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
SECOND SET OF DATA REQUESTS OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.
DATED FEBRUARY 7, 2017

FILED: FEBRUARY 20, 2017

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 AM day of AERIGORY 2017.

Alley Shorted

(SEAL)

My Commission Expires:

JUDY SCHOOLER

Notary Public, State at Large, KY My commission expires July 11, 2018

Notary ID # 512743

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.

Subscribed and sworn to before me, a Notary Public in and before said County and State, this Moth day of Felicity ______2017.

Motor Public (SEAL)

My Commission Expires:

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

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

Subscribed and sworn to before me, a Notary Public in and before said County and State, this Atta day of Astrician ______ 2017.

Getely School (SEAL)

My Commission Expires: JUDY SCHOOLER

Notary Public, State at Large, KY
My commission expires July 11, 2018

Notary ID # 512743

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

Subscribed and sworn to before me, a Notary Public in and before said County and State, this APM day of Actiony 2017.

Jiedy Schotle (SEAL)

My Commission Expires:

JUDY SCHOOLER

Notary Public, State at Large, KY

My commission expires July 11 2018

Notary ID # 512743

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

Notary Public SEAL)

My Commission Expires:

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

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.

Subscribed and sworn to before me, a Notary Public in and before said County and State, this JOH day of - Felicity

Notary Public (SEAL)

My Commission Expires:

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

COMMONWEALTH OF KENTUCKY)	C C
COLINTY OF IFFEEDRON)	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.

William Steven Seelde

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

Eldykhorliv Publik

My Commission Expires:

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

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

Subscribed and sworn to before me, a Notary Public in and before said County and State, this Add day of February ______ 2017.

(SEAL)

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

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

Subscribed and sworn to before me, a Notary Public in and before said County and

Commonwealth, this gold day of February

__(SEAL)

Notary Public

My Commission Expires:

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

COMMONWEALTH OF KENTUCKY)	00
COUNTY OF JEFFERSON)	SS
COUNTION SEFFERSON	,	

The undersigned, **John K. Wolfe**, being duly sworn, deposes and says that he is Vice President - Electric Distribution 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.

John K. Wolfe

Subscribed and sworn to before me, a Notary Public in and before said County and State, this Add day of Action 2017.

Notary Public

_(SEAL

My Commission Expires:

JUDY SCHOOLER

Notary Public, State at Large, KY

My commission expires July 11, 2018

Notary ID # 512743

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 1

Responding Witness: John J. Spanos

- Q.2-1. Refer to the response to KIUC 1-2(a), which requested a copy of all source documents relied on for the decommissioning cost estimates. No source documents were provided. Either provide the documents or indicate that they are not available and provide the reason why they are not available.
- A.2-1. The documents supplied in response to KIUC 1-2 were the supporting documents that can be produced. In preparing the decommissioning cost estimates, Mr. Spanos relied upon proprietary studies for which he does not have necessary consents to disclose and his general knowledge of industry information on decommissioning costs. Attached is a file which shows the calculation of the decommissioning costs referenced in Mr. Spanos's depreciation study.

KENTUCKY UTILITIES

DECOMMISSIONING COSTS RELATED TO GENERATING UNITS

UNIT (1)	ESTIMATED RETIREMENT YEAR (2)		ESTIMATED DECOMMISSIONING COSTS (\$/KW) (4)	TOTAL DECOMMISSIONING COSTS (CURRENT \$) (5)=(3)*(4)	TOTAL DECOMMISSIONING COSTS (FUTURE \$) (6)	ESTIMATED TERMINAL RETIREMENTS (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	2023	166	40	6,640,000	9,616,700	
BROWN 3	2029	411	40	16,440,000	27,612,326	
TOTAL BROWN	2000	411	40	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						
пъко						
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)
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)

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 2

Responding Witness: John J. Spanos

- Q.2-2. Provide all evidence relied on to demonstrate that the net negative terminal salvage proposed by Mr. Spanos does not include remediation of the ash ponds, the costs of which are authorized for recovery through the environmental surcharge.
- A.2-2. The costs for negative terminal net salvage for the remediation of ash ponds have been segregated. The ash pond remediation costs were set out from all other terminal net salvage as shown by the 0% net salvage for Accounts 311.1 and 312.1. The asset costs are shown in Accounts 311.1 and 312.1. The terminal net salvage for all other steam assets have been calculated as shown on pages VIII-2 and VIII-3 of Exhibit JJS-KU-1.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 3

Responding Witness: John J. Spanos

- Q.2-3. Refer to the response to KIUC 1-5(a), which requested a copy of all source documents relied on for the proposed CT life spans. No source documents were provided. Either provide the documents or indicate that they are not available and provide the reason why they are not available.
- A.2-3. The proposed CT life spans utilized in the depreciation study were supplied by Generation Services Engineering which were not changed from the last study. The life spans are also supported by the life spans of others within the industry as shown by the attached schedule. See also the response to KIUC 2-5.

KENTUCKY UTILITIES/LOUISVILLE GAS & ELECTRIC

Life Spans of Representative Simple Cycle Gas Power Plants

UTILITY	UNIT	LOCATION	LIFE SPAN
Simple Cycle Plants			
Dominion Resources, Inc.	Darbytown	Virginia	36
Dominion Resources, Inc.	Remington	Virginia	36
Dominion Resources, Inc.	Ladysmith	Virginia	36
Dominion Resources, Inc.	Elizabeth River	Virginia	36
Kansas City Power and Light	West Gardner	Kansas	35
Kansas City Power and Light	Hawthorn 7	Missouri	35
Kansas City Power and Light	Hawthorn 8	Missouri	35
Kansas City Power and Light	Miami County	Kansas	35
Midamerican Energy Co.	Pleasant Hill	Iowa	40
Alliant Energy - Iowa	Lime Creek	Iowa	40
Alliant Energy - Iowa	Burlington Terra Comfort	Iowa	28
Greater Missouri Operations	South Harbor Unit 1	Missouri	35
Greater Missouri Operations	South Harbor Unit 2	Missouri	35
Greater Missouri Operations	South Harbor Unit 3	Missouri	35
Greater Missouri Operations	Crossroads Unit 1	Mississippi	35
Greater Missouri Operations	Crossroads Unit 2	Mississippi	35
Greater Missouri Operations	Crossroads Unit 3	Mississippi	35
Greater Missouri Operations	Crossroads Unit 4	Mississippi	35
Entergy Mississippi, Inc.	Attala Unit 1	Mississippi	30
Duke Energy Indiana	Cayuga CT Unit 4	Indiana	40
Duke Energy Indiana	Madison	Ohio	40
Duke Energy Indiana	Wheatland Unit 1	Indiana	35
Duke Energy Indiana	Wheatland Unit 2	Indiana	35
Duke Energy Indiana	Wheatland Unit 3	Indiana	35
Duke Energy Indiana	Wheatland Unit 4	Indiana	35
Duke Energy Carolinas	Lincoln	North Carolina	31
Duke Energy Carolinas	Mill Creek	South Carolina	30
Oklahoma Gas & Electric Co.	Horseshoe Lake 9 & 10	Oklahoma	35
Omaha Public Power District	Cass County Unit 1	Nebraska	40
Omaha Public Power District	Cass County Unit 2	Nebraska	40
Omaha Public Power District	Sarpy County Unit 3	Nebraska	40
Omaha Public Power District	Sarpy County Units 4 & 5	Nebraska	40
South Carolina Electric & Gas Co.	Hagood Unit 4	South Carolina	34
South Carolina Electric & Gas Co.	Urquhart 4	South Carolina	26
Wisconsin Power and Light Co.	Fond Du Lac #2	Wisconsin	41
Wisconsin Power and Light Co.	Fond Du Lac #3	Wisconsin	41
Wisconsin Power and Light Co.	Neenah	Wisconsin	35
Wisconsin Public Service Company	DePere	Wisconsin	35
Wisconsin Public Service Company	Pulliam Unit 31	Wisconsin	34
Wisconsin Public Service Company	West Marinette Unit 33	Wisconsin	45
Wisconsin Public Service Company	West Marinette Unit 34	Wisconsin	36
Florida Power and Light Company	Fort Myers Unit 3	Florida	30
Pacific Gas & Electric Company	Humboldt Bay CTs	California	30
Sierra Pacific Power Company	Clark Mountain 3	Nevada	30
Sierra Pacific Power Company	Clark Mountain 4	Nevada	30
Sierra Pacific Power Company	Tracy 8, 9, 10	Nevada	30
Nevada Power Company	Harry Allen 3	Nevada	30

Spanos

KENTUCKY UTILITIES/LOUISVILLE GAS & ELECTRIC

Life Spans of Representative Simple Cycle Gas Power Plants

UTILITY	UNIT	LOCATION	LIFE SPAN
Nevada Power Company	Harry Allen 4	Nevada	30
Florida Power and Light Company	Fort Myers Unit 3	Florida	30
Pacific Gas & Electric Company	Humboldt Bay CTs	California	30

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 4

Responding Witness: John J. Spanos

- Q.2-4. Refer to the response to KIUC 1-5(b). Provide a copy of all source documents relied on for the claims regarding dispatch and maintenance overhauls on the Brown 9 and 10 units compared to other CTs.
- A.2-4. The life spans for Brown 9 and 10 were established at the time the site visit was conducted in 2011 and then confirmed during the 2015 site visit. The degree of the overhaul and then the planned utilization produced the 37 and 36 year life spans.

CASE NO. 2016-00370

Response to Second Set of Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 5

Responding Witness: John J. Spanos

- Q.2-5. Refer to the response to KIUC 1-9. Identify the person who "projected the probable retirement dates" used by Mr. Spanos and provide a copy of all source documents relied for this projection. If none, then please so state.
- A.2-5. The Generation Services Engineering department supplied the probable retirement dates used by Mr. Spanos. The dates were consistent with the approved dates from the last study with the exception of Brown Units 1 and 2. The source document for the projections was produced in response to AG 1-156, Part 1 of 4, pp. 312-313. Generation Services also developed a depreciation study evaluation which was transmitted to Mr. Spanos for consideration in connection with probable retirement dates. That evaluation is attached.

Generation Services Engineering 2015 Depreciation Study Evaluation [CONFIDENTIAL]

3/4/16

Methodology

Many factors influence the end of life for a generating station. To complete this analysis the following assumptions were made regarding factors outside the direct technical evaluation:

- All necessary environmental permits and licenses will be maintained
- Units will continue to operate in a manner that is consistent with recent operating practices, with a similar number of annual starts and stops, and annual generation.
- Units will continue to be operated in accordance with good industry practices with required renewals and replacements made in a timely manner

The generating stations were reviewed at a high level and although many individual components could fail it was decided that those would not constitute an "end of life" event and could be mitigated. The boiler drum and turbine/generator were the two components/systems identified where catastrophic failure would be consideration for retirement.

Although the boiler is a complex system with many elements, the boiler drum is a large single component with approximately 240k hours of defined life and is significantly influenced by thermal cycling. Electric Power Research Institute (EPRI) studies indicate that after approximately 1,700 normal start/stop cycles the risk of a critical flaw developing are greatly increased.

The turbine/generator is a single system, whose failure could lead to significant downtime and repair/replacement costs. Several key factors are taken into consideration when evaluating the generator such as insulation type, winding age, and recent inspection findings and test results. Wear, cracking, and blade condition are key considerations for the Turbine.

Review

The depreciation review process conducted by Generation Engineering consisted of evaluating key parameters (i.e. pressures, temperatures, voltages etc..) with equipment condition (i.e. inspection data, EPRI, IEEE, etc..) to provide a risk based assessment regarding the likelihood of equipment failure as compared to industry norms.

[CONFIDENTIAL]

Boiler

EPRI states:

- A critical flaw size crack appears on average at around 30 year of service (240,000 hours).
- The average number of cycles of a coal drum unit has been 1,700 normal starts/stops to drive a critical flaw to failure.
- Natural Circulation boilers are more susceptible to ligament cracking than are Forced Circulation boilers.

The boiler review included previous inspection reports, and a review of design vs typical operating temperatures and pressures.

Generator

Generators are regularly inspected and electrically tested. Those results were reviewed along with any other known issues. In most cases where the generator winding was beyond design life, no known issues have been observed and no concerns exist regarding condition. However, assessments of Brown 1 and Brown 2 have identified discounts on their expected end of life due to generator condition.

Brown 1 has asphalt insulation and an observed shorted turn in the field winding. Electrical test results have been within normal expectations, however the armature winding is 59 years old with a design life of 30.

Brown 2 inspection and electrical test results have been as expected, however the armature windings has been in service for 52 years with an expected life of 30.

Turbine

Turbines are inspected on a routine basis with periodic repairs/overhauls to bring the unit to as designed operation. To-date no issues have been observed which did not allow a return to as designed operation.

Summary

Based on EPRI's research and the Generation Services Engineering review of units comparing their data, the boiler drum should not reduce the retirement year of each unit. While the EPRI "average end of drum life" for MC3 & MC4 are just short of the previous end of life depreciation study, the difference is not significant when considering these are typical and average numbers used from the analysis.

The end of life for Brown Unit 1 has been reduced 5 years from 2028 to 2023. The end of life for Brown Unit 2 has been reduced 5 years from 2034 to 2029.

There are no concerns regarding Turbine condition impacting unit end of life.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 6

Responding Witness: Valerie L. Scott / John J. Spanos

Q.2-6. Refer to the response to KIUC 1-11.

- a. The question asked for the amortization or depreciation period and the basis for the period that is proposed. The response did not address these questions. Provide this information.
- b. Describe how the depreciation rate will be determined and to what plant balance it will be applied Service and account 108 Accumulated Reserve for Depreciation.

A.2-6.

- a. The costs will be recovered through the remaining life of the existing plants still in service. This is consistent with group depreciation and the remaining life method.
- b. The depreciation rate for all assets are based on the life and salvage parameters as well as the plant to reserve ratio.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 7

Responding Witness: Lonnie E. Bellar / Christopher M. Garrett / John J. Spanos

- Q.2-7. Refer to the response to KIUC 1-12. The Company did not provide the information requested and no other party can obtain the information that was requested from the schedules or workpapers provided in the filing or in response to discovery.
 - a. Provide the demolition costs included in capitalization and rate base (gross demolition costs incurred (debit to accumulated depreciation), accumulated demolition costs recovered (credit to accumulated depreciation), and ADIT by month for the 13 months used in the test year to calculate capitalization.
 - b. Provide the amortization or depreciation expense due to the demolition costs included in the revenue requirement.
 - c. Provide the operating expenses by FERC account resulting from the demolition, if any, including property tax expense resulting from the increase in net plant due to debiting accumulated depreciation for the demolition costs.
 - d. Provide the savings in operating expenses by FERC account resulting from the demolition, if any. If there are no savings reflected in the Company's operating expenses, then explain why there will be no savings, especially given that such savings were included in the rationale for the demolitions.

A.2-7.

- a. See attached.
- b. For the retired plants, there is no amortization or depreciation expense calculated for demolition costs for the revenue requirements. All retired plants are presented as fully depreciated. Based on group depreciation and the remaining life method, future terminal net salvage will be recovered over the life of other existing facilities.
- c. See attachment provided in subpart (a) for the associated property taxes. There are no O&M expenses associated with the demolition projects.

d. There are no savings included in the forecasted test year because the demolitions are not expected to be complete until 2019.

														13-month	13-month
Accumulated Demolition														<u>Average</u>	<u>Average</u>
Expenditures (108 Debits)	6/30/2017	7/31/2017	8/31/2017	9/30/2017	10/31/2017	11/30/2017	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/31/2018	6/30/2018	6/30/2018	6/30/2016
Green River	590,000	1,230,609	1,871,217	2,511,826	3,152,434	3,793,043	4,433,651	5,160,076	5,886,500	6,612,924	7,339,349	8,065,773	8,792,197	4,572,277	-
Pineville	16,239	16,239	16,239	16,239	16,239	16,239	16,239	16,239	132,906	249,572	366,239	366,239	366,239	123,931	-
Tyrone	17,751	17,751	17,751	17,751	17,751	17,751	17,751	17,751	134,417	251,084	367,751	367,751	367,751	125,443	-
Total	623,990	1,264,598	1,905,207	2,545,815	3,186,424	3,827,032	4,467,641	5,194,065	6,153,823	7,113,581	8,073,338	8,799,763	9,526,187	4,821,651	-
Terminal Net Salvage Reserve														13-month	12
(108 Credits)	6/30/2017	7/31/2017	8/31/2017	9/30/2017	10/31/2017	11/30/2017	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/31/2018	6/30/2018	Average	13-month Average
Green River	3,648,581	3.648.581	3,648,581	3.648.581	3,648,581	3,648,581	3.648.581	3.648.581	3.648.581	3,648,581	3,648,581	3.648.581	3.648.581	3,648,581	Average
Pineville	18,245	18.245	18.245	18,245	18,245	18,245	18,245	18,245	18,245	18,245	18,245	18.245	18.245	18,245	-
	1.089.335	1.089.335	1.089.335	1.089.335	1.089.335	1.089.335	1.089.335	1.089.335	1.089.335		1.089,335	1.089.335	1.089.335	,	-
Tyrone	, ,	, ,	, ,	,,	, ,	,,	,,	, ,	, ,	1,089,335	, ,	,,	, ,	1,089,335	
Total	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	4,756,161	-
														13-month	13-month
Accumulated Deferred Income														<u>13-month</u> Average	13-month Average
Accumulated Deferred Income Taxes (282)	6/30/2017	7/31/2017	8/31/2017	9/30/2017	10/31/2017	11/30/2017	12/31/2017	1/31/2018	2/28/2018	3/31/2018	4/30/2018	5/31/2018	6/30/2018		
	6/30/2017 (1,189,788)	7/31/2017 (940,591)	8/31/2017 (691,395)	9/30/2017 (442,198)	10/31/2017 (193,001)	11/30/2017 56,196	12/31/2017 305,392	1/31/2018 587,971	2/28/2018 870,550	3/31/2018 1,153,130	4/30/2018 1,435,709	5/31/2018 1,718,288	6/30/2018 2,000,867	Average	Average
Taxes (282)														<u>Average</u> 6/30/2018	Average
Taxes (282) Green River Pineville	(1,189,788)	(940,591)	(691,395)	(442,198)	(193,001)	56,196	305,392	587,971	870,550	1,153,130	1,435,709	1,718,288	2,000,867	<u>Average</u> 6/30/2018 359,318	Average
Taxes (282) Green River	(1,189,788) (780)	(940,591) (780)	(691,395) (780)	(442,198) (780)	(193,001) (780)	56,196 (780)	305,392 (780)	587,971 (780)	870,550 44,603	1,153,130 89,986	1,435,709 135,370	1,718,288 135,370	2,000,867 135,370	Average 6/30/2018 359,318 41,112	<u>Average</u> 6/30/2016 - -
Taxes (282) Green River Pineville Tyrone	(1,189,788) (780) (416,846)	(940,591) (780) (416,846)	(691,395) (780) (416,846)	(442,198) (780) (416,846)	(193,001) (780) (416,846)	56,196 (780) (416,846)	305,392 (780) (416,846)	587,971 (780) (416,846)	870,550 44,603 (371,463)	1,153,130 89,986 (326,080)	1,435,709 135,370 (280,696)	1,718,288 135,370 (280,696)	2,000,867 135,370 (280,696)	Average 6/30/2018 359,318 41,112 (374,954)	Average 6/30/2016 - - -
Taxes (282) Green River Pineville Tyrone	(1,189,788) (780) (416,846)	(940,591) (780) (416,846)	(691,395) (780) (416,846)	(442,198) (780) (416,846)	(193,001) (780) (416,846)	56,196 (780) (416,846)	305,392 (780) (416,846)	587,971 (780) (416,846)	870,550 44,603 (371,463)	1,153,130 89,986 (326,080)	1,435,709 135,370 (280,696)	1,718,288 135,370 (280,696)	2,000,867 135,370 (280,696)	Average 6/30/2018 359,318 41,112 (374,954)	Average 6/30/2016 - - -
Taxes (282) Green River Pineville Tyrone	(1,189,788) (780) (416,846)	(940,591) (780) (416,846)	(691,395) (780) (416,846)	(442,198) (780) (416,846)	(193,001) (780) (416,846)	56,196 (780) (416,846)	305,392 (780) (416,846)	587,971 (780) (416,846)	870,550 44,603 (371,463)	1,153,130 89,986 (326,080)	1,435,709 135,370 (280,696)	1,718,288 135,370 (280,696)	2,000,867 135,370 (280,696)	Average 6/30/2018 359,318 41,112 (374,954)	Average 6/30/2016 - - -
Taxes (282) Green River Pineville Tyrone	(1,189,788) (780) (416,846)	(940,591) (780) (416,846)	(691,395) (780) (416,846)	(442,198) (780) (416,846)	(193,001) (780) (416,846)	56,196 (780) (416,846)	305,392 (780) (416,846)	587,971 (780) (416,846)	870,550 44,603 (371,463)	1,153,130 89,986 (326,080)	1,435,709 135,370 (280,696)	1,718,288 135,370 (280,696)	2,000,867 135,370 (280,696)	Average 6/30/2018 359,318 41,112 (374,954) 25,476	Average 6/30/2016 - - - -
Taxes (282) Green River Pineville Tyrone Total	(1,189,788) (780) (416,846)	(940,591) (780) (416,846)	(691,395) (780) (416,846)	(442,198) (780) (416,846)	(193,001) (780) (416,846)	56,196 (780) (416,846)	305,392 (780) (416,846)	587,971 (780) (416,846)	870,550 44,603 (371,463)	1,153,130 89,986 (326,080)	1,435,709 135,370 (280,696)	1,718,288 135,370 (280,696)	2,000,867 135,370 (280,696)	Average 6/30/2018 359,318 41,112 (374,954) 25,476	Average 6/30/2016 - - - - - 13-month
Taxes (282) Green River Pineville Tyrone Total	(1,189,788) (780) (416,846) (1,607,415)	(940,591) (780) (416,846) (1,358,218)	(691,395) (780) (416,846) (1,109,021)	(442,198) (780) (416,846) (859,825)	(193,001) (780) (416,846) (610,628)	56,196 (780) (416,846) (361,431)	305,392 (780) (416,846) (112,234)	587,971 (780) (416,846) 170,345	870,550 44,603 (371,463) 543,690	1,153,130 89,986 (326,080) 917,036	1,435,709 135,370 (280,696) 1,290,382	1,718,288 135,370 (280,696) 1,572,961	2,000,867 135,370 (280,696) 1,855,540	Average 6/30/2018 359,318 41,112 (374,954) 25,476	Average 6/30/2016 - - - - - 13-month Average
Taxes (282) Green River Pineville Tyrone Total Total Rate Base / Capitalization	(1,189,788) (780) (416,846) (1,607,415) 6/30/2017 (1,868,793)	(940,591) (780) (416,846) (1,358,218) 7/31/2017 (1,477,381)	(691,395) (780) (416,846) (1,109,021) (1,09,021) 8/31/2017 (1,085,969)	(442,198) (780) (416,846) (859,825) 9/30/2017 (694,558)	(193,001) (780) (416,846) (610,628) (610,628) (631/2017 (303,146)	56,196 (780) (416,846) (361,431) 11/30/2017 88,266	305,392 (780) (416,846) (112,234) 12/31/2017 479,678	587,971 (780) (416,846) 170,345 1/31/2018 923,523	870,550 44,603 (371,463) 543,690 2/28/2018 1,367,368	1,153,130 89,986 (326,080) 917,036 3/31/2018 1,811,214	1,435,709 135,370 (280,696) 1,290,382 4/30/2018 2,255,059	1,718,288 135,370 (280,696) 1,572,961 5/31/2018 2,698,904	2,000,867 135,370 (280,696) 1,855,540 6/30/2018 3,142,750	Average 6/30/2018 359,318 41,112 (374,954) 25,476 13-month Average 6/30/2018 564,378	Average 6/30/2016 - - - - - 13-month Average
Taxes (282) Green River Pineville Tyrone Total Total Rate Base / Capitalization Green River Pineville	(1,189,788) (780) (416,846) (1,607,415)	(940,591) (780) (416,846) (1,358,218)	(691,395) (780) (416,846) (1,109,021) <u>8/31/2017</u> (1,085,969) (1,226)	(442,198) (780) (416,846) (859,825) (694,558) (1,226)	(193,001) (780) (416,846) (610,628) (610,628) (10/31/2017 (303,146) (1,226)	56,196 (780) (416,846) (361,431) 11/30/2017 88,266 (1,226)	305,392 (780) (416,846) (112,234) 12/31/2017 479,678 (1,226)	587,971 (780) (416,846) 170,345 1/31/2018 923,523 (1,226)	870,550 44,603 (371,463) 543,690 2/28/2018 1,367,368 70,058	3/31/2018 1,81,311 89,986 (326,080) 917,036 3/31/2018 1,811,214 141,341	1,435,709 135,370 (280,696) 1,290,382 4/30/2018 2,255,059 212,624	1,718,288 135,370 (280,696) 1,572,961 5/31/2018 2,698,904 212,624	2,000,867 135,370 (280,696) 1,855,540 6/30/2018 3,142,750 212,624	Average 6/30/2018 359,318 41,112 (374,954) 25,476 13-month Average 6/30/2018 564,378 64,574	Average 6/30/2016 - - - - - 13-month Average
Taxes (282) Green River Pineville Tyrone Total Total Rate Base / Capitalization Green River	(1,189,788) (780) (416,846) (1,607,415) 6/30/2017 (1,868,793) (1,226)	(940,591) (780) (416,846) (1,358,218) 7/31/2017 (1,477,381) (1,226)	(691,395) (780) (416,846) (1,109,021) (1,09,021) 8/31/2017 (1,085,969)	(442,198) (780) (416,846) (859,825) 9/30/2017 (694,558)	(193,001) (780) (416,846) (610,628) (610,628) (631/2017 (303,146)	56,196 (780) (416,846) (361,431) 11/30/2017 88,266	305,392 (780) (416,846) (112,234) 12/31/2017 479,678	587,971 (780) (416,846) 170,345 1/31/2018 923,523	870,550 44,603 (371,463) 543,690 2/28/2018 1,367,368	1,153,130 89,986 (326,080) 917,036 3/31/2018 1,811,214	1,435,709 135,370 (280,696) 1,290,382 4/30/2018 2,255,059	1,718,288 135,370 (280,696) 1,572,961 5/31/2018 2,698,904	2,000,867 135,370 (280,696) 1,855,540 6/30/2018 3,142,750	Average 6/30/2018 359,318 41,112 (374,954) 25,476 13-month Average 6/30/2018 564,378	Average 6/30/2016 - - - - - - - - - - - - - - - - - - -

					Di	fference /
TYE	6/30/2018	TYE	6/30/20	16	Ra	te Increase
\$	40,014	\$	-		\$	40,014
	10.76%					10.76%
\$	4,304				\$	4,304
\$	98	\$	-		\$	98
\$	4,402				\$	4,402
	89.28%					89.28%
\$	3,930				\$	3,930

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 8

Responding Witness: Valerie L. Scott / Daniel K. Arbough

- Q.2-8. Refer to the response to KIUC 1-27.
 - a. Provide the attachment to KIUC 2-17 in an Excel spreadsheet in live format and with formulas intact.
 - b. Provide revised schedules for the base year and test year in the same format used for calendar years 2012 through 2016, separately showing the annual activity (deferrals) and the amortization expense.
 - c. Provide the calculation of the activity and amortization expense for all regulatory assets by month in 2016, 2017, and 2018. Provide all electronic spreadsheets in live format with all formulas intact and a copy of all source documents relied on for the data or assumptions reflected in the calculations.
 - d. Provide the calculation of the annual activity and amortization expense for all regulatory assets in the base year and test year that are reflected in the Company's filing. Provide all electronic spreadsheets in live format with all formulas intact and a copy of all source documents relied on for the data or assumptions reflected in the calculations.
 - e. Provide a description of the forward starting swap losses regulatory asset and the basis for the amortization period.
 - f. Provide a citation to the Orders in the proceedings cited for Commission approval of recovery and the amortization period for the forward starting swap losses.

A.2-8.

- a. See attachment being provided in Excel format.
- b. See the response to part d.
- c. See attachment being provided in Excel format.

- d. See attachment being provided in Excel format
- e. By Order in Case No. 2014-00082 on June 16, 2014, KU was authorized by the KPSC to issue First Mortgage Bonds in aggregate principal amount of up to \$500 million and enter into hedging agreements (forward starting swaps) to lock in interest rates for debt to be issued in 2015. KU entered into hedging agreements totaling \$250 million for the 10 year bond and \$250 million for the 30 year bond. Debt was issued in September 2015, totaling \$250 million in 10 year First Mortgage Bonds and \$250 million in 30 year First Mortgage Bonds. The forward starting swaps were settled at a loss of \$14,076,899 related to the \$250 million, 10 year First Mortgage Bonds and \$29,611,403 related to the \$250 million, 30 year First Mortgage Bonds. The Report of Action, dated 10/16/2015 filed with the KPSC, indicated that the losses on the forward starting swaps settlement would be amortized over the life of the associated bonds (10 and 30 years). These regulatory assets were also described in the 2014 rate case (Case No. 2014-00371).

The losses on the settlement of the forward starting swaps are treated consistent with the regulatory liability which represents the gains on the settlement of forward starting swaps settled in 2013. By Order in Case No. 2012-00232, KU was authorized by the KPSC to enter into hedging agreements to lock in interest rates for debt that was issued in November 2013. In October 2012, KU entered into \$150 million of forward-starting swaps and in April 2013, KU added an additional \$100 million of forward-starting swaps. The initial swaps expired in September and KU received a payment of \$49,325,370.50, and KU entered into additional \$250 million of forward-starting swaps, effectively extending the start date of the prior hedges from September 2013 to December 2013. New debt totaling \$250 million was issued in November 2013 and the hedges issued in September were terminated at the same time at a cost of \$6,297,402.74. The Report of Action, dated 12/13/2013 filed with the KPSC, indicated that the net gain on the forward starting swaps settlements totaling \$43,027,967.76 would be amortized over the 30 year life of the associated bonds. As such, the gains on the settlement of these forward starting swaps were recognized as regulatory liabilities in FERC account 254 and are being amortized over the life of the associated bonds. These regulatory liabilities were also described in the 2012 rate case (Case No. 2012-00221) and 2014 rate case (Case No. 2014-00371). Amortization of the gains is booked as a reduction to interest expense and was included in the test period in Case No. 2014-00371 and is included in the test period in this case.

f. See the response to part e.

The attachments are being provided in separate files in Excel format.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 9

Responding Witness: Counsel/Daniel K. Arbough

- Q.2-9. Refer to the Attachment 2 to the response to KIUC 1-28.
 - a. Provide a complete copy of this attachment with no redactions.
 - b. Identify the person(s), employer(s), and position(s) who reducted sections of Attachment 2.
 - c. For each redaction, describe the content of the redaction, provide all reasons why the content was redacted, and explain why the Company believes that the content should be redacted in this proceeding.

A.2-9.

- a. c. Objection. The requested information is irrelevant to the subject matter of this proceeding, namely setting base rates for KU beginning July 1, 2017. The redacted data is non-responsive information regarding an entity that is not a party to the case, and does not charge any party to the case via intercompany transactions. Without waiver of this objection, see the supplemental response to b).
 - b. The redactions were approved by Daniel K. Arbough, the Company's Treasurer.

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Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 10

Responding Witness: Daniel K. Arbough

- Q.2-10. Provide a schedule showing the pension cost actuarial projections used for the budget and the actual pension cost recorded in total (expense plus capitalized) for each year 2012 through 2016.
- A.2-10. See attached.

Kentucky Utilities' Actual Pension Costs												
2012 2013~ 2014^ 2015* 2016												
Service cost	12,845,865	15,129,466	12,624,785	16,058,845	13,771,567							
Interest cost	26,887,761	26,654,118	28,408,108	30,235,526	30,633,460							
Expected return on assets	(29,638,637)	(36,335,226)	(37,325,809)	(40,348,888)	(41,077,592)							
Amortizations:												
Transition	-	-	-	-	-							
Prior service cost	2,004,679	2,027,067	2,033,844	3,174,138	2,691,292							
(Gain)/loss	9,392,089	17,009,644	4,880,088	14,379,748	7,337,125							
ASC 715 NPBC	21,491,757	24,485,069	10,621,016	23,499,369	13,355,852							

Kentucky Utilities' Projected Pension Costs											
	2012	2013~	2014^	2015*	2016						
Service cost	14,286,889	12,428,311	14,241,050	15,514,136	14,971,023						
Interest cost	29,509,404	28,588,074	29,977,739	30,907,198	30,563,826						
Expected return on assets	(29,628,846)	(32,414,906)	(35,718,137)	(37,463,366)	(39,423,665)						
Amortizations:											
Transition	-	-	-	-	-						
Prior service cost	2,040,804	2,018,124	2,041,803	2,004,142	103,708						
(Gain)/loss	10,348,984	5,425,197	9,412,004	16,080,960	8,264,870						
ASC 715 NPBC	26,557,235	16,044,800	19,954,459	27,043,070	14,479,762						

^{~ -}Variance due predominantly due to a reduction in discount rate.

^{^ -}Variance predominantly due to change in mortality table assumptions, combined with higher discount rates and asset returns.

^{* -}Projections were prepared before the settlement of Case No. 2014-00371, which reduced actual amortization by \$5.0M. Also the projections assumed that all contributions would be made at year-end. However, contributions were made in January which significantly reduced costs. These costs reductions were partially offset by a change in plan design.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 11

Responding Witness: Daniel K. Arbough

- Q.2-11. Confirm that the 2017 pension cost actuarial projections that will be reflected in the 2017 actuarial report expected in the second quarter of 2017 likely will be less than those reflected in the 2016 projections for 2017 due to the fact that the actual earned returns in 2016 were greater than reflected in the ROA assumption.
- A.2-11. KU's actual return on assets in 2016 of 5.66% was not greater than the estimated return on assets of 7% which was reflected in the 2016 projections for 2017. Therefore, KU cannot confirm the statement in Question No. 2-11.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 12

Responding Witness: Lonnie E. Bellar

- Q.2-12. Refer to the response to KIUC 1-30. Provide a schedule showing transmission vegetation management costs by FERC account for each year 2007 through 2016, the base year, and the test year. On that same schedule, provide the transmission line miles by voltage.
- A.2-12. Transmission vegetation management costs are recorded in FERC 571.

2007	\$2,851,413
2008	\$2,899,128
2009	\$3,887,218
2010	\$4,066,864
2011	\$4,108,149
2012	\$4,148,767
2013	\$4,511,675
2014	\$5,310,433
2015	\$5,329,253
2016	\$5,286,815
Base Yr.	\$5,629,253
Test Yr.	\$9,992,809

See Mr. Thompson's testimony, Exhibit PWT-2 (page 6, Table 1) for a breakdown of transmission line miles by voltage. The Company did not track line miles worked by voltage for the years requested.

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Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 13

Responding Witness: John P. Malloy

- Q.2-13. Refer to the table and column heading "life of project" on page 6 of the Attachment to the response to KIUC 1-31. Provide the "Project Net Income" and "Project ROE" for each year over the projected life of the project.
- A.2-13. See attached.

Financial Analysis - Project Summary (\$000)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Life of Project
Project Net Income	(\$997)	(\$1,142)	(\$313)	\$984	\$515	\$371	\$544	\$905	\$627	\$729	\$1,400	\$1,539	\$5,162
Project ROE	-21.1%	-10.0%	-2.5%	9.5%	5.7%	3.7%	5.5%	11.5%	7.8%	9.1%	23.8%	37.1%	5.1%

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Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 14

Responding Witness: John P. Malloy

- Q.2-14. Refer to the Attachment to the response to KIUC 1-31 and Attachment 1 to the response to KIUC 1-32.
 - a. Explain why Attachment 1 to the response KIUC 1-32 shows no reduction in O&M expense for the avoided Client Specific Maintenance cited in the Attachment to the response to KIUC 1-31 as one reason to migrate to a later version of the SAP software.
 - b. Provide the savings from the avoided Client Specific Maintenance and demonstrate that these savings are reflected in the test year expenses.
- A.2-14. a. The attachment to KIUC 1-31 does not cite avoided Client Specific Maintenance cost as a reason to migrate to a later version of the SAP software. Indeed, the Companies are continuing with their existing support agreement, which is why Attachment 1 to KIUC 1-32, which shows incremental O&M. not total O&M, does not contain an entry for Client Specific Maintenance. For clarification, "Client Specific Maintenance" is a support level, not a separate product, agreement, or contract; rather, under the Companies' existing and continuing support agreement with SAP, there are different levels of support provided, and which level the Companies receive—for the same contract price—depends on the product being supported and age. For CRM 5.2, the Companies are receiving a support level called "Client Specific Maintenance" because, as noted in the attachment to KIUC 1-31, "LKS is the only SAP customer in North America still utilizing CRM 5.2." Upon upgrading to CRM 7.4 as part of the SAP Upgrade Project, the Companies will receive a higher level of support ("Enterprise Level Support") for the same price they are paying today under their annual support agreement with SAP. Therefore, because the Companies are not avoiding any annual support costs as part of the SAP Upgrade Project, there is no entry in Attachment 1 to KIUC 1-32 reflecting an O&M reduction related to annual support costs. Note: The Investment Plan noted CRM was going to be upgraded to 7.2. Since the start of the project, it has been determined a newer version of CRM, 7.4, will be implemented.

b. See the response to part a.

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Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 15

Responding Witness: Lonnie E. Bellar

- Q.2-15. Refer to the Attachment to the response to KIUC 1-34.
 - a. Provide the Excel spreadsheet in live format and with all formulas intact.
 - b. Provide annual totals.

A.2-15.

a.-b. See attachment being provided in Excel format.

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

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 16

Responding Witness: Christopher M. Garrett

- Q.2-16. Provide the Company's projected federal and state NOL ADIT amounts on a total Company and jurisdictional basis at December 31, 2014, December 31, 2015, December 31, 2016, and at the end of each month in the base year and the test year. Provide the calculations of taxable income/(losses) each year/month and the carryforward each year/month.
- A.2-16. See the response to AG 1-142 for federal NOL amounts at December 31, 2014, December 31, 2015, and December 31, 2016. There was no state NOL at December 31, 2014, December 31, 2015, and December 31, 2016.

Attached are the monthly taxable income/(losses) schedules for the base year and test year, including carryforward additions/(utilizations).

Kentucky Utilities Company Taxable Income Response to Q-16 (\$ thousands)

Base Year Ending 2/28/17													
	MAR-2016	APR-2016	MAY-2016	JUN-2016	JUL-2016	AUG-2016	SEP-2016	OCT-2016	NOV-2016	DEC-2016	JAN-2017	FEB-2017	BASE YEAR
Federal Taxable Income:													
Book Income	23,771	19,362	27,716	41,357	45,060	47,122	30,758	22,488	28,879	41,448	52,473	43,085	423,520
Permanent Differences	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(24)	(282)
Other Timing Differences	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(1,627)	(19,525)
Property Related Timing Differences	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(29,484)	(353,813)
State Current Tax	(447)	(447)	(447)	(447)	(447)	(447)	(447)	(447)	(447)	(447)	(447)	(447)	(5,367)
Federal Taxable Income/(Loss) Before NOL	(7,811)	(12,220)	(3,866)	9,775	13,478	15,540	(824)	(9,094)	(2,703)	9,866	20,891	11,503	44,533
NOL Addition/(Utilization)	7,811	12,220	3,866	(9,775)	(13,478)	(15,540)	824	9,094	2,703	(9,866)	(20,891)	(11,503)	(44,533)
Federal Taxable Income After NOL	-	-	-	-	-	-	-	-	-	-	-	-	-
State Taxable Income:													
Federal Taxable Income Before NOL	(7,811)	(12,220)	(3,866)	9,775	13,478	15,540	(824)	(9,094)	(2,703)	9,866	20,891	11,503	44,533
Addback State Current Tax	447	447	447	447	447	447	447	447	447	447	447	447	5,367
Addback Federal Tax Depreciation	25,399	25,399	25,399	25,399	25,399	25,399	25,399	25,399	25,399	25,399	25,399	25,399	304,793
Addback Bonus Depreciation	18,443	18,443	18,443	18,443	18,443	18,443	18,443	18,443	18,443	18,443	18,443	18,443	221,312
Deduct State Tax Depreciation	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(37,672)	(452,062)
Deduct State IRC Sec 199 Deduction	(437)	(437)	(437)	(437)	(437)	(437)	(437)	(437)	(437)	(437)	(437)	(437)	(5,247)

19,658

21,720

5,356

(2,914)

3,477

16,046

15,955

2,314

Test Year Ending 6/30/18													
	JUL-2017	AUG-2017	SEP-2017	OCT-2017	NOV-2017	DEC-2017	JAN-2018	FEB-2018	MAR-2018	APR-2018	MAY-2018	JUN-2018	TEST YEAR
Federal Taxable Income:													
Book Income	36,618	37,585	25,147	12,674	26,438	39,355	46,527	37,680	22,450	10,450	17,587	27,393	339,904
Permanent Differences	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(223)
Other Timing Differences	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(2,511)	(30,134)
Property Related Timing Differences	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(21,368)	(256,420)
State Current Tax	(412)	(412)	(412)	(412)	(412)	(412)	(412)	(412)	(412)	(412)	(412)	(412)	(4,944)
Federal Taxable Income/(Loss) Before NOL	12,308	13,275	837	(11,636)	2,128	15,045	22,217	13,370	(1,860)	(13,860)	(6,723)	3,083	48,183
NOL Addition/(Utilization)	(12,308)	(13,275)	(837)	11,636	(2,128)	(15,045)	(22,217)	(13,370)	1,860	13,860	6,723	(3,083)	(48,183)
Federal Taxable Income After NOL	-	-	-	-	-	-	-	-	-	-	-	-	-
Federal NOL Carryforward	122,307	109,032	108,195	119,831	117,703	102,658	80,441	67,071	68,931	82,791	89,514	86,431	
State Taxable Income:													
Federal Taxable Income Before NOL	12,308	13,275	836	(11,636)	2,128	15,045	22,217	13,370	(1,860)	(13,860)	(6,723)	3,083	48,183
Addback State Current Tax	412	412	412	412	412	412	412	412	412	412	412	412	4,944
Addback Federal Tax Depreciation	25,030	25,030	25,030	25,030	25,030	25,030	25,030	25,030	25,030	25,030	25,030	25,030	300,354
Addback Bonus Depreciation	18,047	18,047	18,047	18,047	18,047	18,047	18,047	18,047	18,047	18,047	18,047	18,047	216,560
Deduct State Tax Depreciation	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(37,931)	(455,174)
Deduct State IRC Sec 199 Deduction	(456)	(456)	(456)	(456)	(456)	(456)	(456)	(456)	(456)	(456)	(456)	(456)	(5,466)
State Taxable Income/(Loss)	17,410	18,377	5,938	(6,534)	7,230	20,147	27,319	18,472	3,242	(8,758)	(1,621)	8,185	109,401

Note: The taxable income amounts in the test year are absent proposed increases to rates in this rate case filing.

(6,040)

(1,631)

State Taxable Income/(Loss)

27,071

17,683

118,696

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 17

Responding Witness: Christopher M. Garrett

- Q.2-17. Provide a copy of all intercompany tax agreements to which the Company, LKS, and/or LKE is a party.
- A.2-17. See attached.

PPL AND CONSENTING MEMBERS OF ITS CONSOLIDATED GROUP AGREEMENT FOR FILING CONSOLIDATED INCOME TAX RETURNS AND FOR ALLOCATION OF CONSOLIDATED INCOME TAX LIABILITIES AND BENEFITS

PPL (Parent) hereby agrees for itself and on behalf of its Members as of November 1, 2010 to join annually in the filing of a consolidated federal income tax return and to allocate the consolidated federal income tax liabilities and benefits among the Members of the consolidated group in accordance with the provisions of this Agreement.

WITNESSETH

WHEREAS, the parties hereto are Members of an affiliated group ("Affiliated Group") as defined in Section 1504(a) of the Internal Revenue Code of 1986, as amended ("Code"), of which the Parent is the common parent; and

WHEREAS, such Affiliated Group intends to file a U.S. consolidated income tax return for its tax period 2010 and for subsequent years; and

WHEREAS, PPL has historically determined its income tax allocation utilizing the principles of the "stand alone" or "separate company" method; and

WHEREAS, Kentucky Utilities Company ("KU") and Louisville Gas & Electric Company ("LG&B") were ordered in the Commonwealth of Kentucky Public Service Commission Case Nos. 2009-00548 and 2009-00549 to allocate income tax liabilities using the "stand alone" rate making principal; and

WHEREAS, Louisville Gas & Electric Company ("LG&E") was ordered in the Commonwealth of Kentucky Public Service Commission Case No. 89-374 to allocate income tax liabilities using the "stand alone" method; and

WHEREAS, Kentucky Utilities Company ("KU") was ordered in the Commonwealth of Kentucky Public Service Commission Case No. 10296 to allocate income tax liabilities using the "stand alone" method; and

WHEREAS, the Commonwealth of Kentucky Public Service Commission ordered LG&E and KU in case No. 97-300 to follow Corporate Policies and Guidelines for Intercompany Transactions which state: "The 'stand alone' method will be used to allocate the income tax liabilities of each entity."

WHEREAS, KU is subject to regulation by the Commonwealth of Virginia State Corporation Commission; and

WHEREAS, in 2008, Section 56.235(2)(A)the Code of Virginia was amended to state that "for ratemaking purposes, the Commission shall determine the federal and state income tax costs for investor-owned water, gas, or electric utility that is part of a publicly-traded,

consolidated group as follows: (i) such utility's apportioned state income tax costs shall be calculated according to the applicable statutory rate, as if the utility had not filed a consolidated return with its affiliates, and (ii) such utility's federal income tax costs shall be calculated according to the applicable federal income tax rate and shall exclude any consolidated tax liability or benefit adjustments originating from any taxable income or loss of its affiliates."

WHEREAS, it is the intent and desire of the parties hereto that a method be established for allocating the consolidated tax liability of the Affiliated Group among its Members, for reimbursing Parent for payment of such tax liability, for compensating any party for use of its losses or tax credits, and to provide for the allocation and payment of any refund or credit arising from a carryback, or carryforward of losses or tax credits from other tax years.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, the parties hereto agree as follows:

1. DEFINITIONS

"Associate company" is a consenting Member of the PPL consolidated group which agrees to be subject to this Agreement.

"Consolidated tax" is the aggregate current federal income tax liability for a tax year, being the tax shown on the consolidated federal income tax return of the Affiliated Group and any adjustments thereto, as described in Section 4 hereof. The Consolidated tax shall also mean the amount of the refund if the consolidated tax return shows a negative tax liability.

"Corporate tax credit" shall mean the negative Separate return tax of an Associate company for a taxable year, equal to the amount by which the Consolidated tax is reduced by including a loss, credit, carryover or other tax benefit of such Associate company in the consolidated return.

"Corporate taxable income" is the positive taxable income of an associate company for a tax year, computed as though such company had filed a separate return on the same basis as used in the consolidated return, except that dividend income or distributions from associate companies shall be disregarded, and other intercompany transactions, eliminated in consolidation, shall be given appropriate effect. Carryovers and carrybacks shall be taken into account unless the Member has been paid a Corporate Tax Credit therefore under paragraph 4 of this Agreement.

"Corporate taxable loss" is the taxable loss of an associate company for a tax year, computed as though such company had filed a separate return on the same basis as used in the consolidated return, except that dividend income from associate companies shall be disregarded, and other intercompany transactions, eliminated in consolidation, shall be given appropriate effect. Carryovers and carrybacks shall be taken into account unless Member has been paid a Corporate Tax Credit therefore under paragraph 4 of this Agreement.

"Member" is an Associate company, including a husiness as indicated in Section 3 herein, which agrees to be subject to this Agreement.

"PPL" means PPL Corporation, a Pennsylvania Corporation.

<u>"Separate return tax"</u> is the tax on the Corporate taxable income or loss of an associate company as though such company were not a Member of a consolidated group. For purposes of computing the Separate return tax of a Member which is a limited liability company, such Member shall be considered to possess and be entitled to use losses, carryovers, tax credits and other tax attributes (1) attributable to a predecessor of such Member taxable as a corporation or (2) arising while such Member is a limited liability company.

These definitions shall apply, as appropriate, in the context of the regular income tax and the Alternative Minimum Tax ("AMT") unless otherwise indicated in the Agreement.

2. A U.S. consolidated income tax return shall be filed by Parent, or its designee, for all tax periods covered under this Agreement and for which the Affiliated Group is required or permitted to file a consolidated tax return. Parent, or its designee, shall be responsible for the preparation of such returns, and shall be entitled to make all such elections under the Code as it shall deem appropriate or advisable in connection with those returns; provided that Parent, or its designee, shall have no liability to the subsidiaries for any errors or omissions in the preparation or filing of those returns, or in connection with those elections. Each of the undersigned Members shall, and shall cause their respective subsidiaries to execute and file such consents, elections, and other documents that Parent may determine are required or appropriate, in Parent's discretion and at its request, for the proper filing of, or in connection with, such returns, and take all such other actions as shall be required to give effect to the provisions of this Agreement. The undersigned Members and their respective subsidiaries are hereinafter collectively referred to as the "subsidiaries" or "Members", and individually referred to as a "subsidiary" or a "Member" and shall be bound by this agreement.

3. BUSINESSES OPERATING IN LLC OR LP FORM

For purposes of allocating the consolidated federal and state tax liabilities and tax benefits under this Agreement, each business operating as an LLC or LP shall be considered a Member, and shall be responsible for its allocable share of Corporate taxable income (or shall be entitled to a credit for its allocable share of Corporate taxable loss), as set forth in Sections 4 through 7 hereof. For purposes of this Agreement, the determination of a regulated business's allocable share shall be made (i) as if such regulated business was a regarded entity for U.S. federal income tax purposes and (ii) utilizing the separate "Corporate taxable income" or stand alone method.

4. TAX ALLOCATION PROCEDURES

The Consolidated tax shall be allocated among the Members of the group utilizing the separate "Corporate taxable income" or stand alone method, in the following manner:

a) Each Member, which has a Corporate taxable loss, will be entitled to a Corporate tax credit equal to the amount by which the consolidated regular income tax is reduced by including the Corporate taxable loss of such Member in the consolidated tax return. The Members having Corporate taxable income will be allocated an amount of regular income tax liability equal to the sum of the consolidated regular tax liability and the Corporate tax credits allocated to the Members having Corporate taxable losses based on the ratio that each such Member's Corporate taxable income bears to the total Corporate taxable income of all Members having Corporate

*** 4:

taxable income. If the aggregate of the Members' Corporate tax losses are not entirely utilized on the current year's consolidate return, the consolidated carryback or carryforward of such losses to the applicable taxable year(s) will be allocated to each Member having a Corporate taxable loss in the ratio that such Member's separate Corporate taxable loss bears to the total Corporate taxable losses of all Members having Corporate taxable losses.

Intercompany eliminations recorded by consolidation entries that affect the Consolidated tax will be assigned to the appropriate Member necessitating the intercompany elimination for the purpose of computing Separate return tax.

- b) The consolidated AMT will be allocated among the Members in accordance with the procedures and principles set forth in Proposed Treasury Regulation Section 1.1502-55 in the form such regulation existed on the date on which this Agreement was executed. For purposes of this Agreement, any liability for alternative minimum tax shall be treated as part of the Member's separate tax liability provided that the entire Affiliated Group incurs an alternative minimum tax liability.
- c) Tax benefits such as general business credits, foreign tax benefits, or other tax credits shall be apportioned directly to those Members whose investments or contributions generated the credit or benefit.
- If the credit or benefit cannot be entirely utilized to offset current consolidated tax, the consolidated credit carryback or carryforward shall be apportioned to those Members whose investments or contributions generated the credit or benefit in proportion to the relative amounts of credits or benefits generated by each Member.
- d) If the amount of consolidated tax allocated to any Member under this Agreement, as determined above, exceeds the separate return tax of such Member, such excess shall be reallocated among those Members who allocated tax liability is less than the amount of their respective separate return tax liabilities (i.e. sur-tax exemption). The reallocation shall be proportionate to the respective reductions in separate return tax liability of such Members. Any remaining unallocated tax liability shall be assigned to PPL. The term "tax" and "tax liability" used in the subsection shall include regular tax and AMT. Under no circumstances shall the amount of tax liability allocated to a Member of the Affiliated Group under this Agreement exceed its separate tax liability. The remaining cost or benefit will be allocated to the applicable business unit parent on at least an annual basis.

5. TAX PAYMENTS AND COLLECTIONS FOR ALLOCATIONS

Parent, or its designee, shall make any calculations on behalf of the Members necessary to comply with the estimated tax provisions of the Internal Revenue Code of 1986 as amended (the "Code"). Based on such calculations, Parent, or its designee, shall charge or refund to the Members appropriate amounts at intervals consistent with the dates indicated by Code Section 6655. Parent, or its designee, shall be responsible for paying to the Internal Revenue Service the consolidated current federal income tax liability.

After filing the consolidated federal income tax return and allocating the consolidated tax liability among the Members, Parent, or its designee, shall charge or credit, as appropriate, the

Members to reflect the difference between prior payments or credits and their current tax as allocated under this Agreement.

Charges or credits shall be made within ten business days after the returns are filed or estimated tax payments are made. Charges or credits are permitted to be made with each Member through the use of an intercompany account, as permitted under applicable state regulatory jurisdictions.

6. ALLOCATION OF STATE TAX LIABILITIES OR BENEFITS

The allocation of state and local income tax liabilities will be determined based on the application of one of the following filing methods:

- (1) Separate entity
- (2) Unitary group
- (3) Nexus Combined
- (4) Consolidated (mirrors the federal group);

provided, however, that no Member's state or local tax income tax liability under the Agreement shall exceed its state or local tax liability had it filed a separate return.

All tax cost or benefit determined under a separate entity filing will be allocated to the subsidiary that filed the separate return.

Tax cost or benefit determined for a unitary filing will be allocated to the applicable business unit (such as a regulated company or group of non-regulated companies), similar to a separate entity filing allocation. For example, if a business unit files a state unitary return including a parent entity and its subsidiaries, the entire state tax cost or benefit is allocated to the business unit. Further allocation within the business unit is optional at the discretion of the business unit.

Tax cost or benefit determined for a nexus combined filing will be allocated as if each entity or business unit filed a "stand alone" or separate entity return. Both apportionment factors and taxable income are to be considered in the allocation. Any remaining cost or benefit will be allocated to the applicable business unit parent on at least an annual basis.

Tax cost or benefit determined for a consolidated filing will be allocated based on each subsidiary's or business unit's nexus (as defined below) with the individual state or locality. For example, state tax determined in a consolidated return will be allocated as if the entity (or business unit) filed a "stand alone" or separate tax return using both: (a) the entity's (or business unit's) property, payroll, and receipts apportioned to the state and (b) their taxable income or loss. No tax cost or benefit will be allocated to any entity or business unit having no nexus in the state or locality. The remaining cost or benefit will be allocated to the applicable business unit parent on at least an annual basis.

For purposes of state and local allocations, the following definitions are provided:

"Nexus" -- The connection an entity has with a taxing jurisdiction generally represented by property and payroll. The applicable jurisdiction's nexus standards will determine whether tax

cost or benefit is allocated to an entity. (e.g., state sales or receipts of an entity may require inclusion in a consolidated return even though the entity itself does not have nexus and is protected by PL 86-272.)

"Unitary"—The relationship between related/affiliated Members generally within a consolidated group. The applicable jurisdiction will determine whether the entities are unitary. This often requires a presence of unity of ownership (e.g., over 50% owned by common parent), unity of operation (back-office or central support functions) and unity of use (centralized policies, common management forces, intercompany products flow or services provided by one entity to another).

"Nexus-combined"-- A return that includes only those entities having nexus in the applicable jurisdiction.

7. TAX RETURN ADJUSTMENTS

In the event the consolidated tax return is subsequently adjusted by the Internal Revenue Service, state tax authorities, amended returns, claims for refund, or otherwise, such adjustments shall be reflected in the same manner as though they had formed part of the original consolidated return. Interest paid or received, and penalties imposed on account of any adjustment will be allocated to the responsible Member. In the case of a refund, Parent shall make payment to each Member for its share of the refund, determined in the same manner as in paragraph 3 above, within ten business days after the refund is received by Parent, and in the case of an increase in tax liability, each Member shall pay to Parent its allocable share of such increased tax liability, penalties and interest within ten days after receiving notice of such liability from Parent.

8. NEW MEMBERS

If, at any time, any other company becomes a Member of the Affiliated Group, the parties hereto agree that such new Member may become a party to this Agreement by executing a duplicate copy of this Agreement. Unless otherwise specified, such new Member shall have similar rights and obligations to all other Members under this Agreement.

9. MEMBERS LEAVING THE AFFILIATED GROUP

In the event that any Member of the Affiliated Group at any time leaves the group and, under any applicable statutory provision or regulation, that Member is assigned and is deemed to take with it all or a portion of any of the tax attributes (including, but not limited to, net operating losses, credit carryforwards, and minimum tax credit carryforwards) of the Affiliated Group, then, to the extent the amount of the attributes so assigned differs from the amount of such attributes previously allocated to such Member under this Agreement, the leaving Member shall appropriately settle with the group. Such settlement shall consist of payment of a dollar-for-dollar basis for all differences in credits and, in the case of net operating loss differences, in an amount computed by reference to the highest marginal corporate tax rate. The settlement amounts shall be allocated among the remaining Members of the group in proportion to the relative level of attributes possessed by each Member and the attributes of each Member shall be adjusted accordingly.

10. SUCCESSORS, ASSIGNS

The provisions and terms of the Agreement shall be binding on and insure to the benefit of any successor or assignee by reason of merger, acquisition of assets, or otherwise, of any of the Members hereto.

11. AMENDMENTS AND TERMINATION

This Agreement may be amended at any time by the written agreement of the parties hereto at the date of such amendment and may be terminated at any time by the written consent of all such parties.

12. GOVERNING LAW

This Agreement is made under the law of the Commonwealth of Pennsylvania, which law shall be controlling in all matters relating to the interpretation, construction, or enforcement hereof.

13. EFFECTIVE DATE

i di

This Agreement is effective for the allocation of the current federal income tax liabilities of the Members for the consolidated tax year (2010) and all subsequent years until this Agreement is revised in writing.

The above procedure for apportioning the consolidated annual net current federal and state tax liabilities and tax benefits of PPL and consenting Members of its consolidated group have been agreed to by each of the below listed Members of the consolidated group as evidenced by the signature of an officer of each business unit or sub-group parent company.

22.

Attachment to Response to KU KIUC-2 Question No. 17 Page 8 of 8 Garrett

PPL CORPORATION By: Alexander J. Wrok Assistant Treasurer
LG&E AND KU ENERGY LLC By:
S. Bradford Rives Chief Financial Officer
By: S. Bradford Rives Chief Financial Officer
KENTUCKY UTILITIES COMPANY By:
S. Bradford Rives Chief Financial Officer
LG&B ENERGY MARKETING INC. By:
S. Bradford Rives Vice President and Controller
LG&E AND KLYSERVICES COMPANY By:

Chief Financial Officer

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 18

Responding Witness: Daniel K. Arbough / Valerie L. Scott

Q-18. Refer to the response to AG 1-31.

- a. Provide the annual amortization expense for the key man life insurance by FERC account for each year 2012 through 2016, the base year, and the test year.
- b. Explain why the Company incurred these costs and provide all reasons why the Company believes the costs are reasonable to recover from customers.
- c. If the Company records income or accretion in the cash value of the policies, then describe how these amounts are recorded for accounting purposes and how the income or accretion is reflected in the filing.

A-18.

a.

Year	Account	Balance
2012	426.2	\$ 1,984,550
2013	426.2	1,888,158
2014	426.2	1,372,796
2015	426.2	1,899,664
2016	426.2	1,713,363
Base Year	426.2	1,717,069
Test Year	426.2	1,752,847

- b. The Company records all expenses related to key man life insurance below the line and therefore these expenses are not included in rate making.
- c. See the response to PSC 1-8 for Company Policy 961 Cash Surrender Value of Key Man Life Insurance. These amounts are recorded below the line and are not included in rate making.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 19

Responding Witness: Valerie L. Scott

- Q.2-19. Refer to the response to AG 1-78. The Company did not provide the information requested. Provide the information requested in electronic spreadsheet format.
- A.2-19. See attachment being provided in Excel format.

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

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 20

Responding Witness: John J. Spanos

- Q.2-20. Refer to the response to AG 1-181. Provide the depreciation rates without the proposed 2.5% escalation on terminal net salvage.
- A.2-20. The attached schedule sets forth the depreciation rates without the proposed 2.5% escalation of terminal net salvage.

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

			NET		воок		CALCULATED	ANNUAL	COMPOSITE
	ACCOUNT	SURVIVOR CURVE	SALVAGE PERCENT	ORIGINAL COST	DEPRECIATION RESERVE	FUTURE ACCRUALS	ACCRUAL AMOUNT	ACCRUAL RATE	REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	DEPRECIABLE PLANT								
	DEPRECIABLE PLANT								
	INTANGIBLE PLANT								
302.00	FRANCHISES AND CONSENTS	20-SQ	0	55,918.83	52,578	3,341	2,029	3.63	1.6
303.00 303.10	MISCELLANEOUS INTANGIBLE PLANT CCS SOFTWARE	5-SQ SQUARE	* 0	51,209,431.96 41,045,494.53	17,788,070 26,586,875	33,421,362 14,458,620	10,731,787 4,131,034	20.96 10.06	3.1 3.5
303.10		SQUARE	U	41,045,494.55	20,300,673	14,430,020	4,131,034	10.06	3.5
	TOTAL INTANGIBLE PLANT			92,310,845.32	44,427,523	47,883,323	14,864,850		
	STEAM PRODUCTION PLANT								
311.00	STRUCTURES AND IMPROVEMENTS								
	TRIMBLE COUNTY UNIT 2	100-R2.5	* (8)	95,533,749.13	23,445,099	79,731,350	1,655,125	1.73	48.2
	TRIMBLE COUNTY UNIT 2 SCRUBBER	100-R2.5	* (8)	5,556,451.46	3,082,793	2,918,175	62,379	1.12	46.8
	SYSTEM LABORATORY BROWN UNIT 1	100-R2.5 100-R2.5	* (1) * (5)	1,102,956.39 4,690,069.46	713,561 4,858,759	400,425 65,814	16,627 8,799	1.51 0.19	24.1 7.5
	BROWN UNIT 2	100-R2.5	* (5)	2,297,196.43	2,008,651	403,405	30,046	1.31	13.4
	BROWN UNIT 3	100-R2.5	* (5)	22,711,518.61	14,083,124	9,763,971	507,382	2.23	19.2
	BROWN UNIT 1, 2 AND 3 SCRUBBER	100-R2.5	* (5)	45,507,722.44	8,775,718	39,007,391	2,015,885	4.43	19.4
	GHENT UNIT 1 SCRUBBER	100-R2.5	* (5)	8,397,192.12	7,331,103	1,485,949	81,417	0.97	18.3
	GHENT UNIT 1 GHENT UNIT 2	100-R2.5 100-R2.5	* (5) * (5)	19,505,041.37 16,258,655.69	18,115,555 14,507,970	2,364,738 2,563,618	128,818 142,092	0.66 0.87	18.4 18.0
	GHENT UNIT 3	100-R2.5	* (5)	51,066,601.71	32,981,268	20,638,664	978,003	1.92	21.1
	GHENT UNIT 4	100-R2.5	* (5)	33,248,360.76	15,639,157	19,271,622	871,979	2.62	22.1
	GHENT UNIT 2 SCRUBBER	100-R2.5	* (5)	15,817,337.72	13,742,096	2,866,109	157,306	0.99	18.2
	TOTAL ACCOUNT 311 - STRUCTURES AND IMPROVEMENTS			321,692,853.29	159,284,854	181,481,231	6,655,858	2.07	27.3
311.10	STRUCTURES AND IMPROVEMENTS - ASH PONDS								
	TRIMBLE COUNTY UNIT 2 ASH POND	100-S4	* 0	4,562,600.30	2,148,119	2,414,481	48,425	1.06	49.9
	GHENT UNIT 1 SCRUBBER ASH POND GHENT UNIT 1 ASH POND	100-S4	* 0	39,480.55	34,420	5,061	274	0.69	18.5
		100-S4	. 0	322,828.55	304,586	18,243	986	0.31	18.5
	TOTAL ACCOUNT 311.1 - STRUCTURES AND IMPROVEMENTS - ASH PONDS			4,924,909.40	2,487,125	2,437,785	49,685	1.01	49.1
311.20	STRUCTURES AND IMPROVEMENTS - RETIRED PLANT								
	TYRONE UNIT 3 TYRONE UNITS 1 AND 2	100-R2.5 100-R2.5	* (10)	1,692,976.56 583.381.44	1,862,274	0	0	-	-
	GREEN RIVER UNIT 3	100-R2.5 100-R2.5	* (10) * (10)	2,549,285.01	641,720 2,804,214	0	0		
	GREEN RIVER UNIT 4	100-R2.5	* (10)	4,560,022.06	5,016,024	0	0	-	
	GREEN RIVER UNITS 1 AND 2	100-R2.5	* (10)	1,558,538.26	1,714,392	0	0	-	-
	PINEVILLE UNIT 3	100-R2.5	* (10)	37,239.96	40,964			-	-
	TOTAL ACCOUNT 311.2 - STRUCTURES AND IMPROVEMENTS - RETIRED PLANT			10,981,443.29	12,079,588	0	0	-	-
312.00	BOILER PLANT EQUIPMENT								
	TRIMBLE COUNTY UNIT 2	65-R2	* (8)	531,933,576.48	92,306,117	482,182,146	10,766,498	2.02	44.8
	TRIMBLE COUNTY UNIT 2 SCRUBBER BROWN UNIT 1	65-R2 65-R2	* (8)	73,021,689.57	18,602,423 22,985,071	60,261,002 19,241,938	1,354,508 2,602,922	1.85 6.47	44.5 7.4
	BROWN UNIT 2	65-R2	* (5) * (5)	40,216,199.41 41,452,992.23	15,937,592	27,588,050	2,105,633	5.08	13.1
	BROWN UNIT 3	65-R2	* (5)	335,039,815.44	74,041,334	277,750,472	14,672,211	4.38	18.9
	BROWN UNIT 1, 2 AND 3 SCRUBBER	65-R2	* (5)	334,559,939.62	77,676,980	273,610,957	14,360,256	4.29	19.1
	GHENT UNIT 1 SCRUBBER	65-R2	* (5)	138,832,539.39	47,058,422	98,715,744	5,463,537	3.94	18.1
	GHENT UNIT 1	65-R2	* (5)	347,267,291.09	96,144,803	268,485,853	14,912,246	4.29	18.0
	GHENT UNIT 2 GHENT UNIT 3	65-R2 65-R2	* (5)	269,565,973.05	67,704,359	215,339,913 278,256,515	11,971,407	4.44 3.17	18.0 20.6
	GHENT UNIT 4	65-R2	* (5) * (5)	425,512,609.68 735,664,440.23	168,531,725 135,118,842	637,328,820	13,484,015 29,350,186	3.17	20.6
	GHENT UNIT 2 SCRUBBER	65-R2	* (5)	66,258,293.73	59,902,017	9,669,191	538,662	0.81	18.0
	GHENT UNIT 3 SCRUBBER	65-R2	* (5)	118,460,532.34	31,824,024	92,559,535	4,454,181	3.76	20.8
	GHENT UNIT 4 SCRUBBER	65-R2	* (5)	253,701,662.20	77,381,453	189,005,292	8,646,102	3.41	21.9
	TOTAL ACCOUNT 312 - BOILER PLANT EQUIPMENT			3,711,487,554.46	985,215,162	2,929,995,428	134,682,364	3.63	21.8

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

				NET		воок		CALCULATED	ANNUAL	COMPOSITE
	ACCOUNT	SURVIVOR CURVE		SALVAGE PERCENT	ORIGINAL COST	DEPRECIATION RESERVE	FUTURE ACCRUALS	ACCRUAL AMOUNT	ACCRUAL RATE	REMAINING LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
312.10	BOILER PLANT EQUIPMENT - ASH PONDS	100-S4		0	4 040 005 00	676,102	2 024 502	77.000	4.00	50.5
	TRIMBLE COUNTY UNIT 2 ASH POND BROWN UNIT 1 ASH POND	100-S4 100-S4		0	4,610,665.23 575,455.72	575,456	3,934,563	77,928 0	1.69	50.5
	BROWN UNIT 2 ASH POND	100-S4	*	0	1,831,840.98	1,831,841	0	0	_	-
	BROWN UNIT 3 ASH POND	100-S4	*	0	91,265.89	91,266	0	0	-	-
	GHENT UNIT 1 ASH POND	100-S4	*	0	9,299,115.00	7,598,416	1,700,699	226,760	2.44	7.5
	GHENT UNIT 4 ASH POND GHENT UNIT 2 SCRUBBER ASH POND	100-S4 100-S4	:	0	3,909,061.67	3,256,464	652,598	48,341	1.24	13.5 19.5
	TYRONE UNIT 3 - ASH POND	100-S4 100-S4		0	19,802,080.26 1,777,792.39	6,026,115 1,464,285	13,775,965 313,507	706,460 16,983	3.57 0.96	18.5
	GREEN RIVER UNIT 3 - ASH POND	100-S4	*	0	32,692,663.87	13,338,503	19,354,161	860,185	2.63	22.5
	PINEVILLE UNIT 3 - ASH POND	100-S4	*	0	1,901,133.18	1,901,133	0	0	-	-
	TOTAL ACCOUNT 312.1 - BOILER PLANT EQUIPMENT - ASH PONDS				76,491,074.19	36,759,581	39,731,493	1,936,657	2.53	20.5
312.20	BOILER PLANT EQUIPMENT - RETIRED PLANT									
	TYRONE UNIT 3	65-R2	*	(10)	91,162.48	100,279	0	0	-	-
	TYRONE UNITS 1 AND 2 GREEN RIVER UNIT 3	65-R2 65-R2	:	(10)	35,937.44	39,531	0	0	-	-
	GREEN RIVER UNIT 3 GREEN RIVER UNIT 4	65-R2		(10) (10)	41,300.90 599,315.53	45,431 659,247	0	0		-
	GREEN RIVER UNITS 1 AND 2	65-R2	*	(10)	152,243.76	167,468	0	Ö	-	-
	PINEVILLE UNIT 3	65-R2	*	(10)	145,202.53	159,723	0	0	-	-
	TOTAL ACCOUNT 312.2 - BOILER PLANT EQUIPMENT - RETIRED PLANT AND ASH PONDS				1,065,162.64	1,171,679	0	0	-	-
314.00	TURBOGENERATOR UNITS									
	TRIMBLE COUNTY UNIT 2 BROWN UNIT 1	60-R2	:	(8)	89,907,009.94	20,271,673	76,827,898	1,770,873	1.97	43.4
	BROWN UNIT 2	60-R2 60-R2		(5) (5)	8,340,751.67 13,741,664.70	3,801,260 9,070,939	4,956,529 5,357,809	679,299 407,878	8.14 2.97	7.3 13.1
	BROWN UNIT 3	60-R2	*	(5)	45,458,100.43	20,614,566	27,116,439	1,445,537	3.18	18.8
	GHENT UNIT 1	60-R2	*	(5)	38,748,250.59	20,826,042	19,859,621	1,127,745	2.91	17.6
	GHENT UNIT 2	60-R2	*	(5)	31,826,255.72	21,384,390	12,033,179	706,275	2.22	17.0
	GHENT UNIT 3 GHENT UNIT 4	60-R2 60-R2	:	(5) (5)	43,067,738.16 57,957,357.43	29,423,726 33,064,819	15,797,399 27,790,406	804,546 1,351,140	1.87 2.33	19.6 20.6
	TOTAL ACCOUNT 314 - TURBOGENERATOR UNITS			1.7	329,047,128.64	158,457,415	189,739,280	8,293,293	2.52	22.9
314.10	TURBOGENERATOR UNITS - RETIRED PLANT									
	TYRONE UNIT 3					460,380				
	TYRONE UNITS 1 AND 2					377,537				
	GREEN RIVER UNIT 3					361,644				
	GREEN RIVER UNIT 4					2,233,665				
	TOTAL ACCOUNT 314.1 - TURBOGENERATOR UNITS - RETIRED PLANT					3,433,226				
315.00	ACCESSORY ELECTRIC EQUIPMENT TRIMBLE COUNTY UNIT 2	70-R3		(8)	47,156,606.94	8,082,472	42,846,663	919,379	1.95	46.6
	TRIMBLE COUNTY UNIT 2 TRIMBLE COUNTY UNIT 2 SCRUBBER	70-R3 70-R3		(8)	1,415,469.10	751,018	42,846,663 777,689	19,019	1.34	40.9
	BROWN UNIT 1	70-R3	*	(5)	4,224,540.53	3,219,138	1,216,630	162,781	3.85	7.5
	BROWN UNIT 2	70-R3	*	(5)	2,408,998.58	1,409,941	1,119,508	83,617	3.47	13.4
	BROWN UNIT 3	70-R3	*	(5)	8,959,757.01	6,735,226	2,672,519	138,260	1.54	19.3
	BROWN UNIT 1, 2 AND 3 SCRUBBER GHENT UNIT 1 SCRUBBER	70-R3 70-R3		(5) (5)	29,308,888.08 12,144,071.97	5,739,630 4,905,197	25,034,702 7,846,079	1,291,780 427,209	4.41 3.52	19.4 18.4
	GHENT UNIT 1	70-R3	*	(5)	11,725,994.72	8,500,593	3,811,701	208,545	1.78	18.3
	GHENT UNIT 2	70-R3	*	(5)	14,302,432.69	11,303,320	3,714,234	209,100	1.46	17.8
	GHENT UNIT 3	70-R3	*	(5)	33,488,118.71	24,419,733	10,742,792	524,725	1.57	20.5
	GHENT UNIT 4	70-R3	:	(5)	27,465,559.02	18,041,343	10,797,494	502,078	1.83	21.5
	GHENT UNIT 2 SCRUBBER GHENT UNIT 3 SCRUBBER	70-R3 70-R3		(5) (5)	951,198.87 12,041,998.28	180,721 3,570,888	818,038 9,073,210	44,481 427,260	4.68 3.55	18.4 21.2
	GHENT UNIT 4 SCRUBBER	70-R3	*	(5)	15,148,041.55	2,357,879	13,547,565	607,514	4.01	22.3
	TOTAL ACCOUNT 315 - ACCESSORY ELECTRIC EQUIPMENT				220,741,676.05	99,217,099	134,018,824	5,565,748	2.52	24.1
315.10	ACCESSORY ELECTRIC EQUIPMENT - RETIRED PLANT									
	TYRONE UNIT 3	70-R3	:	(10)	24,678.67	27,147	0	0	-	-
	GREEN RIVER UNIT 3 GREEN RIVER UNIT 4	70-R3 70-R3		(10) (10)	165,716.59 480,433.11	182,288 528,476	0	0	-	-
	TOTAL ACCOUNT 315.1 - ACCESSORY ELECTRIC EQUIPMENT - RETIRED PLANT			/	670,828.37	737,911	0	0	-	-

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

		SURVIVOR		NET SALVAGE	ORIGINAL	BOOK DEPRECIATION	FUTURE	CALCULATED	ANNUAL	COMPOSITE REMAINING
	ACCOUNT	CURVE		PERCENT	COST	RESERVE	ACCRUALS	AMOUNT	RATE	LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
316.00	MISCELLANEOUS PLANT EQUIPMENT TRIMBLE COUNTY UNIT 2 SYSTEM LABORATORY BROWN UNIT 1 BROWN UNIT 2 BROWN UNIT 3 GHENT UNIT 1 SCRUBBER GHENT UNIT 1 GHENT UNIT 1	75-R1.5 75-R1.5 75-R1.5 75-R1.5 75-R1.5 75-R1.5 75-R1.5 75-R1.5	:	(8) (1) (5) (5) (5) (5) (5) (5)	8,369,509,98 3,234,114,29 445,832,67 123,107.10 6,381,168.11 1,033,027.09 1,883,273.64 1,527,545.73	721,700 901,711 355,631 107,051 3,287,152 948,862 1,666,398 1,449,503	8,317,371 2,364,744 112,493 22,211 3,413,075 135,816 311,039 154,420	183,340 101,143 15,212 1,680 181,900 7,632 17,447 8,861	2.19 3.13 3.41 1.36 2.85 0.74 0.93 0.58	45.4 23.4 7.4 13.2 18.8 17.8 17.8
	GHENT UNIT 3 GHENT UNIT 4	75-R1.5 75-R1.5		(5) (5)	3,984,043.73 8,771,982.95	2,671,355 3,568,709	1,511,891 5,641,873	74,065 263,210	1.86 3.00	20.4 21.4
	TOTAL ACCOUNT 316 - MISCELLANEOUS PLANT EQUIPMENT	75-1(1.5		(5)	35,753,605.29	15,678,072	21,984,933	854,490	2.39	25.7
316.10	MISCELLANEOUS PLANT EQUIPMENT - RETIRED PLANT TYRONE UNIT 3 TYRONE UNITS 1 AND 2 GREEN RIVER UNIT 4 GREEN RIVER UNITS 1 AND 2	75-R1.5 75-R1.5 75-R1.5 75-R1.5	:	(10) (10) (10) (10)	74,491.69 11,541.15 380,191.26 45,689.51	81,941 12,695 418,210 50,258	0 0 0 0	0 0 0 0	- - - - -	- - - -
	TOTAL ACCOUNT 316.1 - MISCELLANEOUS PLANT EQUIPMENT - RETIRED PLANT				511,913.61	563,104	0_	0_	-	-
	TOTAL STEAM PRODUCTION PLANT				4,713,368,149.23	1,475,084,816	3,499,388,974	158,038,095		
	HYDROELECTRIC PRODUCTION PLANT									
330.10	LAND RIGHTS DIX DAM	100-R4		0	879,311.47	912,333	(33,022)	0_	-	-
	TOTAL ACCOUNT 330.1 - LAND RIGHTS				879,311.47	912,333	(33,022)	0	-	-
331.00	STRUCTURES AND IMPROVEMENTS DIX DAM	90-S2.5		(3)	827,602.64	345,562	506,869	20,516	2.48	24.7
	TOTAL ACCOUNT 331 - STRUCTURES AND IMPROVEMENTS				827,602.64	345,562	506,869	20,516	2.48	24.7
332.00	RESERVOIRS, DAMS & WATERWAY DIX DAM	105-\$2.5		(3)	21,885,646.37	8,216,620	14,325,596	570,125	2.61	25.1
	TOTAL ACCOUNT 332 - RESERVOIRS, DAMS & WATERWAYS				21,885,646.37	8,216,620	14,325,596	570,125	2.61	25.1
333.00	WATER WHEELS, TURBINES & GENERATORS DIX DAM	75-R3		(3)	14,058,896.32	817,722	13,662,941	542,711	3.86	25.2
	TOTAL ACCOUNT 333 - WATER WHEELS, TURBINES & GENERATORS				14,058,896.32	817,722	13,662,941	542,711	3.86	25.2
334.00	ACCESSORY ELECTRIC EQUIPMENT DIX DAM	40-L2.5		(3)	1,321,688.77	220,518	1,140,821	50,351	3.81	22.7
	TOTAL ACCOUNT 334 - ACCESSORY ELECTRIC EQUIPMENT				1,321,688.77	220,518	1,140,821	50,351	3.81	22.7
335.00	MISCELLANEOUS POWER PLANT EQUIPMENT DIX DAM	40-S0		(3)	316,946.74	116,558	209,897	11,924	3.76	17.6
	TOTAL ACCOUNT 335 - MISCELLANEOUS POWER PLANT EQUIPMENT				316,946.74	116,558	209,897	11,924	3.76	17.6
336.00	ROADS, RAILROADS & BRIDGES DIX DAM	60-R4		(3)	234,509.13	70,567	170,977	7,820	3.33	21.9
	TOTAL ACCOUNT 336 - ROADS, RAILROADS & BRIDGES				234,509,13	70,567	170,977	7,820	3.33	21.9
	TOTAL HYDROELECTRIC PRODUCTION PLANT				39,524,601.44	10,699,880	29,984,079	1,203,447		
	OTHER PRODUCTION PLANT									
340.10	LAND RIGHTS BROWN CT UNIT 9 GAS PIPE	SQUARE		0	176,409.31	116,532	59,877	3,863	2.19	15.5
	TOTAL ACCOUNT 340.1 - LAND AND LAND RIGHTS				176,409.31	116,532	59,877	3,863	2.19	15.5
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TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

				NET		воок		CALCULATED	ΔΝΝΙΙΔΙ	COMPOSITE
		SURVIVOR		SALVAGE	ORIGINAL	DEPRECIATION	FUTURE	ACCRUAL	ACCRUAL	REMAINING
	ACCOUNT	CURVE	F	PERCENT	COST	RESERVE	ACCRUALS	AMOUNT	RATE	LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
341.00	STRUCTURES AND IMPROVEMENTS									
	CANE RUN CC 7	50-R2.5	*	(6)	46,895,473.79	663,228	49,045,974	1,344,462	2.87	36.5
	TRIMBLE COUNTY CT 5 TRIMBLE COUNTY CT 6	50-R2.5 50-R2.5		(5) (5)	3,740,231.32 3,588,684.24	1,711,412 1,647,141	2,215,831 2,120,977	139,904 133,980	3.74 3.73	15.8 15.8
	TRIMBLE COUNTY CT 7	50-R2.5 50-R2.5		(5)	3,559,154.97	1,423,558	2,313,555	130,488	3.67	17.7
	TRIMBLE COUNTY CT 8	50-R2.5	*	(5)	3,548,851.71	1,419,437	2,306,857	130,110	3.67	17.7
	TRIMBLE COUNTY CT 9	50-R2.5	*	(5)	3,655,976.41	1,452,931	2,385,844	134,565	3.68	17.7
	TRIMBLE COUNTY CT 10 BROWN CT 5	50-R2.5 50-R2.5	:	(5) (5)	3,653,029.99 785.900.23	1,451,760 380,011	2,383,921 445.184	134,457 29.892	3.68 3.80	17.7 14.9
	BROWN CT 6	50-R2.5 50-R2.5		(5)	785,900.23 192,814.02	97,181	445,184 105,274	8,068	3.80 4.18	13.0
	BROWN CT 7	50-R2.5	*	(5)	567,512.07	287,418	308,470	23,675	4.17	13.0
	BROWN CT 8	50-R2.5	*	(5)	2,012,654.95	1,419,091	694,197	75,519	3.75	9.2
	BROWN CT 9	50-R2.5	*	(5)	4,660,156.04	3,115,511	1,777,653	121,996	2.62	14.6
	BROWN CT 10 BROWN CT 11	50-R2.5 50-R2.5		(5) (5)	1,865,718.20 1,919,015.13	1,202,272 1,208,894	756,732 806,072	51,936 79,182	2.78 4.13	14.6 10.2
	HAEFLING UNITS 1, 2 AND 3	50-R2.5		(9)	291,451.55	71,390	246,292	55,227	18.95	4.5
	PADDY'S RUN GENERATOR 13	50-R2.5	*	(5)	2,136,302.83	936,648	1,306,470	87,400	4.09	14.9
	TOTAL ACCOUNT 341 - STRUCTURES AND IMPROVEMENTS				83,072,927.45	18,487,883	69,219,303	2,680,861	3.23	25.8
342.00	FUEL HOLDERS, PRODUCERS AND ACCESSORIES									
342.00	CANE RUN CC 7	45-R2.5	*	(6)	111,535,551.95	1,643,640	116,584,045	3,272,075	2.93	35.6
	CANE RUN GAS PIPELINE	45-R2.5	*	(6)	23,414,526.87	345,052	24,474,346	686,903	2.93	35.6
	TRIMBLE COUNTY CT 5	45-R2.5	*	(5)	239,584.43	110,150	141,414	9,047	3.78	15.6
	TRIMBLE COUNTY CT 6 TRIMBLE COUNTY CT PIPELINE	45-R2.5 45-R2.5	:	(5)	239,245.54	110,006	141,202	9,034	3.78 3.42	15.6
	TRIMBLE COUNTY CT PIPELINE TRIMBLE COUNTY CT 7	45-R2.5 45-R2.5		(5) (5)	4,856,134.65 578,059.38	2,216,039 231,910	2,882,902 375,052	166,051 21,419	3.42	17.4 17.5
	TRIMBLE COUNTY CT 8	45-R2.5	*	(5)	576,385.74	231,239	373,966	21,357	3.71	17.5
	TRIMBLE COUNTY CT 9	45-R2.5	*	(5)	593,786.01	236,879	386,596	22,079	3.72	17.5
	TRIMBLE COUNTY CT 10	45-R2.5	*	(5)	622,872.60	246,641	407,375	23,251	3.73	17.5
	BROWN CT 5 BROWN CT 6	45-R2.5 45-R2.5		(5) (5)	795,787.89 959,617.20	261,412 141,990	574,165 865,608	38,714 65,360	4.86 6.81	14.8 13.2
	BROWN CT 7	45-R2.5		(5)	959,028.11	138,794	868,186	65,554	6.84	13.2
	BROWN CT 8	45-R2.5	*	(5)	263,045.52	120,424	155,774	16,605	6.31	9.4
	BROWN CT 9	45-R2.5	*	(5)	3,155,168.57	1,205,201	2,107,726	142,502	4.52	14.8
	BROWN CT 10	45-R2.5	:	(5)	282,445.64	71,115	225,453	14,966	5.30	15.1
	BROWN CT 11 BROWN CT UNIT 9 GAS PIPE	45-R2.5 45-R2.5		(5) (5)	301,560.87 8,208,122.69	92,783 5,255,746	223,856 3,362,783	21,690 236,908	7.19 2.89	10.3 14.2
	HAEFLING UNITS 1, 2 AND 3	45-R2.5	*	(9)	472,116.83	192,271	322,336	73,217	15.51	4.4
	PADDY'S RUN GENERATOR 13	45-R2.5	*	(5)	1,997,091.15	975,255	1,121,691	76,341	3.82	14.7
	TOTAL ACCOUNT 342 - FUEL HOLDERS, PRODUCERS AND ACCESSORIES				160,050,131.64	13,826,547	155,594,476	4,983,073	3.11	31.2
343.00	PRIME MOVERS									
	CANE RUN CC 7	35-R1.5	*	(6)	89,873,336.88	1,353,524	93,912,213	3,038,247	3.38	30.9
	TRIMBLE COUNTY CT 5	35-R1.5	:	(5)	33,056,281.24	13,187,243	21,521,852	1,468,444	4.44	14.7
	TRIMBLE COUNTY CT 6 TRIMBLE COUNTY CT 7	35-R1.5 35-R1.5		(5) (5)	32,944,728.98 26,290,569.66	13,527,496 8,647,624	21,064,469 18,957,474	1,438,271 1,156,764	4.37 4.40	14.6 16.4
	TRIMBLE COUNTY CT 8	35-R1.5	*	(5)	25,158,461.82	8,098,854	18,317,531	1,119,568	4.45	16.4
	TRIMBLE COUNTY CT 9	35-R1.5	*	(5)	24,889,310.25	8,411,416	17,722,360	1,084,216	4.36	16.3
	TRIMBLE COUNTY CT 10	35-R1.5	*	(5)	24,739,825.43	8,285,715	17,691,102	1,081,598	4.37	16.4
	BROWN CT 5 BROWN CT 6	35-R1.5 35-R1.5		(5) (5)	14,722,669.92 34,702,471.57	6,777,304 14,206,645	8,681,499 22,230,950	628,101 1,822,787	4.27 5.25	13.8 12.2
	BROWN CT 7	35-R1.5		(5)	31,876,587.22	13,616,280	19,854,137	1,631,398	5.25	12.2
	BROWN CT 8	35-R1.5	*	(5)	26,679,925.25	14,860,849	13,153,073	1,488,875	5.58	8.8
	BROWN CT 9	35-R1.5	*	(5)	28,711,611.96	12,156,038	17,991,155	1,317,452	4.59	13.7
	BROWN CT 10	35-R1.5	:	(5)	25,926,887.42	10,072,720	17,150,512	1,241,363	4.79	13.8
	BROWN CT 11 PADDY'S RUN GENERATOR 13	35-R1.5 35-R1.5		(5) (5)	34,682,773.23 19,558,876.85	21,054,696 5,651,832	15,362,216 14,884,989	1,599,856 1,067,240	4.61 5.46	9.6 13.9
	TOTAL ACCOUNT 343 - PRIME MOVERS			(-)	473,814,317.68	159,908,236	338,495,532	21,184,180	4.47	16.0
344.00	GENERATORS									
344.00	CANE RUN CC 7	55-S2.5		(6)	113,390,206.33	1,903,560	118,290,059	3,099,844	2.73	38.2
	TRIMBLE COUNTY CT 5	55-S2.5	*	(5)	3,800,400.42	1,691,733	2,298,687	141,598	3.73	16.2
	TRIMBLE COUNTY CT 6	55-S2.5	*	(5)	3,795,072.48	1,689,538	2,295,288	141,389	3.73	16.2
	TRIMBLE COUNTY CT 7	55-S2.5	:	(5)	2,983,225.97	1,154,958	1,977,429	108,512	3.64	18.2
	TRIMBLE COUNTY CT 8 TRIMBLE COUNTY CT 9	55-S2.5 55-S2.5		(5) (5)	2,970,873.80 2,990,463.70	1,150,135 1,150,226	1,969,282 1,989,761	108,065 109,188	3.64 3.65	18.2 18.2
	TRIMBLE COUNTY CT 10	55-S2.5	*	(5)	2,987,092.13	1,149,086	1,987,361	109,056	3.65	18.2

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

			NET					CALCULATED ANNUAL		COMPOSITE
		SURVIVOR		LVAGE	ORIGINAL	BOOK DEPRECIATION	FUTURE	ACCRUAL	ACCRUAL	REMAINING
	ACCOUNT	CURVE	PE	RCENT	COST	RESERVE	ACCRUALS	AMOUNT	RATE	LIFE
	(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	BROWN CT 5	55-S2.5	*	(5)	2,866,821.78	1,327,386	1,682,777	110,356	3.85	15.2
	BROWN CT 6	55-S2.5	*	(5)	3,721,293.63	1,994,405	1,912,953	144,148	3.87	13.3
	BROWN CT 7	55-S2.5	*	(5)	3,731,462.57	1,971,763	1,946,273	146,652	3.93	13.3
	BROWN CT 8	55-S2.5	*	(5)	4,962,634.83	3,437,474	1,773,293	189,848	3.83	9.3
	BROWN CT 9	55-S2.5	•	(5)	5,460,715.08	3,599,863	2,133,888	143,758	2.63	14.8
	BROWN CT 10 BROWN CT 11	55-S2.5 55-S2.5		(5)	4,953,096.82	3,129,054	2,071,698	138,929	2.80 5.36	14.9
	HAEFLING UNITS 1, 2 AND 3	55-S2.5 55-S2.5		(5) (9)	5,762,894.98 2,682,135.68	2,847,510 2,341,531	3,203,530 581,997	308,840 137,544	5.36	10.4 4.2
	PADDY'S RUN GENERATOR 13	55-S2.5	*	(5)	5,450,549.42	2,269,181	3,453,896	226,126	4.15	15.3
	TOTAL ACCOUNT 344 - GENERATORS				172,508,939.62	32,807,403	149,568,172	5,363,853	3.11	27.9
345.00	ACCESSORY ELECTRIC EQUIPMENT									
0.0.00	CANE RUN CC 7	50-R3	*	(6)	26,286,452.56	421,424	27,442,216	736,704	2.80	37.2
	TRIMBLE COUNTY CT 5	50-R3	*	(5)	1,889,943.86	754,635	1,229,806	76,609	4.05	16.1
	TRIMBLE COUNTY CT 6	50-R3	*	(5)	4,329,841.09	1,688,232	2,858,101	178,734	4.13	16.0
	TRIMBLE COUNTY CT 7	50-R3	*	(5)	3,833,038.02	1,250,888	2,773,802	153,927	4.02	18.0
	TRIMBLE COUNTY CT 8	50-R3	•	(5)	3,144,581.31	1,229,820	2,071,990	115,553	3.67	17.9
	TRIMBLE COUNTY CT 9	50-R3		(5)	3,423,274.57	1,257,225	2,337,213	130,132	3.80	18.0
	TRIMBLE COUNTY CT 10 BROWN CT 5	50-R3 50-R3		(5) (5)	7,261,076.07 2,310,232.75	2,513,401 1,003,516	5,110,729 1,422,228	284,931 94,572	3.92 4.09	17.9 15.0
	BROWN CT 6	50-R3		(5)	2,026,642.95	987,425	1,140,550	86,933	4.29	13.1
	BROWN CT 7	50-R3	*	(5)	1,987,208.52	966,000	1,120,569	85,443	4.30	13.1
	BROWN CT 8	50-R3	*	(5)	3,326,335.69	1,750,769	1,741,883	187,141	5.63	9.3
	BROWN CT 9	50-R3	*	(5)	4,707,156.48	2,494,754	2,447,760	164,906	3.50	14.8
	BROWN CT 10	50-R3	*	(5)	3,245,891.87	1,659,633	1,748,553	117,883	3.63	14.8
	BROWN CT 11	50-R3	*	(5)	2,454,258.42	1,381,238	1,195,733	115,892	4.72	10.3
	HAEFLING UNITS 1, 2 AND 3	50-R3	*	(9)	816,263.41	105,619	784,108	179,026	21.93	4.4
	PADDY'S RUN GENERATOR 13	50-R3	•	(5)	2,499,650.62	1,141,302	1,483,331	98,575	3.94	15.0
	TOTAL ACCOUNT 345 - ACCESSORY ELECTRIC EQUIPMENT				73,541,848.19	20,605,881	56,908,572	2,806,961	3.82	20.3
346.00	MISCELLANEOUS PLANT EQUIPMENT CANE RUN CC 7	40-R2		(0)	04 005 55	88	22.241	000	3.15	20.5
	TRIMBLE COUNTY CT 5	40-R2 40-R2		(6) (5)	21,065.55 28,963.63	12,880	22,241 17,532	663 1,132	3.15 3.91	33.5 15.5
	TRIMBLE COUNTY CT 7	40-R2		(5)	8,888.93	3,661	5,672	335	3.77	16.9
	TRIMBLE COUNTY CT 8	40-R2	*	(5)	8,861.01	3,649	5,655	334	3.77	16.9
	TRIMBLE COUNTY CT 9	40-R2	*	(5)	9,113.52	3,730	5,839	345	3.79	16.9
	TRIMBLE COUNTY CT 10	40-R2	*	(5)	41,868.51	11,271	32,691	1,881	4.49	17.4
	BROWN CT 5	40-R2	*	(5)	2,139,352.61	1,067,229	1,179,091	82,799	3.87	14.2
	BROWN CT 6	40-R2	*	(5)	102,224.96	26,854	80,482	6,198	6.06	13.0
	BROWN CT 7	40-R2	•	(5)	84,123.48	21,717	66,613	5,119	6.09	13.0
	BROWN CT 8	40-R2		(5)	291,226.01	180,825	124,962	13,853	4.76	9.0
	BROWN CT 9 BROWN CT 10	40-R2 40-R2		(5) (5)	860,425.29 274,390.87	524,836 170,711	378,611 117,399	27,186 8,537	3.16 3.11	13.9 13.8
	BROWN CT 10	40-R2		(5)	590,562.82	323,816	296,275	29,616	5.01	10.0
	HAEFLING UNITS 1, 2 AND 3	40-R2		(9)	104,991.22	35,538	78,902	18,386	17.51	4.3
	PADDY'S RUN GENERATOR 13	40-R2	*	(5)	1,089,550.03	546,300	597,728	42,005	3.86	14.2
	TOTAL ACCOUNT 346 - MISCELLANEOUS PLANT EQUIPMENT				5,655,608.44	2,933,105	3,009,693	238,389	4.22	12.6
	TOTAL OTHER PRODUCTION PLANT				968,820,182.33	248,685,587	772,855,625	37,261,180		
	TRANSMISSION PLANT									
350.10	LAND AND LAND RIGHTS	70-R3		0	29,428,995.30	17,044,058	12,384,937	253,363	0.86	48.9
352.10	STRUCTURES & IMPROVEMENTS - NON SYS CONTROL/COM	70-R3		(25)	25,314,463.82	6,625,682	25,017,398	420,302	1.66	59.5
352.20	STRUCTURES & IMPROVEMENTS - SYS CONTROL/COM	65-R4		(25)	193,226.01	71,970	169,563	3,543	1.83	47.9
353.10	STATION EQUIPMENT - NON SYS CONTROL/COM	60-R2		(15)	257,735,637.27	70,441,066	225,954,917	4,908,788	1.90	46.0
353.20	STATION EQUIPMENT - SYS CONTROL/COM	45-R2		(15)	6,568,060.27	7,553,269	0	0	-	-
354.00	TOWERS AND FIXTURES	70-R4		(40)	76,403,298.64	49,143,732	57,820,886	1,289,330	1.69	44.8
355.00	POLES AND FIXTURES	58-R2		(75)	228,799,845.74	72,993,220	327,406,510	6,711,919	2.93	48.8
356.00	OVERHEAD CONDUCTORS AND DEVICES	65-R3		(75)	178,542,714.22	114,190,318	198,259,432	4,527,061	2.54	43.8
357.00	UNDERGROUND CONDUIT	50-R4		0	448,760.26	229,646	219,114	7,645	1.70	28.7
358.00	UNDERGROUND CONDUCTORS AND DEVICES	40-R3		0	1,173,303.32	966,623	206,680	8,740	0.74	23.6
	TOTAL TRANSMISSION PLANT				804,608,304.85	339,259,584	847,439,437	18,130,691		

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

			NET		воок		CALCULATED	ANNUAL	COMPOSITE
	ACCOUNT	SURVIVOR CURVE	SALVAGE PERCENT	ORIGINAL COST	DEPRECIATION RESERVE	FUTURE ACCRUALS	ACCRUAL AMOUNT	ACCRUAL RATE	REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	DISTRIBUTION PLANT								
360.10	LAND AND LAND RIGHTS	70-R4	0	2,168,929.31	1,458,105	710,824	13,823	0.64	51.4
361.00	STRUCTURES AND IMPROVEMENTS	60-R2.5	(25)	10,718,796.73	2,256,794	11,141,702	230,057	2.15	48.4
362.00	STATION EQUIPMENT	54-R2	(20)	173,228,756.89	47,843,031	160,031,477	3,967,466	2.29	40.3
364.00	POLES, TOWERS, AND FIXTURES	50-R1.5	(50)	354,797,240.32	152,141,111	380,054,749	9,477,978	2.67	40.1
365.00	OVERHEAD CONDUCTORS AND DEVICES	47-R1	(30)	337,937,644.27	119,403,224	319,915,714	8,351,144	2.47	38.3
366.00 367.00	UNDERGROUND CONDUIT UNDERGROUND CONDUCTORS AND DEVICES	50-R4 48-R2	0 (20)	2,050,521.69 181,393,660.79	832,564 40,586,062	1,217,958 177,086,331	47,571 4,406,186	2.32 2.43	25.6 40.2
368.00	LINE TRANSFORMERS	46-R2	(5)	308,054,000.11	141,176,694	182,280,006	5,515,604	1.79	33.0
369.00	SERVICES	48-R1	(25)	94,875,368.05	61,837,515	56,756,695	1,549,728	1.63	36.6
370.00	METERS	28-L1	* 0	66,212,808.46	56,280,887	9,931,921	2,326,567	3.51	4.3
370.10	METERING EQUIPMENT	28-L1	0	10,416,674.08	3,863,114	6,553,560	447,268	4.29	14.7
	METERS - RESERVE AMORTIZATION				(22,208,790)	22,208,790	***		
370.20	METERS - AMS	15-S2.5	0	698,893.34	4,284	694,609	47,904	6.85	14.5
371.00 373.00	INSTALLATIONS ON CUSTOMERS' PREMISES STREET LIGHTING AND SIGNAL SYSTEMS	28-O1 28-L0.5	(10) (10)	17,054,091.74 95,997,822.30	17,012,710 20,947,022	1,746,791 84,650,583	90,485 3,837,892	0.53 4.00	19.3 22.1
0,0.00	TOTAL DISTRIBUTION PLANT	20 20.0	(10)	1,655,605,208.08	643,434,327	1,414,981,710	40,309,673		
				,,		, , , , ,	.,,		
	GENERAL PLANT								
390.10	STRUCTURES AND IMPROVEMENTS - TO OWNED PROPERTY	50-S0	(15)	56,676,361.14	11,157,166	54,020,649	1,378,746	2.43	39.2
390.20	STRUCTURES AND IMPROVEMENTS - LEASEHOLDS	33-R1.5	(10)	528,658.33	445,844	135,680	7,551	1.43	18.0
391.10	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	9,997,759.47	5,677,517	4,320,242	435,890	4.36	9.9
391.20	NON PC COMPUTER EQUIPMENT	5-SQ	0	26,955,602.79	14,275,399	12,680,204	3,152,434	11.69	4.0
391.31 392.00	PERSONAL COMPUTERS	4-SQ	0	7,487,177.86	3,350,909	4,136,269	1,873,226	25.02	2.2
392.00	TRANSPORTATION EQUIPMENT - CARS AND LIGHT TRUCKS TRANSPORTATION EQUIPMENT - HEAVY TRUCKS AND OTHER	14-S2 16-L2.5	0	1,080,256.71 4,496,087.64	850,491 2,506,216	229,766 1,989,872	21,335 143,633	1.97 3.19	10.8 13.9
393.00	STORES EQUIPMENT	25-SQ	0	1,504,425.91	311,738	1,192,688	66,208	4.40	18.0
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	Ō	12,146,898.05	3,584,231	8,562,667	488,036	4.02	17.5
396.00	POWER OPERATED EQUIPMENT	16-L5	0	2,293,200.28	733,922	1,559,278	129,523	5.65	12.0
397.00	COMMUNICATION EQUIPMENT - MICROWAVE, FIBER AND OTHER	18-L3	0	25,857,151.87	8,888,012	16,969,140	1,268,220	4.90	13.4
397.10	COMMUNICATION EQUIPMENT - RADIO AND TELEPHONE	10-SQ	0	20,009,653.11	7,845,508	12,164,145	2,169,315	10.84	5.6
397.20	COMMUNICATION EQUIPMENT - DSM	10-SQ	0	5,875,508.03	497,906	5,377,602	827,323	14.08	6.5
	TOTAL GENERAL PLANT			174,908,741.19	60,124,859	123,338,202	11,961,440		
	TOTAL DEPRECIABLE PLANT			8,449,146,032.44	2,821,716,576	6,735,871,350	281,769,376		
	NONDEPRECIABLE PLANT								
301.00	ORGANIZATION			44,455.58					
310.20 340.20	LAND LAND			22,958,202.42 135,099.02					
350.20	LAND			2,360,270.07					
360.20	LAND			5,673,927.95					
389.20	LAND			2,810,081.60					
	TOTAL NONDEPRECIABLE PLANT			33,982,036.64					
	TOTAL ELECTRIC PLANT			8,483,128,069.08	2,821,716,576	6,735,871,350	281,769,376		

NOTE: Accrual rates for the Brown Solar Assets when placed in service June 2016 wil be as follows:

Account Rate 34100 4.24% 34400 4.61% 34500 4.36% 34600 4.25%

Accrual rates for the Electric Vehicle Charging Station Assets when placed in service June 2016 wil be as follows:

Account

37100

^{*} LIFE SPAN PROCEDURE IS USED. CURVE SHOWN IS INTERIM SURVIVOR CURVE
** TERMINAL NET SALVAGE FACTOR WHICH IS BASED ON VINTAGE AND FUTURE COSTS
*** RESERVE AMOUNT TO BE RECOVERED AT END OF REPLACEMENT PROGRAM

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2015

		NET		воок		CALCULATE	D ANNUAL	COMPOSITE
	SURVIVOR	SALVAGE	ORIGINAL	DEPRECIATION	FUTURE	ACCRUAL	ACCRUAL	REMAINING
ACCOUNT	CURVE	PERCENT	COST	RESERVE	ACCRUALS	AMOUNT	RATE	LIFE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 21

Responding Witness: John K. Wolfe

- Q.2-21. Refer to the response to AG 1-230. Provide the storm damage expense for the base year and the test year.
- A.2-21. The storm damage expense for the base year is \$3,769,461 and the test year is \$4,073,835.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 22

Responding Witness: John P. Malloy

Q.2-22. Provide the number of MV90 meters in use, by rate schedule, for the most recent 12-month period available. Also provide the total number of meters (all types) by rate schedule for the same 12-month period.

A.2-22.

Count of MV-90 Billable Meters								
Rate	KU	LGE						
Special Contracts		7						
FLS	1							
GS 3Ø	2	9						
PS Primary	7	4						
PS Secondary	11	76						
RTOD E	2	2						
RTS	29	21						
TOD Primary	280	142						
TOD Secondary	669	444						
Total	1,001	705						

For all non-residential meters, the counts provided are as of September 2016, which are the most recent counts readily available. Residential meter counts are as of February 2017, and should be comparable to the numbers of residential meters in service as of September 2016.

Count of Meters		
Rate	KU	LG&E
Special Contracts		7
AES 1Ø	341	-
AES 3Ø	265	-
FLS	1	-
GS 1Ø	69,720	30,164
GS 3Ø	19,803	17,383
PS Primary	238	84
PS Secondary	4,722	3,126
RS	440,695	368,764
RTS	31	22
TOD Primary	285	143
TOD Secondary	663	457

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 23

Responding Witness: John P. Malloy

- Q.2-23. The Companies have indicated that they do not plan to replace MV90 meters with AMS. Are there other meters in use for rate schedules TOD-Secondary, TOT-Primary, RTS, or FLS that will not be replaced by AMS. If so, identify, by rate schedule, the number of such meters (other than MV90) that will not be replaced by AMS.
- A.2-23. No. The Companies plan on exchanging all of the electric meters excluding the MV-90 billable meters with AMS meters.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 24

Responding Witness: William S. Seelye

- Q.2-24. With regard to TAB "Meters" in the Company's class cost of service studies, the average cost of a secondary voltage residential meter is shown to be \$65. In the Company's 2014 case, the corresponding meter cost is shown to be \$63. Please confirm that the average residential meter cost for the June 30, 2018 ending test year is \$65 and that it includes the impact of AMS replacements. If the Company cannot confirm this, please explain why the test year meter costs, including AMS replacements, has not been used in the calculation of the meter allocation factors.
- A.2-24. The calculation of meter costs included in the Meters tab of the cost of service study, and as used in the development of the allocation factor for meters in the cost of service study, is based on historical equipment and labor costs for meter installations during the months prior to the Company's application in this proceeding. It is assumed that the relative relationship between rate classes will remain the same as the historical cost relationship.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 25

Responding Witness: Robert M. Conroy

Q.2-25. Referring to KU's response to KIUC 1-49(c), Attachment 1:

- a. Did KU conduct similar rate comparisons for CSR customers that did not request such comparisons?
- b. If the answer to the preceding request is yes, please provide such comparisons in native format with working formulas and all links intact.

A.2-25.

- a. No, KU did not conduct similar rate comparisons for CSR customers that did not request such comparisons.
- b. Not applicable.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 26

Responding Witness: David S. Sinclair

Q.2-26. Referring to KU's responses to KIUC 1-56(c)-(e):

- a. Please explain in detail whether CSR load subject to a 10-minute notice of interruption would qualify as operating reserve as defined in the response to KIUC 1-56(c).
- b. Explain in detail how KU treats load subject to the interruption provisions of Rate FLS (System Contingencies and Industry Performance Criteria section) in meeting system operating reserve requirements.

A.2-26.

- a. As indicated in the response to KIUC 1-56(c), for curtailable load to qualify as operating reserves, the curtailable load must be fully removable from system load within a 15 minute period. Therefore, the load must first be in place on the system (the Company cannot be assured that the curtailable customer has load to reduce) and second, must be removable within a 15 minute period. Thus, if a CSR load was subject to a 10-minute notice, the load must first be occurring on the system and second must be removed within 5 minutes after the 10-minute notice period expired. Furthermore, for interruptible load to qualify as operating reserve, no restrictions on the number or frequency of requests could be in place.
- b. KU does not consider FLS load in meeting its operating reserve requirements, which consist of spinning reserves and non-spinning (supplemental) reserves. Both spinning and supplemental reserves must be available to serve load within a 15 minute period. For curtailable load to qualify as operating reserves, the curtailable load must be fully removable from system load within a 15 minute period. The execution of a FLS interruption requires a 5 minute notice, can last no longer than ten minutes, and may not be fully removable from the system. Therefore, FLS does not qualify as an operating reserve and is not considered when determining the need for operating reserve capacity.

CASE NO. 2016-00370

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 27

Responding Witness: David S. Sinclair

Q.2-27. Referring to KU's response to KIUC 1-63(b):

- a. Please describe and explain in detail the justification for the August 2010 change in Rider CSR that restricted interruption requests to periods in which all generating units were dispatched.
- b. Please identify each occasion and the exigent circumstances under which KU would have invoked a physical curtailment of CSR load since January 2014 to the present if the interruption restriction noted in the preceding request had not been in place.

A.2-27.

a. Prior to August 2010, the CSR tariff effective February 6, 2009 allowed for curtailments for any reason for a limited number of hours annually.

Effective February 6, 2009, the CSR1 tariff stated:

"Customer may, at Customer's option, contract with Company to curtail service upon notification by Company. Requests for curtailment shall not exceed two hundred (200) hours per year nor shall any single request for curtailment be for less than thirty (30) minutes or for more than fourteen (14) hours per calendar day, with no more than two (2) requests for curtailment per calendar day within these parameters. Company may request or cancel a curtailment at any time during an hour, but shall give no less than twenty (20) minutes notice when either requesting or canceling a curtailment."

Effective August 1, 2010, the CSR10 tariff stated:

"Company may request at its sole discretion up to 100 hours of physical curtailment per year without a buy-through option during system reliability events. For the purposes of this rider, a system reliability event

is any condition or occurrence: 1) that impairs KU and LG&E's ability to maintain service to contractually committed system load; 2) where KU and LG&E's ability to meet their compliance obligations with NERC reliability standards cannot otherwise be achieved; or 3) that KU and LG&E reasonably anticipate will last more than six hours and could require KU and LG&E to call upon automatic reserve sharing ("ARS") at some point during the event."

This new language was agreed to as part of the settlement in the June 7, 2010 Stipulation and Recommendation (pages 111 and 114) between the Companies and several parties (including the Kentucky Industrial Utility Customers, Inc.) in the rate proceedings in Case No. 2009-00548. The Stipulation and Recommendation can be found at:

http://psc.ky.gov/PSCSCF/2009%20cases/2009-00548/20100608 KU and LGE Stipulation and Recommendation.PDF.

Note, the new language did not explicitly restrict "interruption requests to periods in which all generating units were dispatched" although as a practical matter, the circumstances described in the tariff would likely result in all available units being committed.

b. See the response to KIUC 1-63b. As stated, the Company is not able to identify the specific hours for additional physical curtailment. Also see the Company's response to KIUC 1-62.