40232-2010

Attn: GREG MEIMAN CORPORATE TAX DEPT

PAYMENT INSTRUCTIONS

This statement for public service company property taxes is due and payable 30 days after notice. (KRS 136.050 (2). No discount is allowable for early payment. If not paid within 30 days, a 10 percent penalty plus a 10 percent sheriff's add-on fee (KRS 134.430(3) of total tax and interest at the tax interest rate per KRS 131.183 per annum applies. Make payment to sheriff of county named on statement.

Property Class-Rate Per $ 100					Value	County	School	Special
Real Estate	County	0.3960			$ 126,545.00	$501.12		
	Health	0.0480				$60.74		
	Ambulance	0.0860				$108.83		
	Extension	0.0670				$84.79		
	Soil	0.0200				$25.31		
	Library	0.0920				$116.42		
Real Estate	School	0.3690			$ 96,015.00		$354.30	
Tangible	County	0.3960			$ 6,775,959.00	$26,832.80		
	Health	0.0480				$3,252.46		
	Ambulance	0.0860				$5,827.32		
	Extension	0.0670				$4,539.89		
	Library	0.0920				$6,233.88		
Tangible	School	0.3690			$ 4,944,432.00		$18,244.95	
Totals By Taxing District			>>>>>>>>>>>>>>>>>>>>			**$47,583.56**	**$18,599.25**	

Rae Jean Poe
County Clerk

Total Tax ***$66,182.81***

Payment Received By:

Sheriff/Deputy

Date

Penalty
(10 percent of total tax if not paid within 30 days)
Fee (10% sheriff's add-on)
Interest
(tax interest rate per KRS 131.183 per annum if not paid within 30 days)

Total Tax, Penalty, and Interest

COMMONWEALTH OF KENTUCKY
PROPERTY TAX STATEMENT
PUBLIC SERVICE COMPANIES

AUGUSTA BOARD OF EDUCATION
307 BRACKEN STREET
AUGUSTA KY 41002

ASSESSMENT FOR 2015 TAXES

DATE 4-12-16

NAME OF BUSINESS: Kentucky Utilities Co
c/o Greg Meiman Corporate Tax Dept
PO Box 32010
Louisville, Ky 40232-2010

PAYMENT INSTRUCTIONS:

THIS STATEMENT IS FOR PUBLIC SERVICE COMPANY PROPERTY TAXES DUE AND PAYABLE 30 DAYS AFTER NOTICE (KRS 136.050(2)).

PROPERTY TAX CLASS-RATE $100 VALUE		ASSESSED VALUE	SCHOOL TAX	TOTAL
REAL ESTATE RATE	SCHOOL	30,530	.0065	198.44
TANGIBLE RATE	SCHOOL	1,831,527	.0065	11,904.92
TOTAL BY TAXING DISTRICT:			$ 12,103.36	

SPECIAL INSTRUCTIONS:

SIGNED: Lisa McCane SUPERINTENENT

PAYMENT RECEIVED BY: ______ TREASURER

TOTAL TAX........ $______

DATE PAYMENT WAS RECEIVED ______ RECEIPT NUMBER______

RECEIVED
MAY 18 2016
TAX DEPT.

Make Check Payable To:
Stan Hudson
Caldwell County Sheriff
100 East Market St.
Room 25
Princeton, KY 42445

Property Tax Bill

Commonwealth of Kentucky
2015 Caldwell County Franchise Bill
Today's Date: Wednesday, May 4, 2016

KENTUCKY UTILITIES CO
C/O GREG MEIMAN CORP TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232-2010

Bill Date: May 4, 2016
Bill Number: F1602
Map Number:
GNC: 005225 EU
Tax District: 02

Property Location:

Deed Book / Deed Page:
/

Property Description:

Farm Acres:
County Clerk: Toni Watson

Assessment:

Property Class	Tax Authority	Assessed Value	Rate / $100	Tax
REAL_ESTATE	COUNTY	112,620.00	0.1030	116.00
REAL_ESTATE	SCHOOL	112,620.00	0.3760	423.45
REAL_ESTATE	EXTENSION	112,620.00	0.0400	45.05
REAL_ESTATE	HEALTH	112,620.00	0.0500	56.31
REAL_ESTATE	HOSPITAL	112,620.00	0.0550	61.94
REAL_ESTATE	LIBRARY	112,620.00	0.0530	59.69
REAL_ESTATE	CITY OF FREDONIA	1,695.00	0.2700	4.58
TANG_45	COUNTY	6,044,854.00	0.1150	6,951.58
TANG_45	SCHOOL	6,044,854.00	0.3760	22,728.65
TANG_45	EXTENSION	6,044,854.00	0.0527	3,185.64
TANG_45	HEALTH	6,044,854.00	0.0500	3,022.43
TANG_45	HOSPITAL	6,044,854.00	0.0550	3,324.67
TANG_45	LIBRARY	6,044,854.00	0.0728	4,400.65
TANG_45	CITY OF FREDONIA	889,079.00	0.2700	2,400.51
			Total Assessment:	**46,781.15**

Adjustments:

Adjustment Type	Assessment Type	Assessed Value	Amount
		Total Adjustments:	

GROSS TAX IS DUE WITHIN 30 DAYS OF THIS NOTICE.
IF NOT PAID, A 10% PENALTY PLUS 10% INTEREST PER ANNUM WILL APPLY

Payments:

Receipt Number	Check / MO Number	Paid By	Teller	Payment Method	Paid Date/Time	Amount
					Total Payments:	

Balance Due: 46,781.15

RECEIVED
MAY 18 2016
TAX DEPT.

Bourbon County Sheriff's Office

Mark L. Matthews, Sheriff
301 Main Street, Suite 104
Paris, KY 40361
(859) 987-2130

Tax Year	2015	**Bill Number**	374
		Date Mailed	06/01/2016
		GNC #	005225

Taxpayer Kentucky Utilities Co
C/O Greg Meiman Corp Tax Dept
P.O. Box 32010

Louisville KY 40232-2010

Tax District	Real Assessment	Real Rate	Real Base	Tang Assessment	Tang Rate	Tang Base	Total Base Amount
County	799,118.00	0.1270	1014.88	17,395,572.00	0.1270	22092.38	$23,107.26
School	794,467.00	0.5910	4695.30	17,272,922.00	0.5910	102082.97	$106,778.27
Library	799,118.00	0.0920	735.19	17,395,572.00	0.1239	21553.11	$22,288.30
Health	799,118.00	0.0460	367.59	17,395,572.00	0.0460	8001.96	$8,369.55
Ag. Extension	799,118.00	0.0280	223.75	17,395,572.00	0.0397	6906.04	$7,129.79
Soil Conservation	799,118.00	0.0070	55.94	0.00	0.0000	0.00	$55.94

Amount Due if paid:

Base Amount by	08/01/2016	$167,729.11
5% Penalty by	09/01/2016	$176,115.57
21% Penalty after	09/01/2016	$202,952.23

Comments PLEASE MAKE CHECK PAYABLE TO: MARK L. MATTHEWS, SHERIFF
MAIL TO: 301 MAIN STREET, SUITE 104
PARIS, KY 40361

PLEASE DO NOT INCLUDE PAYMENT FOR THIS FRANCHISE TAX BILL WITH PAYMENT FOR REAL ESTATE TAX BILLS

Somerset Independent School

Tax Collector

P O Box 989
Somerset, KY 42502
Phone (606) 679-6366

DATE: July 11, 2016
INVOICE # 2016040

FOR: **CERTIFICATION OF PROPERTY ASSESSMENT 2015**

BILL TO:

KENTUCKY UTILITIES CO
C\O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE, KY 40232-2010

DESCRIPTION	DEPOSIT	RATE	AMOUNT
TANGIBLE PERSONAL	$6,411,201.00	0.71	$45,519.53
PERSONAL PROPERTY	$511,221.00	0.71	$3,629.67

page 2 of 2

AMOUNT DUE $49,149.20

10% PENALTY AND 1% INTEREST PER MONTH IF PAID AFTER 90 DAYS

AMOUNT PAID

Make all checks payable to City of Somerset

THANK YOU

Add :
Invoice 2016040 49,149.20
Invoice 2016039 3389.86
52,539.06

City of Somerset

Tax Collector

P O Box 989
Somerset, KY 42502
Phone (606) 679-6366

DATE: July 11, 2016
INVOICE # 2016039

FOR: **CERTIFICATION OF PROPERTY ASSESSMENT 2015**

BILL TO:

KENTUCKY UTILITIES CO
C\O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE , KY 40232-2010

DESCRIPTION	DEPOSIT	RATE	AMOUNT
TANGIBLE PERSONAL	$2,101,486.00	0.13	$2,731.93
REAL ESTATE	$506,097.00	0.13	$657.93
		AMOUNT DUE	$3,389.86
		AMOUNT PAID	

Page 1 of 2

Make all checks payable to City of Somerset

THANK YOU

ommonwealth of Kentucky
EPARTMENT OF REVENUE

PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

GNC NO: 005225
DATE 08/23/2016
TYPE: EU

eturn Tax Payment to Sheriff
ARY KINDER
NG COUNTY
0 COURT SQUARE
EMINGSBURG, KY 41041
ounty Clerk JARROD FRITZ
elephone 606 845 8461

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN:
Address: C/O GREG MEIMAN CORPORATE TAX DEPT
PO BOX 32010
LOUISVILLE KY 40232

ame of District ounty/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
AL ESTATE	AMB	19,828.00	0.0450		8.92		0.0450			8.92
AL ESTATE	CEXT	19,828.00	0.0450		8.92		0.0594			8.92
AL ESTATE	CNTY	19,828.00	0.1600		31.72		0.1600			31.72
AL ESTATE	HLTH	19,828.00	0.0500		9.91		0.0500			9.91
AL ESTATE	LIB	19,828.00	0.0840		16.66		0.1179			16.66
AL ESTATE	SCHL	19,828.00	0.4380		86.85		0.4380			86.85
AL ESTATE	SOIL	19,828.00	0.0150		2.97					2.97
NGIBLES	AMB		0.0450			2,820,751.00	0.0450		1,269.34	1,269.34
NGIBLES	CEXT		0.0450			2,820,751.00	0.0594		1,675.53	1,675.53
NGIBLES	CNTY		0.1600			2,820,751.00	0.1600		4,513.20	4,513.20
NGIBLES	HLTH		0.0500			2,820,751.00	0.0500		1,410.38	1,410.38
NGIBLES	LIB		0.0840			2,820,751.00	0.1179		3,325.67	3,325.67
NGIBLES	SCHL		0.4380			2,820,751.00	0.4380		12,354.89	12,354.89

igned ______________________
County Clerk

Total Due: 24,714.96

V# 151164

KENTUC101416

DISBURSEMENT REQUEST

(Corporate Policy & Procedures are on Intranet)

10/14/16

RECEIVED

OCT 14 2016

ACCOUNTS PAYABLE

Specify Company:

_____ LG&E and KU Services Company

__X__ Kentucky Utilities Company

_____ Louisville Gas & Electric Company (Utility)

SUPPLIER NAME: **Kentucky State Treasurer**

REMITTANCE ADDRESS: **Revenue Cabinet**

Frankfort, KY 40619

DUE DATE: 24-Oct-16

SPECIAL INSTRUCTIONS: Sharon Bloat - Corporate Tax - LGE BLDG -2686

ACCOUNTING DISTRIBUTION				
PROJECT	TASK	EXP TYPE	EXP ORG	AMOUNT
106909	236033	0699	015590	$12,222,519.70
			TOTAL	$12,222,519.70

PREPARER SIGNATURE: Sharon K Bloat	DATE: 10/14/2016
APPROVER SIGNATURE: KAWBlake	DATE: 10/14/16
APPROVER TITLE: Chief Financial Officer	

CEC 10/14/16

gfw 10/14/16

REASON FOR EXPENDITURE: State Property Tax Payment - 2016 Assessment- Paid with Protest. 1/01/15 - 12/31/15. FEIN: 61-0247570

Form SD 71-A
Rev. 07/09

10/13/2015

Attachment to Response to KIUC-1 Question No. 23
Page 200 of 220
Garrett

KENTUCKY REVENUE CABINET
DEPARTMENT OF PROPERTY VALUATION
FRANKFORT, KENTUCKY 40620

NOTICE OF ASSESSMENT FOR PUBLIC SERVICE COMPANY

KENTUCKY UTILITIES COMPANY
P.O. BOX 32010
LOUISVILLE, KY 40232-2010

DATE: October 24, 2016 TAX YEAR: 2016

PROPERTY CLASS STATE AND LOCAL	ASSESSMENT	TAX AMOUNT
REAL ESTATE	257,256,228	313,852.60
*TANGIBLE PROPERTY @ .45	1,128,092,042	5,076,414.19
BUSINESS INVENTORY (OT) @ .05	0	0.00
STATE TAX ONLY		
MANUFACTURING MACHINERY @ .15	2,549,398,939	3,824,098.41
POLLUTION CONTROL @ .15	1,972,542,562	2,958,813.84
BUSINESS INVENTORY (MM) @ .05	98,514,261	49,257.13
FOREIGN TRADE ZONE @ .001	8,353,166	83.53
INTANGIBLES @ .25	0	0.00
INTANGIBLES @ .015	0	0.00
TOTAL ASSESSMENT	6,014,157,198	12,222,519.70

RECEIVED
OCT 14 2016
ACCOUNTS PAYABLE

*EXCLUDES MOTOR VEHICLES

51A255 (1-06)
Commonwealth of Kentucky
DEPARTMENT OF REVENUE

PUBLIC SERVICE COMPANY
PROPERTY TAX STATEMENT
For County, School or Special Taxes
Assessment for Year 2015 Taxes

31
GNC NO 5225
DATE 09/20/2016
TYPE: EU
Guts#

Return Tax Payment to Sheriff
DEREK ROBBINS
BOYLE COUNTY
321 WEST MAIN STREET RM 111
DANVILLE K Y 40422
County Clerk TRILLE L BOTTOM
Telephone 859-238-1110

Taxpayer Name: KENTUCKY UTILITIES CO
ATTN: GREG MEIMAN CORPORATE TAX DEPT
Address: PO BOX 32010

LOUISVILLE KY 40232 2010

Name of District County/School/Spcls		Assessed Value Real Estate	Real Estate Rate Per $100 Value	Multi-plier	Tax Due Real Estate	Assessed Value Tangible	Tangible Rate Per $100 Value	Multi-plier	Tax Due Tangible	Total Real and Tangible Tax Due
REAL ESTATE	AGRI	3,198,435.00	0.0310		991.51		0.0908			991.51
REAL ESTATE	CNTY	3,198,435.00	0.0650		2,078.98		0.0757			2,078.98
REAL ESTATE	HLTH	3,198,435.00	0.0270		863.58		0.0270			863.58
REAL ESTATE	LIB	3,198,435.00	0.0750		2,398.83		0.0931			2,398.83
REAL ESTATE	SOIL	3,198,435.00	0.0100		319.84					319.84
REAL SCHOOL-CO	SCHL	3,134,235.00	0.7140		22,378.44		0.7140			22,378.44
REAL FIRE	FIRE	432,240.00	0.1000		432.24		0.1000			432.24
CITY OF DANVILLE	DANV	2,760,666.00	0.1460		4,030.57		0.1460			4,030.57
TANGIBLE	AGRI		0.0310			22,830,841.00	0.0908		20,730.40	20,730.40
TANGIBLE	CNTY		0.0650			22,830,841.00	0.0757		17,282.95	17,282.95
TANGIBLE	HLTH		0.0270			22,830,841.00	0.0270		6,164.33	6,164.33
TANGIBLE	LIB		0.0750			22,830,841.00	0.0931		21,255.51	21,255.51
TANGIBLE SCHOO	SCHL		0.7140			11,537,328.00	0.7140		82,376.52	82,376.52
TANGIBLE FIRE	FIRE		0.1000			5,859,316.00	0.1000		5,859.32	5,859.32
CITY OF DANVILLE	DANV		0.1460			15,902,007.00	0.1460		23,216.93	23,216.93

Signed Trille L Bottom
County Clerk

Total Due: 210,379.95 ✓

CITY OF NORTON TREASURER
Barbara Muir, MGT
P.O. Box 618
Norton, VA 24273
Phone: (276) 679-7246

TAX YEAR 2016

Ticket #	Account Number
6	4

REAL ESTATE TAX STATEMENT

DUE DATE May 15, 2016

*000009/1--S 0--B 0

KENTUCKY UTILITIES CO.
BRUCE RAQUE/TAX PROJECT MGR.
PO BOX 32010
LOUISVILLE KY 40232-2010

The Treasurer only collects taxes, does not assess property, fix valuations, set rates or grant exemptions and has no authority to make changes to the tax roll.

Inquiries on Assessments and Address Changes, contact the Commissioner of the Revenue's office at 276-679-0031.

First half 2016 Real Estate taxes are due by May 15, 2016.
If paid after due date, add penalty of:
Assessed tax $10.00 or under - no more than tax
Assessed tax $10.00 - $100.00 - $10.00 minimum
Assessed tax over $100.00 - 10% of tax

Interest is 10% per year beginning June 1, 2016.

Code of Virginia 58.1-3913 Delinquent tax MUST be paid First.

If check is not honored by bank, receipt is void. 1 of 1

See the back of this notice for payment options and additional information.

Tax Rate	Land	Building and Improvements	Total Value	Annual Tax	Map Number and Description
0.90	10827942	0	10827942	97451.48	R/E

Line #	Tax Year	Ticket Number	TAX	Adjustments & Payments		TOTAL DUE
	2016	6	48725.74			48725.74
FIRST HALF - TOTAL DUE BY May 15, 2016						48725.74

KENTUCKY UTILITIES COMPANY
DBA OLD DOMINION POWER CO NORT
C/O SCOTT WILLIAMS, MGR TAX AC
PO BOX 32010
LOUISVILLE KY 40202

exceed the levy) shall be charged after 05/31/2016.

5. 5.0% Interest/Year Beginning 06/01/2016.

INFORMATION/INQUIRIES
Commissioner of Revenue............................276-328-3556
Payments...276-328-3666

See the back of this notice for payment options and additional information.

Under the State Law ALL Payments Shall be applied to the Oldest Tax Owing

YEAR	TAX ID NUMBER	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	0009	10075670	16A0009	SCC () 009 RE

DUE DATE: May 31, 2016 BS SCC BIG STONE GAP KU REAL ESTATE

0.0000 ac.

DESCRIPTION	RATE	TOTAL VALUE	TOTAL TAX CHARGES
Land		0	
Buildings, utilities, etc		4,068,420	
TOTAL:	0.00600	4,068,420	24,410.52
Due May 31, 2016			12,205.26
Due Oct. 31, 2016			12205.26
TOTAL DUE:			24410.52

RECEIVED
MAY 18 20[illegible]
TAX DEPT.

IT IS THE OBLIGATION OF THE TAXPAYER TO SEE THAT THE PROPER TAX BILL IS RECEIVED AND PAID ON TIME.

WHEN PAYING BY MAIL SEND A STAMPED
SELF ADDRESSED ENVELOPE IF A RECEIPT IS DESIRED.

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS

KENTUCKY UTILITIES COMPANY
DBA OLD DOMINION POWER CO NORT
C/O SCOTT WILLIAMS, MGR TAX AC
PO BOX 32010
LOUISVILLE KY 40202

5. 5.0% Interest/Year Beginning 06/01/2016.

INFORMATION/INQUIRIES

Commissioner of Revenue............................276-328-3556
Payments...276-328-3666

See the back of this notice for payment options and additional information.

Under the State Law ALL Payments Shall be applied to the Oldest Tax Owing

YEAR	TAX ID NUMBER	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	0005	10075670	16A0005	SCC () 005 RE

DUE DATE: May 31, 2016 GL SCC GLADEVILLE KU REAL ESTATE

0.0000 ac.

DESCRIPTION	RATE	TOTAL VALUE	TOTAL TAX CHARGES
Land		0	
Buildings, utilities, etc		9,475,180	
TOTAL:	0.00600	9,475,180	56,851.08
Due May 31, 2016			28,425.54
Due Oct. 31, 2016			28425.54
TOTAL DUE:			56851.08

RECEIVED
MAY 19 2016
TAX DEPT.

IT IS THE OBLIGATION OF THE TAXPAYER TO SEE THAT THE PROPER TAX BILL IS RECEIVED AND PAID ON TIME.

WHEN PAYING BY MAIL SEND A STAMPED SELF ADDRESSED ENVELOPE IF A RECEIPT IS DESIRED.

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS

KENTUCKY UTILITIES COMPANY
DBA OLD DOMINION POWER CO NORT
C/O SCOTT WILLIAMS, MGR TAX AC
PO BOX 32010
LOUISVILLE KY 40202

5. 5.0% Interest/Year Beginning 06/01/2016.

INFORMATION/INQUIRIES

Commissioner of Revenue..............................276-328-3556
Payments..276-328-3666

See the back of this notice for payment options and additional information.

Under the State Law ALL Payments Shall be applied to the Oldest Tax Owing

YEAR	TAX ID NUMBER	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	0039	10075670	16A0039	SCC () 039 RE

DUE DATE: May 31, 2016 LI SCC LIPPS KU REAL ESTATE

0.0000 ac.

DESCRIPTION	RATE	TOTAL VALUE	TOTAL TAX CHARGES
Land		0	
Buildings, utilities, etc		16,386,200	
TOTAL:	0.00600	16,386,200	98,317.20
Due May 31, 2016			49,158.60
Due Oct. 31, 2016			49158.60
TOTAL DUE:			98317.20

RECEIVED
MAY 18 2016
TAX DEPT.

IT IS THE OBLIGATION OF THE TAXPAYER TO SEE THAT THE PROPER TAX BILL IS RECEIVED AND PAID ON TIME.

WHEN PAYING BY MAIL SEND A STAMPED
SELF ADDRESSED ENVELOPE IF A RECEIPT IS DESIRED.

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS

KENTUCKY UTILITIES COMPANY
DBA OLD DOMINION POWER CO NORT
C/O SCOTT WILLIAMS, MGR TAX AC
PO BOX 32010
LOUISVILLE KY 40202

5. 5.0% Interest/Year Beginning 06/01/2016.

INFORMATION/INQUIRIES
Commissioner of Revenue............................276-328-3556
Payments...276-328-3666

See the back of this notice for payment options and additional information.

Under the State Law ALL Payments Shall be applied to the Oldest Tax Owing

YEAR	TAX ID NUMBER	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	0007	10075670	16A0007	SCC () 007 RE

DUE DATE: May 31, 2016 RI SCC RICHMOND KU RE AL ESTATE

0.0000 ac.

DESCRIPTION	RATE	TOTAL VALUE	TOTAL TAX CHARGES
Land		0	
Buildings, utilities, etc		10,357,960	
TOTAL:	0.00600	10,357,960	62,147.76
Due May 31, 2016			31,073.88
Due Oct. 31, 2016			31073.88
TOTAL DUE:			62147.76

RECEIVED
MAY 18 2016
TAX DEPT

IT IS THE OBLIGATION OF THE TAXPAYER TO SEE THAT THE PROPER TAX BILL IS RECEIVED AND PAID ON TIME.

WHEN PAYING BY MAIL SEND A STAMPED SELF ADDRESSED ENVELOPE IF A RECEIPT IS DESIRED.

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS

Attachment to Response to KIUC-1 Question No. 23
Page 207 of 220
Garrett

exceed the levy) shall be charged after ...

5. 5.0% Interest/Year Beginning 06/01/2016.

INFORMATION/INQUIRIES

Commissioner of Revenue............................276-328-3556
Payments..276-328-3666

See the back of this notice for payment options and additional information.

KENTUCKY UTILITIES COMPANY
DBA OLD DOMINION POWER CO NORT
C/O SCOTT WILLIAMS, MGR TAX AC
PO BOX 32010
LOUISVILLE KY 40202

Under the State Law ALL Payments Shall be applied to the Oldest Tax Owing

YEAR	TAX ID NUMBER	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	0012	10075670	16A0012	SCC () 012 RE

DUE DATE: May 31, 2016 WI SCC WISE KU REAL E STATE

0.0000 ac.

DESCRIPTION	RATE	TOTAL VALUE	TOTAL TAX CHARGES
Land		0	
Buildings, utilities, etc		3,504,195	
TOTAL:	0.00600	3,504,195	21,025.17
Due May 31, 2016			10,512.59
Due Oct. 31, 2016			10512.58
TOTAL DUE:			21025.17

RECEIVED
MAY 18 2016
TAX DEPT.

IT IS THE OBLIGATION OF THE TAXPAYER TO SEE THAT THE PROPER TAX BILL IS RECEIVED AND PAID ON TIME.

WHEN PAYING BY MAIL SEND A STAMPED
SELF ADDRESSED ENVELOPE IF A RECEIPT IS DESIRED.

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS

CITY OF NORTON TREASURER
Barbara Muir, MGT
P.O. Box 618
Norton, VA 24273
Phone: (276) 679-7246

REAL ESTATE TAX STATEMENT

TAX YEAR 2016

Ticket #	Account Number
19	4

DUE DATE October 15, 2016

Kentucky Utilities Co.
Bruce Rague/Tax Project Mgr.
P O Box 32010
Louisville, KY 40202

The Treasurer only collects taxes, does not assess property, fix valuations, set rates or grant exemptions and has no authority to make changes to the tax roll.

Inquiries on Assessments and Address Changes, contact the Commissioner of the Revenue's office at 276-679-0031.

Second half 2016 Real Estate taxes are due by October 15, 2016.
If paid after due date, add penalty of:
Assessed tax $10.00 or under - no more than tax
Assessed tax $10.00 - $100.00 - $10.00 minimum
Assessed tax over $100.00 - 10% of tax

Interest is 10% per year beginning November 1, 2016.

Code of Virginia 58.1-3913 Delinquent tax MUST be paid First.

If check is not honored by bank, receipt is void.

See the back of this notice for payment options and additional information.

Tax Rate	Land	Building and Improvements	Total Value	Annual Tax	Map Number and Description
.90	7,264,060		7,264,060		R/E Public Service

Line #	Tax Year	Ticket Number	TAX	Adjustments & Payments		TOTAL DUE
	2016	19	65,376.54		R/E Public Service	65,376.54
SECOND HALF - TOTAL DUE BY October 15, 2016						65,376.54

WISE COUNTY TREASURER
DELORES W. SMITH, CPA, MGT
PO BOX 1308
WISE VA 24293-1308

2016 Public Service Corp Taxes

IMPORTANT TAX INFORMATION

1. If Real Estate has been sold, please forward this bill to the new owner or the Treasurer's office.
2. Mortgage Company requests have been sent to them (if noted below), otherwise the taxpayer has the responsibility to forward the bill to them.
3. Envelopes must be postmarked on or before due date.
4. 10.0% Penalty or $2.00, whichever is greater (cannot exceed the levy) shall be charged after 11/30/2016.
5. 5.0% Interest/Year Beginning 12/01/2016.

KENTUCKY UTILITIES COMPANY
DBA OLD DOMINION POWER CO
C/O CHAD CLEMENTS, MGR
220 WEST MAIN ST PO BOX 32010
LOUISVILLE KY 40202

INFORMATION/INQUIRIES
Commissioner of Revenue............................276-328-3556
Payments..276-328-3666

See the back of this notice for payment options and additional information.

Under the State Law ALL Payments Shall be applied to the Oldest Tax Owing

YEAR	TAX ID NUMBER	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	0005	10075670	16A0005PSR00002	SCC () 005 RE

DUE DATE: Nov. 30, 2016 GL SCC GLADEVILLE KU REAL ESTATE

0.0000 ac.

DESCRIPTION	RATE	TOTAL VALUE	TOTAL TAX CHARGES
Land		0	
Buildings, utilities, etc		4,838,467	
TOTAL:	0.00600	4,838,467	29,030.80
Due Nov. 30, 2016			29,030.80
TOTAL DUE:			29030.80

IT IS THE OBLIGATION OF THE TAXPAYER TO SEE THAT THE PROPER TAX BILL IS RECEIVED AND PAID ON TIME.

WHEN PAYING BY MAIL SEND A STAMPED

Add:
29,030.80
109,049.74
138080.54 ✓

Wise County

Delores W. Smith, CPA, MGT, Treasurer
206 East Main Street • P.O. Box 1308
Wise, Virginia 24293
(276) 328-3666 • Fax (276) 328-4570

Statement of Taxes

KENTUCKY UTILITIES COMPANY, DBA OLD DOMINION POWER C
C/O CHAD CLEMENTS, MGR
220 WEST MAIN ST PO BOX 32010
LOUISVILLE, KY 40202

Account Number:
10075670

Payment Options:
Pay In Person: At the Treasurer's Office
Monday - Friday, 8:00 a.m. to 4:30 p.m.
Pay By Mail: Mail check or money order to the Wise County Treasurer's Office. Please include account number on remittance.
Pay Online: Make payment online at www.wisecounty.org.
Pay by Phone: Call (276) 328-3666

Tax Year	Bill Number	Description	
2016	16A00110002	SCC ST PAUL KU REAL ESTATE	5279.80
2016	16A00120002	SCC WISE KU REAL ESTATE	7593.59
2016	16A00100002	SCC COEBURN KU REAL ESTATE	4624.47
2016	16A00390002	SCC LIPPS KU REAL ESTATE	44319.08
2016	16A00070002	SCC RICHMOND KU REAL ESTATE	30388.20
2016	16A00090002	SCC BIG STONE GAP KU REAL ESTATE	11967.13
2016	16A00080002	SCC APPALACHIA KU REAL ESTATE	4877.47
TOTAL DUE	DUE 10/31/2016		109049.74

Interest is calculated monthly. Amounts shown are valid through above date.

Please cut along line and return bottom portion with

KENTUCKY UTILITIES COMPANY, DBA OLD DOMINION POWER CO
C/O CHAD CLEMENTS, MGR
220 WEST MAIN ST PO BOX 32010
LOUISVILLE, KY 40202
Account Number: 10075670

Make Check Payable and Remit to:

Wise County

P.O. Box 1308
Wise, VA 24293

T A X   T I C K E T   -   Y E A R   2 0 1 6

Ticket #: 00000030001
Date : 10/31/2016

BIG STONE GAP
JUDY HALL
505 E FIFTH ST S

BIG STONE GAP VA 24219

Dept # : PS2016
ACCT # : 5

PUBLIC UTILTIES - 2016
0000 R/E
VIN#

Previous Principal Balance $	17726.42
VALUE	0
DISCOUNT	.00
TITLE #	

KENTUCKY UTILITIES CO
~~C/O RAQUE BRUCE TAX PROJ MAGR~~
P O BOX 32010
LOUISVILLE KY
40232

Penalty $	.00
Interest $	.00
*Balance Due $	17726.42

DUE 12/5/2016

* Penalty & Interest calculated through 2016/10.

(DUPLICATE)

CITY OF NORTON TREASURER
Barbara Muir, MGT
P.O. Box 618
Norton, VA 24273
Phone: (276) 679-7246

TAX YEAR 2016

Ticket Number	Account Number
87	11923

PERSONAL PROPERTY TAX STATEMENT

DUE DATE October 15, 2016

*002114/1--S 10--B 1

ALTEC CAPITAL TRUST
33 INVERNESS CENTER PARKWAY
SUITE 200
BIRMINGTON, AL 35242

The Treasurer only collects taxes, does not assess property, fix valuations, set rates or grant exemptions and has no authority to make changes to the tax roll.

Inquiries on Assessments and Address Changes, contact the Commissioner of the Revenue's office at 276-679-0031.

Personal Property taxes are due by Oct. 15, 2016.

If paid after due date, add penalty of:
Assessed tax $10.00 or under - no more than tax
Assessed tax $10.00 - $100.00 - $10.00 minimum
Assessed tax over $100.00 - 10% of tax

Interest is 10% per year beginning November 1, 2016.

See the back of this notice for payment options and additional information.

Tax Rates per $100 PP - $2.05 MH - $.80 MT - $2.05

QUALIFIED FOR CAR TAX RELIEF = Y

Code of Virginia 58.1-3913 Delinquent tax MUST be paid First.

DESCRIPTION		ASSESSED VALUE	ASSESSED TAX	TAX RELIEF	TAX DUE	LICENSE FEE *	AMOUNT DUE
2009 INTERNATIO 7000 SERIE 1HTWBAARX9J165927 -3836	N	72275	1481.64		1481.64	25.00	1506.64
2012 INTERNATIO 7000 SERIE 1HTWGAZT4CJ588981 - 1217	N	138485	2838.94		2838.94	25.00	2863.94
2012 INTERNATIO 7000 SERIE 1HTWGAZT0CJ590324 1213	N	138485	2838.94		2838.94	25.00	2863.94
2012 INTERNATIO 7000 SERIE 1HTWGAZT4CJ588821 1224	N	129225	2649.11		2649.11	25.00	2674.11
2013 FORD DRW SUPER 1FDUF5HT1DEB14461 1413	N	91810	1882.11		1882.11	25.00	1907.11
2014 FORD DRW SUPER 1FDUF5HT2EEB67937 1513	N	102850	2108.43		2108.43	25.00	2133.43
2015 FORD DRW SUPER 1FDUF5HT5FEC84969 1648	N	112280	2301.74		2301.74	25.00	2326.74
2015 FORD DRW SUPER 1FDUF5HT4FEC39697 1647	N	111950	2294.98		2294.98	25.00	2319.98
TOTALS							18595.89

*** A VEHICLE LICENSE FEE WAS APPROVED BY CITY COUNCIL JUNE 18, 2013.**
FOR PAYMENT AMOUNT AFTER DUE DATE, PLEASE CALL 276-679-7246

PAY THIS AMOUNT ON ON OR BEFORE DUE DATE

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.

PLEASE MAIL THIS STUB WITH YOUR PAYMENT

YEAR	TICKET #	TOTAL DUE OCT. 15, 2016
2016	87	18595.89

I certify that by paying this bill, Personal Property Tax Relief is given only to personal use vehicle(s).

ALTEC CAPITAL TRUST
33 INVERNESS CENTER PARKWAY
SUITE 200
BIRMINGTON, AL 35242

CREDIT CARD PAYMENT
1-800-272-9829
www.officialpayments.com
(Jurisdiction Code 6223)

MAKE CHECK PAYABLE & REMIT TO:

CITY OF NORTON TREASURER
PO BOX 618
NORTON, VA 24273-0618

CHANGE OF ADDRESS

NAME: ____________________

ADDRESS: ____________________

____

CITY, STATE, ZIP: ____________________

CITY OF NORTON TREASURER
Barbara Muir, MGT
P.O. Box 618
Norton, VA 24273
Phone: (276) 679-7246

TAX YEAR 2016

Ticket Number	Account Number
792	12047

PERSONAL PROPERTY TAX STATEMENT

DUE DATE October 15, 2016

*000212/2--S 3--B 1

GABC LEASING, INC.
PO BOX 810
JASPER IN 47547-0810

The Treasurer only collects taxes, does not assess property, fix valuations, set rates or grant exemptions and has no authority to make changes to the tax roll.

Inquiries on Assessments and Address Changes, contact the Commissioner of the Revenue's office at 276-679-0031.

Personal Property taxes are due by Oct. 15, 2016.

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Assessed tax $10.00 or under - no more than tax
Assessed tax $10.00 - $100.00 - $10.00 minimum
Assessed tax over $100.00 - 10% of tax

See the back of this notice for payment options and additional information.

Tax Rates per $100 PP - $2.05 MH - $.80 MT - $2.05

QUALIFIED FOR CAR TAX RELIEF = Y

Interest is 10% per year beginning November 1, 2016.

Code of Virginia 58.1-3913 Delinquent tax MUST be paid First.

DESCRIPTION		ASSESSED VALUE	ASSESSED TAX	TAX RELIEF	TAX DUE	LICENSE FEE *	AMOUNT DUE
2011 FORD DRW SUPER 1FD0X4HY4BEC41543 6622-0	N	20225	414.61	out of service 2016	414.61	~~25.00~~	439.61 414
2011 FORD RANGER 1FTLR4FEXBPA31425 6606-0	N	11250	230.63	out of service 2016	230.63	~~25.00~~	255.63 23
2011 FORD LGT CONVTN 1FTMF1EF3BFB05148 6612-5	N	13975	286.49	-Sold-2015	~~286.49~~	~~25.00~~	~~311.49~~
2012 FORD DRW SUPER 1FD0X4HTXCEB07707 6677	N	26480	542.84		542.84	25.00	567.84
2013 FORD SRW SUPER 1FT7X2B6XDEA04637 6720	N	22900	469.45		469.45	25.00	494.45
2013 FORD SRW SUPER 1FT7W2B62DEB46757 6754	N	26775	548.89		548.89	25.00	573.89
2014 FORD LGT CONVTN 1FTMF1EF8EKE02492 6809	N	21200	434.60		434.60	25.00	459.60
2014 FORD LGT CONVTN 1FTFX1EFXEKF62119 6826	N	24925	510.96		510.96	25.00	535.96
2015 FORD LGT CONVTN 1FTFX1EF4FKE06014 6865	N	29750	609.88		609.88	25.00	634.88
2015 FORD LGT CONVTN 1FTFX1EFXFFB25344 6903	N	29750	609.88		609.88	25.00	634.88
2015 FORD LGT CONVTN 1FTFX1EF3FFB14038 6895	N	29750	609.88		609.88	25.00	634.88
TOTALS							Continued

*** A VEHICLE LICENSE FEE WAS APPROVED BY CITY COUNCIL JUNE 18, 2013.**
FOR PAYMENT AMOUNT AFTER DUE DATE, PLEASE CALL 276-679-7246

PAY THIS AMOUNT ON ON OR BEFORE DUE DATE

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.

PLEASE MAIL THIS STUB WITH YOUR PAYMENT

YEAR	TICKET #	TOTAL DUE OCT. 15, 2016
		Continued

I certify that by paying this bill, Personal Property Tax Relief is given only to personal use vehicle(s).

GABC LEASING, INC.
PO BOX 810
JASPER IN 47547-0810

CREDIT CARD PAYMENT
1-800-272-9829
www.officialpayments.com
(Jurisdiction Code 6223)

MAKE CHECK PAYABLE & REMIT TO:

CITY OF NORTON TREASURER
PO BOX 618
NORTON, VA 24273-0618

CHANGE OF ADDRESS

NAME: ______________________

ADDRESS: ______________________

____

CITY, STATE, ZIP: ______________________

CITY OF NORTON TREASURER
Barbara Muir, MGT
P.O. Box 618
Norton, VA 24273
Phone: (276) 679-7246

TAX YEAR 2016

Ticket Number	Account Number
792	12047

PERSONAL PROPERTY TAX STATEMENT

DUE DATE October 15, 2016

000212/2--S 3--B 1

GABC LEASING, INC.
PO BOX 810
JASPER IN 47547-0810

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Tax Rates per $100 PP - $2.05 MH - $.80 MT - $2.05

QUALIFIED FOR CAR TAX RELIEF = Y

Code of Virginia 58.1-3913 Delinquent tax MUST be paid First.

DESCRIPTION		ASSESSED VALUE	ASSESSED TAX	TAX RELIEF	TAX DUE	LICENSE FEE *	AMOUNT DUE
2015 FORD DRW SUPER 1FDOX4HTXFED29734 6883	N	35595	729.70		729.70	25.00	754.70
2015 FORD ESCAPE 1FMCU9G98FUB74115 6881	N	20300	416.15		416.15	25.00	441.15
TOTALS							~~6738.96~~ 6377.47

* A VEHICLE LICENSE FEE WAS APPROVED BY CITY COUNCIL JUNE 18, 2013.
FOR PAYMENT AMOUNT AFTER DUE DATE, PLEASE CALL 276-679-7246

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.

PAY THIS AMOUNT ON ON OR BEFORE DUE DATE

PLEASE MAIL THIS STUB WITH YOUR PAYMENT

YEAR	TICKET #	TOTAL DUE OCT. 15, 2016
2016	792	~~6738.96~~ 6377.47

I certify that by paying this bill, Personal Property Tax Relief is given only to personal use vehicle(s).

GABC LEASING, INC.
PO BOX 810
JASPER IN 47547-0810

CREDIT CARD PAYMENT
1-800-272-9829
www.officialpayments.com
(Jurisdiction Code 6223)

MAKE CHECK PAYABLE & REMIT TO:

CITY OF NORTON TREASURER
PO BOX 618
NORTON, VA 24273-0618

CHANGE OF ADDRESS

NAME: ____________________

ADDRESS: ____________________

____

CITY, STATE, ZIP: ____________________

CITY OF NORTON TREASURER
Barbara Muir, MGT
P.O. Box 618
Norton, VA 24273
Phone: (276) 679-7246

TAX YEAR 2016

Ticket Number	Account Number
826	12055

PERSONAL PROPERTY TAX STATEMENT

DUE DATE October 15, 2016

*000211/1--S 3--B 1

GERMAN AMERICAN BANCORP (GABC)
LG&E ENERGY SERVICES / OLD DOMINION
PO BOX 810
JASPER IN 47547-0810

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Inquiries on Assessments and Address Changes, contact the Commissioner of the Revenue's office at 276-679-0031.

Personal Property taxes are due by Oct. 15, 2016.

If paid after due date, add penalty of:
Assessed tax $10.00 or under - no more than tax
Assessed tax $10.00 - $100.00 - $10.00 minimum
Assessed tax over $100.00 - 10% of tax

Interest is 10% per year beginning November 1, 2016.

See the back of this notice for payment options and additional information.

Tax Rates per $100 PP - $2.05 MH - $.80 MT - $2.05

QUALIFIED FOR CAR TAX RELIEF = Y

Code of Virginia 58.1-3913 Delinquent tax MUST be paid First.

DESCRIPTION		ASSESSED VALUE	ASSESSED TAX	TAX RELIEF	TAX DUE	LICENSE FEE *	AMOUNT DUE
2011 FORD SRW SUPER 1FD7X3F60BEA95247 Commonwealth Roofing Corp 2016-390-02	N	16225	332.61		332.61	25.00	357.61
TOTALS							357.61

* A VEHICLE LICENSE FEE WAS APPROVED BY CITY COUNCIL JUNE 18, 2013.
FOR PAYMENT AMOUNT AFTER DUE DATE, PLEASE CALL 276-679-7246

PAY THIS AMOUNT ON ON OR BEFORE DUE DATE

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.

PLEASE MAIL THIS STUB WITH YOUR PAYMENT

YEAR	TICKET #	TOTAL DUE OCT. 15, 2016
2016	826	357.61

I certify that by paying this bill, Personal Property Tax Relief is given only to personal use vehicle(s).

GERMAN AMERICAN BANCORP (GABC)
LG&E ENERGY SERVICES / OLD DOMINION
PO BOX 810
JASPER IN 47547-0810

CREDIT CARD PAYMENT
1-800-272-9829
www.officialpayments.com
(Jurisdiction Code 6223)

MAKE CHECK PAYABLE & REMIT TO:

CITY OF NORTON TREASURER
PO BOX 618
NORTON, VA 24273-0618

CHANGE OF ADDRESS

NAME: __________
ADDRESS: __________

CITY, STATE, ZIP: __________

RITA MCCANN, TREASURER
LEE COUNTY, VIRGINIA
P. O. BOX 70
JONESVILLE, VA 24263-0070

2016 REAL ESTATE TAX BILL

DUE DECEMBER 5, 2016

FOR QUESTIONS CONCERNING
THE ASSESSED VALUES CALL
THE COMMISSIONER OF THE REVENUE
AT (276) 346-7722

FOR QUESTIONS CONCERNING TAX AMOUNT
OR PAYMENT INQUIRIES CALL
TREASURER'S OFFICE AT 276-346-7716

PENALTY 10% OF TOTAL TAX PLUS
INTEREST AT 10% APR IF PAID AFTER
DECEMBER 5, 2016

*000018/1--S 0--B 0

KENTUCKY UTILITIES CO
C/O TAX DEPARTMENT
PO BOX 32010 220 W MAIN ST
LOUISVILLE KY 40232-2010

YEAR	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	20	44	

DESCRIPTION / ACREAGE	TAX RATE	ASSESSED VALUE	ASSESSED TAX
R/E AC 52.900	.6187	3909455	
sessments		0	
Annual Tax Bill			24187.80

PAY THIS AMOUNT ON OR BEFORE DECEMBER 5, 2016 -->	TOTAL DUE	24187.80

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.

RITA MCCANN, TREASURER
LEE COUNTY, VIRGINIA
P. O. BOX 70
JONESVILLE, VA 24263-0070

2016 REAL ESTATE TAX BILL

DUE DECEMBER 5, 2016

FOR QUESTIONS CONCERNING THE ASSESSED VALUES CALL THE COMMISSIONER OF THE REVENUE AT (276) 346-7722

FOR QUESTIONS CONCERNING TAX AMOUNT OR PAYMENT INQUIRIES CALL TREASURER'S OFFICE AT 276-346-7716

PENALTY 10% OF TOTAL TAX PLUS INTEREST AT 10% APR IF PAID AFTER DECEMBER 5, 2016

*000022/1--S 0--B 0

KENTUCKY UTILITIES CO
C/O TAX DEPARTMENT
PO BOX 32010 220 W MAIN ST
LOUISVILLE KY 40232-2010

YEAR	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	17	42	

DESCRIPTION / ACREAGE	TAX RATE	ASSESSED VALUE	ASSESSED TAX
R/E AC 29.900	.6187	2571386	
ssessments		0	
Annual Tax Bill			15909.17

PAY THIS AMOUNT ON OR BEFORE DECEMBER 5, 2016 --> **TOTAL DUE** 15909.17

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.

RITA MCCANN, TREASURER
LEE COUNTY, VIRGINIA
P. O. BOX 70
JONESVILLE, VA 24263-0070

2016 REAL ESTATE TAX BILL

DUE DECEMBER 5, 2016

FOR QUESTIONS CONCERNING
THE ASSESSED VALUES CALL
THE COMMISSIONER OF THE REVENUE
AT (276) 346-7722

FOR QUESTIONS CONCERNING TAX AMOUNT
OR PAYMENT INQUIRIES CALL
TREASURER'S OFFICE AT 276-346-7716

PENALTY 10% OF TOTAL TAX PLUS
INTEREST AT 10% APR IF PAID AFTER
DECEMBER 5, 2016

*000023/1--S 0--B 0

KENTUCKY UTILITIES CO
C/O TAX DEPARTMENT
PO BOX 32010 220 W MAIN ST
LOUISVILLE KY 40232-2010

YEAR	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	15	40	

DESCRIPTION / ACREAGE	TAX RATE	ASSESSED VALUE	ASSESSED TAX
R/E AC 12.750	.6187	2027699	
sessments		0	
Annual Tax Bill			12545.37

PAY THIS AMOUNT ON OR BEFORE DECEMBER 5, 2016 --> **TOTAL DUE** 12545.37

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.

RITA MCCANN, TREASURER
LEE COUNTY, VIRGINIA
P. O. BOX 70
JONESVILLE, VA 24263-0070

2016 REAL ESTATE TAX BILL

DUE DECEMBER 5, 2016

FOR QUESTIONS CONCERNING
THE ASSESSED VALUES CALL
THE COMMISSIONER OF THE REVENUE
AT (276) 346-7722

FOR QUESTIONS CONCERNING TAX AMOUNT
OR PAYMENT INQUIRIES CALL
TREASURER'S OFFICE AT 276-346-7716

PENALTY 10% OF TOTAL TAX PLUS
INTEREST AT 10% APR IF PAID AFTER
DECEMBER 5, 2016

*000025/1--S 0--B 0

KENTUCKY UTILITIES CO
C/O TAX DEPARTMENT
PO BOX 32010 220 W MAIN ST
LOUISVILLE KY 40232-2010

YEAR	ACCOUNT NUMBER	TICKET NUMBER	MAP ID NUMBER
2016	14	39	

DESCRIPTION / ACREAGE	TAX RATE	ASSESSED VALUE	ASSESSED TAX
R/E AC .458	.6187	17245994	
ssessments		0	
Annual Tax Bill			106700.96

PAY THIS AMOUNT ON OR BEFORE DECEMBER 5, 2016 --> | TOTAL DUE | 106700.96

DETACH AND RETAIN THIS PORTION FOR YOUR RECORDS.