## **COMMONWEALTH OF KENTUCKY**

## **BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

AN EXAMINATION OF THE APPLICATION OF	)
THE FUEL ADJUSTMENT CLAUSE OF	) CASE NO.
KENTUCKY UTILITIES COMPANY FROM	) 2017-00003
NOVEMBER 1, 2014 THROUGH OCTOBER 31, 2016	)

## RESPONSE OF KENTUCKY UTILITIES COMPANY TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION IN APPENDIX B OF COMMISSION'S ORDER DATED FEBRUARY 6, 2017

FILED: February 20, 2017

COMMONWEALTH OF KENTUCKY ) ) SS: COUNTY OF JEFFERSON )

The undersigned, **Delbert Billiter**, being duly sworn, deposes and says that he is Manager — Fuels Risk Management for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

ellat Billita

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

and State, this 17th day of Sebulary 2017.

Judy Schooler (SEAL)

Notary Public

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

COMMONWEALTH OF KENTUCKY ) ) SS: COUNTY OF JEFFERSON )

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

Derek Rahn

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

and State, this 1644 day of <u>Achuny</u> 2017.

July Schooler (SEAL)

Notary Public

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

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

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

aunder Eileen L. Saunders

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

and State, this 17th day of Sebuary 2017.

Judy Schooler (SEAL)

Notary Public

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

COMMONWEALTH OF KENTUCKY ) ) SS: COUNTY OF JEFFERSON )

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

Churter & Achur

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

and State, this 17th day of <u>Sebilary</u> 2017.

Judyschooler (SEAL)

Notary Public

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, Stuart A. Wilson, being duly sworn, deposes and says that he is Director - Energy Planning, Analysis and Forecast for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

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

and State, this 17th day of <u>febuary</u> 2017.

Julideytchoole (SEAL)

Notary Public

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

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

Case No. 2017-00003

## **Question No. 1**

#### Witness: Derek Rahn

- Q-1. If a change in the base fuel cost is proposed, state the month to be used as the base period (b). If the base period results in a fuel cost other than one representative of current costs as prescribed by 807 KAR 5:056, Section 1(2), explain why this base period was selected. If no change is proposed, include an explanation of the reason(s) KU believes the current base period fuel cost should remain unchanged.
- A-1. After reviewing actual FAC costs for the base period November 2014 through October 2016, Kentucky Utilities ("KU") recommends that the per unit fuel cost for August 2015 be used as the base period. The attached table shows that the per unit fuel cost for August 2015 was \$0.02609/kWh. KU estimates that the average per unit fuel cost for the calendar year 2017 will be \$0.02607/kWh and the average per unit fuel cost for the calendar year 2018 will be \$0.02577/kWh. The per unit fuel cost for August 2015 of \$0.02609/kWh approximates the weighted average of the projected fuel estimates for the two-year period of \$0.02592/kWh. Since no actual per unit fuel cost during the two-year period under review equals the projected per unit fuel cost, KU recommends the use of the actual per unit fuel cost for August 2015 because this is the actual cost from the two-year expense period ending October 2016 closest to the weighted average projected cost for the next two-year period. This methodology is consistent with what has been used and accepted in previous two year cases, and therefore KU believes August 2015 is the appropriate month to use as the base FAC for the next two-year period.

KU determined the projected F(m) / S(m) results using:

- projected coal, oil, and natural gas expenses,
- projected purchased power expenses, off-system sales revenues and
- all associated generated, purchased and sold kilowatt-hours for the period.

## Retail Fuel Adjustment Clause Fuel Cost per kWh For the Expense Months Ending October 31, 2016

(1)	(2)	(3)	(4)	(5)
Expense Month	Expense Month	FAC Base \$/kWh	Billing Month	Billing Month
	\$/kWh			FAC Factor Col. 2 - 3
Nov-14	\$ 0.02916	\$ 0.02892	Jan-15	\$ 0.00024
Dec-14	\$ 0.03011	\$ 0.02892	Feb-15	\$ 0.00119
Jan-15	\$ 0.02872	\$ 0.02892	Mar-15	\$ (0.00020)
Feb-15	\$ 0.02899	\$ 0.02892	Apr-15	\$ 0.00007
Mar-15	\$ 0.02813	\$ 0.02892	May-15	\$ (0.00079)
Apr-15	\$ 0.02879	\$ 0.02892	Jun-15	\$ (0.00013)
May-15	\$ 0.02828	\$ 0.02892	Jul-15	\$ (0.00064)
Jun-15	\$ 0.02659	\$ 0.02892	Aug-15	\$ (0.00233)
Jul-15	\$ 0.02618	\$ 0.02892	Sep-15	\$ (0.00274)
Aug-15	\$ 0.02609	\$ 0.02892	Oct-15	\$ (0.00283)
Sep-15	\$ 0.02527	\$ 0.02892	Nov-15	\$ (0.00365)
Oct-15	\$ 0.02224	\$ 0.02892	Dec-15	\$ (0.00668)
Nov-15	\$ 0.02310	\$ 0.02892	Jan-16	\$ (0.00582)
Dec-15	\$ 0.02276	\$ 0.02892	Feb-16	\$ (0.00616)
Jan-16	\$ 0.02705	\$ 0.02892	Mar-16	\$ (0.00187)
Feb-16	\$ 0.02474	\$ 0.02892	Apr-16	\$ (0.00418)
Mar-16	\$ 0.02212	\$ 0.02892	May-16	\$ (0.00680)
Apr-16	\$ 0.02289	\$ 0.02892	Jun-16	\$ (0.00603)
May-16	\$ 0.02249	\$ 0.02892	Jul-16	\$ (0.00643)
Jun-16	\$ 0.02545	\$ 0.02892	Aug-16	\$ (0.00347)
Jul-16	\$ 0.02640	\$ 0.02892	Sep-16	\$ (0.00252)
Aug-16	\$ 0.02469	\$ 0.02892	Oct-16	\$ (0.00423)
Sep-16	\$ 0.02428	\$ 0.02892	Nov-16	\$ (0.00464)
Oct-16	\$ 0.02282	\$ 0.02892	Dec-16	\$ (0.00610)

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

## **Question No. 2**

#### Witness: Derek Rahn

- Q-2. Provide a calculation of the fossil fuel costs F(b) that KU proposes to use to calculate the base period fuel cost. This calculation shall show each component of F(b) as defined by 807 KAR 5:056. Explain why the fuel cost in the selected base period is representative of the level of fuel cost currently being experienced by KU.
- A-2. Attached is a copy of the Fuel Cost Schedule (Form A, Page 2) for the base period of August 2015, which shows the component of the proposed F(b) as defined by 807 KAR 5:056.

As explained in the response to Question No. 1, KU reviewed the per-unit fuel cost for each month during the November 2014 through October 2016 base period and compared those values to the projected average per unit fuel cost for the next two-year period. As a result, F(b) and S(b) were considered together in determining the appropriate month to use as a new base fuel component.

#### Form A

Page 2 of 6

# KENTUCKY UTILITIES COMPANY FUEL COST SCHEDULE

Expense Month: August 2015

<ul> <li>(A) Company Generation         <ul> <li>Coal Burned</li> <li>Oil Burned</li> <li>Gas Burned</li> <li>Fuel (assigned cost during Forced Outage)</li> <li>Fuel (substitute cost for Forced Outage)</li> <li>SUB-TOTAL</li> </ul> </li> </ul>	(+) (+) (+) (+) (-)	\$	\$39,710,614 388,318 9,400,953 3,595,550 3,697,563 49,397,872	(1) (1)
(B) Purchases Net energy cost - economy purchases Identifiable fuel cost - other purchases Identifiable fuel cost (substitute for Forced Outage) Less Purchases above Highest Cost Units Internal Economy Internal Replacement SUB-TOTAL	(+) (+) (-) (-) (+) (+)	\$	698,225 - 3,534 - 564,655 118,612 1,377,958	
(C) Inter-System Sales Including Interchange-out Internal Economy Internal Replacement Dollars Assigned to Inter-System Sales Losses SUB-TOTAL	(+) (+) (+) (+)	\$	640,202 2,787,034 67,434 3,201 3,497,871	
(D) <u>Over or (Under) Rec</u> overy From Page 5, Line 13 TOTAL FUEL RECOVERY (A+B-C-D) =	-	\$ \$	38,689 47,239,270	

Note: (1) Reflects exclusion of IMEA/IMPA portion of Trimble County Unit 2 fuel cost with recognition of 0.5% transmission losses per Commission's Order in Case No. 2012-00552.

Coal burned =	\$11,201
Oil burned =	\$61

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

## **Question No. 3**

#### Witness: Derek Rahn

- Q-3. Provide a schedule showing each component of sales as defined by 807 KAR 5:056 in the selected base period (b). Explain why KU believes that the sales in the selected base period (b) are representative of the level of kWh sales that KU will derive from the level of fuel cost incurred during the selected base period (b).
- A-3. Attached is a copy of the Sales Schedule (Form A, Page 3) for the base period of August 2015, which shows the component of the proposed S(b) as defined by 807 KAR 5:056.

As explained in the response to Question No. 1, KU reviewed the per-unit fuel cost for each month during the November 2014 through October 2016 base period and compared those values to the projected average per unit fuel cost for the next two-year period. As a result, F(b) and S(b) were considered together in determining the appropriate month to use as a new base fuel component.

Attachment to Response to Question No. 3 Page 1 of 1 Rahn

> Form A Page 3 of 6

# KENTUCKY UTILITIES COMPANY

## SALES SCHEDULE (KWH)

Expense Month: August 2015

(A)	Generation (Net)	(+)	1,975,077,000
	Purchases including interchange-in	(+)	67,493,000
	Internal Economy	(+)	20,879,000
	Internal Replacement	(+)	4,663,000
	SUB-TOTAL		2,068,112,000

(B)	Inter-system Sales including interchange-out	(+)	21,930,000
	Internal Economy	(+)	112,826,000
	Internal Replacement	(+)	2,290,000
	(*) System Losses	(+)	120,624,473
	SUB-TOTAL		257,670,473

TOTAL SALES (A-B)

1,810,441,527

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

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

Case No. 2017-00003

## **Question No. 4**

## Witness: Derek Rahn

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

A-4.

Current Base \$0.02892/kWh

Proposed Base

Decrease in Base Rates \$0.00283/kWh

\$0.02609/kWh

## **Response to Commission Staff's First Request for Information** in Appendix B of Commission's Order Dated February 6, 2017

## Case No. 2017-00003

#### **Question No. 5**

## Witness: Delbert Billiter / Charles R. Schram

- Provide KU's most recent projected fuel requirements for the years 2017 and 2018 in tons Q-5. for coal, MMBtu for natural gas, and dollars.
- A-5. Coal purchases in 2017 Business Plan

2017 Projected Coal Purchases	<u>Tons</u> 7,364,758	<u>Dollars</u> \$357,970,250
2018 Projected Coal Purchases	7,658,077	\$356,417,194

Natural Gas purchases in 2017 Business Plan

2017 Projected Gas Purchases	<u>MMBtu</u> 36,818,772	<u>Dollars</u> \$117,329,487
2018 Projected Gas Purchases	39,158,035	\$125,593,448

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

Case No. 2017-00003

#### **Question No. 6**

## Witness: Derek Rahn

Q-6. Provide KU's most recent sales projections for the years 2017 and 2018 in kWh and dollars.

A-6. KU's most recent sales projections for 2017 and 2018 are:

2017 Ultimate Consumers	Sales (kWh) 18,313,873,263	Dollars \$1,628,666,948
2018 Ultimate Consumers	18,332,940,828	\$1,700,485,072

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

#### **Question No. 7**

#### Witness: Derek Rahn

- Q-7. Provide separately the amounts of power purchases used in the calculation of sales provided in response to Item 3.
- A-7. Below is the data from the Purchased Power Transaction Schedule for August 2015, which is used in the calculation of Sales as defined by 807 KAR 5:056 and shown in the response to Question No. 3.

COMPANY	kWh
Illinois Municipal Electric Agency	154,000
Indiana Municipal Power Agency	96,000
Energy Imbalance	327,000
PJM Interconnection Association	213,000
Tennessee Valley Authority	111,000
SQF Tariff Purchase Power	14,422
LQF Tariff Purchase Power	1,200
Louisville Gas and Electric Company	25,542,000
Ohio Valley Electric Corporation	22,927,000
TOTAL PURCHASES	49,385,622

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

## Case No. 2017-00003

#### **Question No. 8**

#### Witness: Derek Rahn

- Q-8. Provide separately the amounts of intersystem power sales used in the calculation of sales provided in response to Item 3.
- A-8. Below is the data from the Sales Power Transaction Schedule for August 2015, which is used in the calculation of Sales as defined by 807 KAR 5:056 and shown in the response to Question No. 3.

COMPANY	kWh			
American Electric Power Service Corp.	915,000			
Cargill-Alliant, LLC	3,346,000			
ETC Endure	205,000			
Exelon Generation Company, LLC	1,177,000			
Illinois Municipal Electric Agency	236,000			
Indiana Municipal Power Agency	693,000			
Energy Imbalance	556,000			
Midwest Independent Transmission System Operator, Inc.	3,124,000			
Owensboro Municipal Power Agency	841,000			
PJM Interconnection Association	5,897,000			
The Energy Authority	351,000			
Tenaska Power Services Co.	88,000			
Tennessee Valley Authority	3,502,000			
Westar Energy, Inc.	999,000			
Louisville Gas and Electric Company	115,116,000			
TOTAL SALES	137,046,000			

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

#### **Question No. 9**

## Witness: Stuart A. Wilson

- Q-9. Provide the planned maintenance schedule for each of KU's generating units for the years 2017 and 2018.
- A-9. The information requested is being provided pursuant to a Petition for Confidential Treatment. A redacted version of the requested information is attached to this response.

# CONFIDENTIAL INFORMATION REDACTED

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								*	*	*		*											
MAINT	Br1	Br2	Br3	Gh1	Gh2	Gh3	Gh4	TC2	CR7	Br5	Br6	Br7	Br8	Br9	Br10		PR13	TC5	TC6	TC7	TC8	TC9	TC10
WEEK	107	167	411	475	484	482	476	560	691	120	157	157	118	118	118	118	161	169	169	169	169	169	169
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2017 KU Weekly Maintenance Detail

Notes: \* Jointly owned units between LG&E/KU

# CONFIDENTIAL INFORMATION REDACTED

								*	*	*	*	*					*	*	*	*	*	*	*
MAINT	Br1	Br2	Br3	Gh1	Gh2	Gh3	Gh4	TC2	CR7	Br5	Br6	Br7	Br8	Br9	Br10	Br11	PR13	TC5	TC6	TC7	тс8	тС9	TC10
WEEK	107	167	411	475	484	482	476	560	691	120	157	157	118	118	118	118	161	169	169	169	169	169	169
1/1	107	107	411	475	404	402	470	500	091	120	157	157	110	110	110	110	101	105	105	103	105	109	103
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2018 KU Weekly Maintenance Detail

Notes:

\* Jointly owned units between LG&E/KU

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

Case No. 2017-00003

## **Question No. 10**

#### Witness: Stuart A. Wilson

Q-10. For the years ending October 31, 2015 and October 31, 2016, provide:

- a. Maximum annual system demand; and
- b. Average annual demand.
- A-10. a. Maximum annual net system demand:

<u>Year Ending</u>	Peak Demand (MW)
October 31, 2015	5,112
October 31, 2016	4,415

b. Average annual system demand:

<u>Year Ending</u>	Peak Demand (MW)
October 31, 2015	2,611
October 31, 2016	2,500

\*Average annual demand is calculated as the year ending energy divided by the hours per year.

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

## Case No. 2017-00003

## Question No. 11

## Witness: Stuart A. Wilson

- Q-11. List all firm power commitments for KU from May 1, 2016 through October 31, 2016, and for the years 2017 and 2018 for (a) purchases and (b) sales. This list shall identify the other party (buyer or seller), the amount of commitment in MW, and the purpose of the commitment (e.g., peaking, emergency).
- A-11. a. Firm Purchases

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

	Companies'	KU Portion	
Utility	Amt (MW)	(MW)	Purpose
OVEC (May 2016)	~ 98	~ 30	Baseload
OVEC (Jun 2016)	~ 154	~ 47	Baseload
OVEC (Jul 2016)	~ 152	~ 47	Baseload
OVEC (Aug 2016)	~ 152	~ 47	Baseload
OVEC (Sep 2016)	~ 153	~ 47	Baseload
OVEC (Oct 2016)	~ 123	~ 38	Baseload
(			
OVEC (Jan 2017)	~ 158	~ 49	Baseload
OVEC (Feb 2017)	~ 158	~ 49	Baseload
OVEC (Mar 2017)	~ 107	~ 33	Baseload
OVEC (Apr 2017)	~ 88	~ 27	Baseload
OVEC (May 2017)	~ 124	~ 38	Baseload
OVEC (Jun 2017)	~ 154	~ 47	Baseload
OVEC (Jul 2017)	~ 152	~ 47	Baseload
OVEC (Aug 2017)	~ 152	~ 47	Baseload
OVEC (Sep 2017)	~ 150	~ 46	Baseload
OVEC (Oct 2017)	~ 121	~ 37	Baseload
OVEC (Nov 2017)	~ 142	~ 44	Baseload
OVEC (Dec 2017)	~ 158	~ 49	Baseload
OVEC (Jan 2018)	~ 158	~ 49	Baseload
OVEC (Feb 2018)	~ 154	~ 47	Baseload
OVEC (Mar 2018)	~ 136	~ 42	Baseload
OVEC (Apr 2018)	~ 95	~ 29	Baseload
OVEC (May 2018)	~ 127	~ 39	Baseload
OVEC (Jun 2018)	~ 154	~ 47	Baseload
OVEC (Jul 2018)	~ 152	~ 47	Baseload
OVEC (Aug 2018)	~ 152	~ 47	Baseload
OVEC (Sep 2018)	~ 143	~ 44	Baseload
OVEC (Oct 2018)	~ 84	~ 26	Baseload
OVEC (Nov 2018)	~ 142	~ 44	Baseload
OVEC (Dec 2018)	~ 158	~ 49	Baseload

b. Firm Sales - None.

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

## Case No. 2017-00003

## **Question No. 12**

## Witness: Derek Rahn

Q-12. Provide a monthly billing summary for all sales to all electric utilities for the period May 1, 2016 through October 31, 2016.

A-12. See attached.



					Billing Componen	ts		
		Type of			Fuel		Other	Total
<u>Company</u>		Transaction	KWH	Demand(\$)	Charges(\$)		Charges(\$)	Charges(\$)
9-1								
<u>Sales</u>	~ . ~ ~	_						
CARGILL- ALLIANT, LLC	CARG	Economy	649,000		\$ 17,662.96	\$	6,880.73	\$ 24,543.69
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	107,000		\$ 5,689.54	\$	2,216.41	\$ 7,905.95
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	361,000		\$ 14,532.13	\$	5,965.48	\$ 20,497.61
ENERGY IMBALANCE	IMBL	Economy	561,000		\$ 14,100.68	\$	5,493.02	\$ 19,593.70
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR	, MISO	Economy	647,000		\$ 11,174.20	\$	4,370.74	\$ 15,544.94
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	1,855,000		\$ 43,341.06	\$	16,883.82	\$ 60,224.88
TENNESSEE VALLEY AUTHORITY	TVA	Economy	2,249,000		\$ 60,781.39	\$	23,677.79	\$ 84,459.18
WESTAR ENERGY, INC.	WSTR	Economy	61,000		\$ 1,453.15	\$	566.09	\$ 2,019.24
LOUISVILLE GAS & ELECTRIC	LGE	Economy	63,477,000		\$ 1,487,783.40	\$	396.88	\$ 1,488,180.28
Total Sales			69,967,000	\$ -	\$ 1,656,518.51	\$	66,450.96	\$ 1,722,969.47



			Billing Components							
		Type of				Fuel		Other		Total
<u>Company</u>		Transaction	KWH	Demand(\$)		Charges(\$)		Charges(\$)		Charges(\$)
Sales										
CARGILL- ALLIANT, LLC	CARG	Economy	802,000		\$	24,326.21	\$	8,094.08	\$	32,420.29
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	60,000		\$	1,869.33	\$	621.98	\$	2,491.31
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	133,000		\$	5,042.91	\$	1,677.94	\$	6,720.85
ENERGY IMBALANCE	IMBL	Economy	316,000		\$	5,712.64	\$	1,900.77	\$	7,613.41
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR	MISO	Economy	1,696,000		\$	43,872.51	\$	14,597.31	\$	58,469.82
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	3,810,000		\$	118,900.22	\$	39,561.80	\$	158,462.02
THE ENERGY AUTHORITY	TEA	Economy	16,000		\$	481.17	\$	160.10	\$	641.27
TENASKA POWER SERVICES CO.	TPS	Economy	62,000		\$	1,924.65	\$	640.39	\$	2,565.04
TENNESSEE VALLEY AUTHORITY	TVA	Economy	877,000		\$	30,060.26	\$	10,001.99	\$	40,062.25
WESTAR ENERGY, INC.	WSTR	Economy	519,000		\$	15,510.38	\$	5,160.79	\$	20,671.17
LOUISVILLE GAS & ELECTRIC	LGE	Economy	48,822,000		\$	1,293,753.79	\$	4,126.01	\$	1,297,879.80
Total Sales			57,113,000	\$ -	\$	1,541,454.07	\$	86,543.16	\$	1,627,997.23



#### **Power Transaction Schedule**

					Billing Componen	ts		
		Type of			Fuel		Other	Total
<u>Company</u>		Transaction	KWH	Demand(\$)	Charges(\$)		Charges(\$)	Charges(\$)
Sales								
CARGILL- ALLIANT, LLC	CARG	Economy	1,363,000		\$ 39,032.05	\$	17,819.86	\$ 56,851.91
ETC ENDURE	ETC	Economy	73,000		\$ 2,022.36	\$	923.30	\$ 2,945.66
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	121,000		\$ 8,463.39	\$	3,863.92	\$ 12,327.31
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	168,000		\$ 11,586.90	\$	5,289.93	\$ 16,876.83
ENERGY IMBALANCE	IMBL	Economy	298,000		\$ 8,356.13	\$	3,814.95	\$ 12,171.08
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR	MISO	Economy	4,584,000		\$ 131,096.88	\$	59,782.07	\$ 190,878.95
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	5,817,000		\$ 170,535.87	\$	77,857.19	\$ 248,393.06
THE ENERGY AUTHORITY	TEA	Economy	461,000		\$ 13,399.53	\$	6,117.48	\$ 19,517.01
TENNESSEE VALLEY AUTHORITY	TVA	Economy	666,000		\$ 19,214.34	\$	8,772.20	\$ 27,986.54
WESTAR ENERGY, INC.	WSTR	Economy	705,000		\$ 20,838.33	\$	9,513.61	\$ 30,351.94
LOUISVILLE GAS & ELECTRIC	LGE	Economy	46,629,000		\$ 1,170,884.96	\$	7,662.02	\$ 1,178,546.98
Total Sales			60,885,000	\$ -	\$ 1,595,430.74	\$	201,416.53	\$ 1,796,847.27

Energy Imbalance is used to supply energy for mismatch between scheduled delivery and actual loads that have occurred over an hour.



					Billing Componen	ts		
		Type of			Fuel		Other	Total
<u>Company</u>		Transaction	KWH	Demand(\$)	Charges(\$)		Charges(\$)	Charges(\$)
Sales								
CARGILL- ALLIANT, LLC	CARG	Economy	481,000		\$ 14,986.63	\$	7,073.15	\$ 22,059.78
EXELON GENERATION COMPANY, LLC	EXEL	Economy	66,000		\$ 2,906.73	\$	1,371.87	\$ 4,278.60
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	217,000		\$ 1,665.44	\$	1,210.43	\$ 2,875.87
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	321,000		\$ 4,207.04	\$	2,814.40	\$ 7,021.44
ENERGY IMBALANCE	IMBL	Economy	525,000		\$ 13,706.67	\$	6,469.05	\$ 20,175.72
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR	MISO	Economy	4,052,000		\$ 110,357.98	\$	52,183.91	\$ 162,541.89
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	9,142,000		\$ 258,543.64	\$	120,672.53	\$ 379,216.17
THE ENERGY AUTHORITY	TEA	Economy	361,000		\$ 9,774.28	\$	4,613.09	\$ 14,387.37
TENNESSEE VALLEY AUTHORITY	TVA	Economy	1,711,000		\$ 49,549.50	\$	23,385.58	\$ 72,935.08
WESTAR ENERGY, INC.	WSTR	Economy	221,000		\$ 5,775.79	\$	2,725.97	\$ 8,501.76
LOUISVILLE GAS & ELECTRIC	LGE	Economy	62,718,000		\$ 1,536,796.31	\$	1,713.13	\$ 1,538,509.44
Miscellaneous Adjustment					\$ 2,124.03	\$	236.00	\$ 2,360.03
Total Sales			79,815,000	\$-	\$ 2,010,394.04	\$	224,469.11	\$ 2,234,863.15



					Billing Componen	ts		
		Type of			Fuel		Other	Total
Company		Transaction	KWH	Demand(\$)	Charges(\$)		Charges(\$)	Charges(\$)
Sales								
CARGILL- ALLIANT, LLC	CARG	Economy	776,000		\$ 19,453.93	\$	12,865.52	\$ 32,319.45
EXELON GENERATION COMPANY, LLC	EXEL	Economy	279,000		\$ 8,932.14	\$	5,907.11	\$ 14,839.25
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	171,000		\$ 6,058.33	\$	4,006.57	\$ 10,064.90
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	1,175,000		\$ 29,073.19	\$	19,227.04	\$ 48,300.23
ENERGY IMBALANCE	IMBL	Economy	114,000		\$ 2,572.48	\$	1,701.27	\$ 4,273.75
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR	MISO	Economy	2,867,000		\$ 63,997.50	\$	42,323.86	\$ 106,321.36
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	6,217,000		\$ 199,032.80	\$	131,626.88	\$ 330,659.68
TENASKA POWER SERVICES CO.	TPS	Economy	193,000		\$ 5,894.55	\$	3,898.25	\$ 9,792.80
TENNESSEE VALLEY AUTHORITY	TVA	Economy	5,846,000		\$ 151,047.56	\$	99,892.65	\$ 250,940.21
WESTAR ENERGY, INC.	WSTR	Economy	1,515,000		\$ 43,039.29	\$	28,463.27	\$ 71,502.56
LOUISVILLE GAS & ELECTRIC	LGE	Economy	59,726,000		\$ 1,437,911.43	\$	1,606.24	\$ 1,439,517.67
Total Sales			78,879,000	\$ -	\$ 1,967,013.20	\$	351,518.66	\$ 2,318,531.86



			Billing Components							
		Type of				Fuel		Other		Total
<u>Company</u>		Transaction	KWH	Demand(\$)		Charges(\$)		Charges(\$)		Charges(\$)
Sales										
CARGILL- ALLIANT, LLC	CARG	Economy	2,925,000		\$	61,770.73	\$	51,460.43	\$	113,231.16
ETC ENDURE	ETC	Economy	559,000		\$	12,417.04	\$	10,344.49	\$	22,761.53
ILLINOIS MUNICIPAL ELECTRIC AGENCY	IMEA	Economy	70,000		\$	2,673.02	\$	2,226.86	\$	4,899.88
INDIANA MUNICIPAL POWER AGENCY	IMPA	Economy	214,000		\$	7,292.59	\$	6,075.36	\$	13,367.95
ENERGY IMBALANCE	IMBL	Economy	446,000		\$	8,632.84	\$	7,191.91	\$	15,824.75
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR	MISO	Economy	4,367,000		\$	79,600.88	\$	66,314.08	\$	145,914.96
PJM INTERCONNECTION ASSOCIATION	PJM	Economy	16,381,000		\$	406,543.05	\$	338,685.98	\$	745,229.03
TENNESSEE VALLEY AUTHORITY	TVA	Economy	923,000		\$	17,406.27	\$	14,500.94	\$	31,907.21
WESTAR ENERGY, INC.	WSTR	Economy	1,156,000		\$	27,088.58	\$	22,567.16	\$	49,655.74
LOUISVILLE GAS & ELECTRIC	LGE	Economy	122,935,000		\$	2,785,218.82	\$	1,967.86	\$	2,787,186.68
Total Sales			149,976,000	\$ -	\$	3,408,643.82	\$	521,335.07	\$	3,929,978.89

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 13**

## Witness: Derek Rahn

- Q-13. a. Provide a schedule of the calculation of the 12-month average line loss by month for November 2014 through October 2016.
  - b. Describe the actions that KU has taken to reduce line loss during this period.
- A-13. a. See attached.
  - b. KU's transmission and distribution system is constantly being expanded and upgraded to provide reliable electric service. All enhancements contribute to a system that will operate with potentially fewer line losses. New line construction and transformer additions provide facilities which may reduce the current in existing facilities, thus allowing power the path of least resistance. Replacing existing conductors with larger conductors or replacing existing transformers with larger transformers also reduce the resistance. Adding capacitors near the load reduces system reactive power (VAR) requirements and line and transformer currents. Any reduction in current and/or resistance results in reduced losses. The Company's planning and design objective is to provide a reliable transmission and distribution system at a reasonable cost. For Transmission and Distribution, the cost for losses are evaluated as outlined below.

Transmission:

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

#### **Distribution**:

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

#### Kentucky Utilities Company 12 month Average Line Loss November 2014 - October 2016

(1)	(2)	(3)	(4)	(5)	(6)
	Total kWh	Total kWh	12 Months	Total kWh	Current Month
	Sources 12	System Losses	End %	Sources	Calculates
Month	Months Ended	12 Months Ended	Losses	Current Month	System
	Current Month	Current Month			Losses (kWh)
			(3) / (2)		(4) x (5)
Nov-2014	23,523,022,000	1,435,972,744	6.104542%	1,923,890,000	117,444,673
Dec-2014	23,399,204,000	1,389,239,938	5.937125%	1,999,383,000	118,705,868
Jan-2015	23,102,930,000	1,392,060,208	6.025470%	2,272,732,000	136,942,785
Feb-2015	23,277,900,000	1,372,866,416	5.897725%	2,282,861,000	134,636,864
Mar-2015	23,188,089,000	1,387,272,829	5.982696%	1,911,759,000	114,374,729
Apr-2015	23,155,766,000	1,382,569,386	5.970735%	1,562,111,000	93,269,508
May-2015	23,189,828,000	1,360,636,254	5.867384%	1,806,112,000	105,971,527
Jun-2015	23,273,259,000	1,355,534,110	5.824428%	2,028,368,000	118,140,834
Jul-2015	23,534,855,000	1,358,622,697	5.772811%	2,201,548,000	127,091,205
Aug-2015	23,556,790,000	1,373,970,702	5.832589%	2,068,112,000	120,624,473
Sep-2015	23,668,983,000	1,342,056,934	5.670108%	1,900,502,000	107,760,516
Oct-2015	23,622,564,000	1,357,688,768	5.747423%	1,665,186,000	95,705,283
Nov-2015	23,350,828,000	1,358,555,412	5.818018%	1,652,154,000	96,122,617
Dec-2015	23,169,558,000	1,338,766,318	5.778126%	1,818,113,000	105,052,860
Jan-2016	23,100,925,000	1,338,991,165	5.796266%	2,204,099,000	127,755,441
Feb-2016	22,731,299,000	1,295,911,469	5.701000%	1,913,235,000	109,073,527
Mar-2016	22,555,237,000	1,278,689,754	5.669148%	1,735,697,000	98,399,232
Apr-2016	22,610,842,000	1,275,220,375	5.639862%	1,617,716,000	91,236,950
May-2016	22,492,514,000	1,275,843,680	5.672304%	1,687,784,000	95,736,239
Jun-2016	22,427,114,000	1,272,754,132	5.675069%	1,962,968,000	111,399,788
Jul-2016	22,326,254,000	1,276,218,222	5.716222%	2,100,688,000	120,079,990
Aug-2016	22,465,323,000	1,249,702,963	5.562809%	2,207,181,000	122,781,263
Sep-2016	22,469,789,000	1,290,059,000	5.741304%	1,904,968,000	109,370,004
Oct-2016	22,545,008,000	1,293,464,079	5.737253%	1,740,405,000	99,851,438

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

Case No. 2017-00003

## **Question No. 14**

### Witness: Eileen L. Saunders

Q-14. List KU's scheduled, actual, and forced outages between May 1, 2016 and October 31, 2016.

A-14. See attached.

#### Kentucky Utilities Company May 2016 through October 2016

Unit and Outage Type	Schedule	d	Act	ual*	HOURS OF	DURATION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE
(F=Forced; S=Scheduled)	FROM	то	FROM	то	Scheduled	Actual*	OR REASON FOR FORCED OUTAGE AS APPROPRIATE
	-				-	-	
E. W. Brown Unit 1 - Coal - 106 MW	-		7/27/2016 13:50	7/28/2016 9:23		19:33	Electro-Hydraulic Control (EHC) valve repair
	7/00/0040 0.00	7/00/00/00/00/00/00/00/00/00/00/00/00/00	7/00/00/00 0 00	7/00/00/00/00/00/00/00/00/00/00/00/00/00			
In-service May 1957	5 7/28/2016 9:23	7/28/2016 18:04	7/28/2016 9:23	7/28/2016 18:04	8:41	8:41	Boiler feed pump recirculating valve repair
	8/22/2016 2:15	8/22/2016 15:38	8/22/2016 2:15	8/22/2016 15:38	13:23	13:23	Flue Gas Desulfurization (FGD) damper inspection
	0/22/2010 2.15	0/22/2010 13:30	0/22/2010 2.13	0/22/2010 13:30	13.23	13.25	
	5 10/8/2016 0:50	10/11/2016 12:57	10/8/2016 0:50	10/11/2016 12:57	84:07	84:07	FGD expansion joint repair
s	6 10/26/2016 6:00	10/26/2016 17:11	10/26/2016 6:00	10/26/2016 17:11	11:11	11:11	Electrostatic Precipitator (ESP) ground inspection
E. W. Brown Unit 2 - Coal - 166 MW	5/4/2016 6:00	5/4/2016 16:42	5/4/2016 6:00	5/4/2016 16:42	10:42	10:42	Boiler waterwall tube leak
In-service June 1963	8 8/22/2016 2:15	8/22/2016 15:38	8/22/2016 2:15	8/22/2016 15:38	13:23	13:23	FGD damper inspection
5	S 9/17/2016 12:08	9/17/2016 20:28	9/17/2016 12:08	9/17/2016 20:28	8:20	8:20	Boiler steam drum terminal tube leak
	0/07/0040 5:00	0/00/0040 44-44	0/07/0040 5-00	0/00/0040 44-44	54.40	54.40	
	9/27/2016 5:28	9/29/2016 11:41	9/27/2016 5:28	9/29/2016 11:41	54:13	54:13	Boiler corner support repair
	5 10/7/2016 22:38	10/11/2016 12:57	10/7/2016 22:38	10/11/2016 12:57	86:19	86:19	FGD expansion joint repair
	10/1/2010 22.30	10/11/2010 12:57	10/1/2010 22:30	10/11/2010 12:37	00.19	00.15	
s	10/26/2016 6:00	10/27/2016 17:35	10/26/2016 6:00	10/27/2016 17:35	35:35	35:35	ESP ground inspection
E. W. Brown Unit 3 - Coal - 409 MW	5/16/2016 15:57	5/18/2016 12:00	5/16/2016 15:57	5/18/2016 12:00	44:03	44:03	Boiler waterwall tube leak
In-service July 1971 F	:		7/1/2016 12:21	7/5/2016 15:36		99:15	Boiler reheat tube leak
F	-		7/5/2016 21:43	7/7/2016 10:41		36:58	Induced Draft (ID) fan expansion joint temporary repair
	0/10/0010 00 10	0/17/00/05 50	0/10/0010 00 10	0/17/0010 5 50			
	8/13/2016 20:13	8/17/2016 5:56	8/13/2016 20:13	8/17/2016 5:56	81:43	81:43	ID fan expansion joint replacement
	-		8/17/2016 22:43	8/18/2016 21:43		23:00	Boiler circulating water pump (BCWP) bypass line weld repair
r I			5/17/2010 22.43	0/10/2010 21.43		20.00	
l s	8/22/2016 2:15	8/22/2016 15:35	8/22/2016 2:15	8/22/2016 15:35	13:20	13:20	FGD damper inspection
F	:		8/29/2016 13:20	8/31/2016 17:30		52:10	Boiler waterwall tube leak
s	S 10/3/2016 6:00	10/16/2016 0:07	10/3/2016 6:00	10/16/2016 0:07	306:07	306:07	Minor boiler inspection and weld repair
Ghent Unit 1 - Coal - 474 MW	6/28/2016 22:39	6/29/2016 21:29	6/28/2016 22:39	6/29/2016 21:29	22:50	22:50	Expansion joint repair
In-service February 1974	8/5/2016 23:42	8/6/2016 19:28	8/5/2016 23:42	8/6/2016 19:28	19:46	19:46	BCWP seal repair
			0/16/2016 19:26	9/23/2016 1:56		151:20	Poiler primary superheat tube look
F			9/16/2016 18:36	9/23/2010 1:56	1	151.20	Boiler primary superheat tube leak

#### Kentucky Utilities Company May 2016 through October 2016

Unit and Outage Type	Scheduled		Actual*		HOURS OF DURATION		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE
(F=Forced; S=Scheduled)	FROM	то	FROM	то	Scheduled	Actual*	OR REASON FOR FORCED OUTAGE AS APPROPRIATE
Ghent Unit 2 - Coal - 493 MW S	5/2/2016 22:15	5/4/2016 20:32	5/2/2016 22:15	5/4/2016 20:32	46:17	46:17	Condenser tube leak
In-service April 1977 F			7/8/2016 14:27	7/10/2016 11:25		44:58	Condenser expansion joint repair
s	10/1/2016 0:00	10/30/2016 15:00	9/28/2016 5:12	10/23/2016 17:06	711:00	611:54	Minor turbine outage
F			10/24/2016 8:27	10/24/2016 19:53		11:26	Removal of equipment following outage
s	10/26/2016 23:11	10/29/2016 2:13	10/26/2016 23:11	10/29/2016 2:13	51:02	51:02	Air Heater inspection and adjustment
Ghent Unit 3 - Coal - 485 MW S	5/5/2016 8:31	5/8/2016 21:20	5/5/2016 8:31	5/8/2016 21:20	84:49	84:49	Expansion joint repair
In-service May 1981 S	5/20/2016 9:43	5/30/2016 16:28	5/20/2016 9:43	5/30/2016 16:28	246:45	246:45	ID fan expansion joint replacement
F			6/9/2016 6:47	6/9/2016 18:19		11:32	Cooling system leak repair
s	6/9/2016 18:19	6/10/2016 9:20	6/9/2016 18:19	6/10/2016 9:20	15:01	15:01	Boiler inspection
F			6/11/2016 19:20	6/15/2016 17:45		94:25	Temporary generator ground caused by moisture from cooler leak
F			7/1/2016 21:22	7/3/2016 5:06		31:44	Boiler superheat tube leak
F			7/19/2016 21:37	7/20/2016 18:32		20:55	Boiler primary superheat tube leak
F			8/12/2016 1:09	8/13/2016 3:35		26:26	Boiler primary superheat tube leak
F			9/22/2016 2:36	9/23/2016 23:40		45:04	Boiler reheat tube leak
s	9/28/2016 8:08	9/29/2016 15:29	9/28/2016 8:08	9/29/2016 15:29	31:21	31:21	Boiler reheat tube leak
s	10/29/2016 0:00	11/20/2016 15:00	10/29/2016 15:54	11/18/2016 19:57	543:00	484:03	Minor boiler outage
Ghent Unit 4 - Coal - 465 MW F			7/23/2016 15:02	7/30/2016 21:06		174:04	Cooling tower inspection and repair
In-service August 1984 S	8/31/2016 22:06	9/2/2016 18:15	8/31/2016 22:06	9/2/2016 18:15	44:09	44:09	Circulating water line repair
S	10/12/2016 22:57	10/15/2016 8:30	10/12/2016 22:57	10/15/2016 8:30	57:33	57:33	Circulating water line repair

#### Kentucky Utilities Company May 2016 through October 2016

Unit and Outage Type	Scheduled	d	Acti	ual*	HOURS OF	DURATION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE
(F=Forced; S=Scheduled)	FROM	то	FROM	то	Scheduled	Actual*	OR REASON FOR FORCED OUTAGE AS APPROPRIATE
Trimble County Unit 2 - Coal - 549 MW S	4/30/2016 16:06	5/9/2016 6:47	4/30/2016 16:06	5/9/2016 6:47	206:41	206:41	Turbine bearing inspection and adjustment
In-service January 2011 F			5/9/2016 9:45	5/9/2016 16:18		6:33	Generator protection relay trip
75% ownership share of 732 MW jointly owned with LG&E F			5/10/2016 18:31	5/13/2016 5:10		58:39	Boiler drain leak repair
S	5/16/2016 3:44	5/18/2016 6:29	5/16/2016 3:44	5/18/2016 6:29	50:45	50:45	Wet electrostatic precipitator (WESP) inspection
_			5/10/0010 10 00	5/10/00/10 0 00		40.00	
F	·		5/18/2016 19:23	5/19/2016 8:26		13:03	Generator vibration inspection
F			5/19/2016 11:17	6/1/2016 0:00		300:43	Concreter vibration repair
F	[]		3/19/2010 11.17	0/1/2010 0.00		300.43	Generator vibration repair
F			6/1/2016 0:00	7/15/2016 5:45		1061:45	Generator vibration repair extension
İ İ							
F			7/18/2016 12:32	7/19/2016 23:59		35:27	Boiler pressure relief repair
F			7/31/2016 7:42	7/31/2016 18:56		11:14	Air Heater motor trip
F			7/31/2016 19:19	8/1/2016 2:59		7:40	Loss of power on transfer from Reserve to Main Aux Transformer
F			9/11/2016 1:31	9/11/2016 14:58		13:27	Main steam control valve position indicator repair
F			9/27/2016 6:46	9/27/2016 14:43		7:57	Primary air reference line transmitter repair
F			10/30/2016 8:46	10/30/2016 21:26		12:40	Steam control valve inspection and repair
F	1		10/30/2010 8.40	10/30/2010 21.20		12.40	Steam control valve hispection and repair
F			10/31/2016 2:17	10/31/2016 9:00		6:43	Low feedwater flow during start-up
Cane Run Unit 7 - Gas CC - 662 MW	7/2/2016 22:33	7/3/2016 18:33	7/2/2016 22:33	7/3/2016 18:33	20:00	20:00	Heat Recovery Steam Generator (HRSG) superheat vent repair
In-service June 2015 S	7/30/2016 21:12	7/31/2016 7:23	7/30/2016 21:12	7/31/2016 7:23	10:11	10:11	Shutdown for water pump tie-in to existing systems
Jointly owned with LG&E S	10/29/2016 0:00	11/20/2016 15:00	10/29/2016 0:03	11/18/2016 23:24	543:00	503:21	HRSG inspection, Combustion turbine borescope inspection
E. W. Brown Unit 5 - Gas CT - 130 MW S	10/15/2016 0:00	10/23/2016 15:00	10/19/2016 7:53	10/22/2016 14:40	207:00	78:47	Generator protection relay upgrade
In any inc. Iwas 2004							
In-service June 2001							
Jointly owned with LG&E							
E. W. Brown Unit 6 - Gas CT - 146 MW	5/6/2016 5:49	5/7/2016 3:44	5/6/2016 5:49	5/7/2016 3:44	21:55	21:55	Oil pump motor replacement
In-service August 1999 S	7/28/2016 6:07	7/28/2016 12:27	7/28/2016 6:07	7/28/2016 12:27	6:20	6:20	Fire protection system repair
Jointly owned with LG&E	10/15/2016 0:00	10/23/2016 15:00	10/19/2016 5:42	10/22/2016 12:27	207:00	78:45	Borescope inspection and relay protection upgrade
F			10/22/2016 13:25	10/24/2016 14:17		48:52	Generator protection relay calibration
#### Kentucky Utilities Company May 2016 through October 2016

Unit and Outage Type	Schedule	d	Act	ual*	HOURS OF	DURATION	REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE
(F=Forced; S=Scheduled)	FROM	то	FROM	то	Scheduled	Actual*	OR REASON FOR FORCED OUTAGE AS APPROPRIATE
E. W. Brown Unit 7 - Gas CT - 146 MW	S 10/20/2016 6:51	10/20/2016 17:53	10/20/2016 6:51	10/20/2016 17:53	11:02	11:02	Gas pipeline inspection
In-service August 1999	S 10/21/2016 8:26	10/21/2016 18:41	10/21/2016 8:26	10/21/2016 18:41	10:15	10:15	Gas pipeline inspection extension
Jointly owned with LG&E							
Jointy owned with EGRE							
E. W. Brown Unit 8 - Gas CT - 121 MW	F		6/2/2016 11:47	6/3/2016 9:35		21:48	Generator circuit breaker repair
In-service February 1995	S 6/7/2016 5:44	6/7/2016 17:12	6/7/2016 5:44	6/7/2016 17:12	11:28	11:28	Gas flow meter calibration
		- / /		- / /			
	S 6/30/2016 7:27	6/30/2016 16:08	6/30/2016 7:27	6/30/2016 16:08	8:41	8:41	Breaker inspection
	S 8/18/2016 5:42	8/18/2016 13:30	8/18/2016 5:42	8/18/2016 13:30	7:48	7:48	Lube oil system calibration
E. W. Brown Unit 9 - Gas CT - 121 MW	F		5/12/2016 7:59	5/14/2016 9:06		49:07	Heating element replacement
In-service January 1995	S 9/14/2016 5:50	9/14/2016 13:32	9/14/2016 5:50	9/14/2016 13:32	7:42	7:42	Generator step-up transformer electrical testing
	S 9/26/2016 5:42	9/26/2016 13:10	9/26/2016 5:42	9/26/2016 13:10	7:28	7:28	Inlet air manifold inspection
	0 0/20/2010 0.42	3/20/2010 10:10	5/20/2010 0.42	3/20/2010 10:10	7.20	1.20	
	F		10/17/2016 21:22	10/19/2016 7:21		33:59	Heating element inspection and replacement
E. W. Brown Unit 10 - Gas CT - 121 MW	S 8/16/2016 7:00	8/16/2016 13:00	8/16/2016 7:00	8/16/2016 13:00	6:00	6:00	Water injection system control valve calibration
In-service December 1995							
E. W. Brown Unit 11 - Gas CT - 121 MW	S 8/14/2016 11:00	8/14/2016 17:15	8/14/2016 11:00	8/14/2016 17:15	6:15	6:15	Gas valve calibration
In-service May 1996	S 10/24/2016 14:18	10/27/2016 17:17	10/24/2016 14:18	10/27/2016 17:17	74:59	74:59	Generator protection relay upgrade
Haefling Unit 1 - Gas CT - 12 MW	No substance on O house						
	No outages > or = 6 hours						
In-service October 1970							
Haefling Unit 2 - Gas CT - 12 MW	No outages > or = 6 hours						
In-service October 1970							
Paddys Run Unit 13 - Gas CT - 147 MW	S 10/29/2016 0:00	11/13/2016 15:00	10/24/2016 5:30	11/12/2016 10:11	375:00	460:41	High pressure gas line connection outage
In-service June 2001							
Jointly owned with LG&E							
Trimble County Unit 5 - Gas CT - 159 MW	F		5/11/2016 12:49	5/14/2016 14:38		73:49	Motor operated disconnect (MOD) repair and upgrade
In-service May 2002	F		6/26/2016 10:54	6/27/2016 12:44		25:50	Static start system inspection and repair
	0/10/00/	0/10/00101	0/10/0010	0/10/00101	0.00		
Jointly owned with LG&E	S 9/16/2016 5:20	9/16/2016 14:48	9/16/2016 5:20	9/16/2016 14:48	9:28	9:28	Gas control valve repair
	S 10/1/2016 0:00	10/16/2016 15:00	9/30/2016 20:23	10/15/2016 16:04	375:00	355:41	Unit controls upgrade

#### Kentucky Utilities Company May 2016 through October 2016

Unit and Outage Type	Schedule	d	Actual*		HOURS OF DURATION		REASON FOR DEVIATION FROM SCHEDULED MAINTENANCE
(F=Forced; S=Scheduled)	FROM	то	FROM	то	Scheduled	Actual*	OR REASON FOR FORCED OUTAGE AS APPROPRIATE
Trimble County Unit 6 - Gas CT - 159 MW	4/22/2016 20:30	5/29/2016 14:56	4/22/2016 20:30	5/29/2016 14:56	882:26	882:26	Hot gas path inspection
	4/22/2010 20:30	3/23/2010 14:30	4/22/2010 20:30	3/23/2010 14:30	002.20	002.20	
In-service May 2002 S	8/24/2016 6:26	8/24/2016 18:25	8/24/2016 6:26	8/24/2016 18:25	11:59	11:59	Gas valve servo replacement
Ill'service may 2002	0/24/2010 0.20	0/24/2010 18:25	0/24/2010 0.20	0/24/2010 10.23	11.59	11.59	Gas valve servo replacement
Jointly owned with LG&E	10/1/2016 0:00	10/16/2016 15:00	9/30/2016 20:23	10/15/2016 22:06	375:00	361:43	Unit controls upgrade
Jointly owned with LG&E S	10/1/2016 0.00	10/16/2016 15.00	9/30/2016 20.23	10/15/2016 22.06	375.00	301.43	
	10/15/2016 22:28	10/16/2016 7:42	10/15/2016 22:28	10/16/2016 7:42	9:14	9:14	Dest central ungrade system tuning
3	10/15/2016 22:28	10/16/2016 7.42	10/15/2016 22.26	10/16/2016 7:42	9.14	9.14	Post control upgrade system tuning
	40/40/0040 40:50	40/47/0040 0:00	40/40/0040 40:50	40/47/0040 0:00	10:04	10:04	Dest sector law ends to be and sector should be about a sector
	10/16/2016 10:56	10/17/2016 0:00	10/16/2016 10:56	10/17/2016 0:00	13:04	13:04	Post control upgrade tuning and combustion chamber repair
	10/17/2016 0:00	10/24/2016 7:40	10/17/2016 0:00	10/24/2016 7:49	175:49	175:49	Post control upgrade tuning and combustion chamber repair extension
3	10/17/2016 0:00	10/24/2016 7:49	10/17/2016 0.00	10/24/2016 7.49	175.49	175.49	Post control upgrade tuning and combustion chamber repair extension
Trimble County Unit 7, Oct OT, 450 MW	E/4 4/004 0 0:00	E /4 4/0040 4 4:00	E /4 4/0040 0:00	E/4 4/004 0 4 4:00	11:00	11:00	
Trimble County Unit 7 - Gas CT - 159 MW S	5/14/2016 3:00	5/14/2016 14:38	5/14/2016 3:00	5/14/2016 14:38	11:38	11:38	MOD repair and upgrade: shared equipment with TC5
In complete lune 0004	0/00/0040 0:00	0/00/0040 40:00	0/00/0040 0:00	0/00/0040 40:00	0.40	0.40	Dest subset whether below as shot
In-service June 2004 S	8/23/2016 6:28	8/23/2016 16:08	8/23/2016 6:28	8/23/2016 16:08	9:40	9:40	Post outage vibration balance shot
Is in the summer durity I OPE							
Jointly owned with LG&E							
				_ / /			
Trimble County Unit 8 - Gas CT - 159 MW F			5/24/2016 11:55	5/25/2016 20:05		32:10	Cooling system leak repair
In-service June 2004 F			8/9/2016 14:28	8/10/2016 10:01		19:33	Fire protection system repair
Jointly owned with LG&E							
Trimble County Unit 9 - Gas CT - 159 MW S	3/21/2016 2:27	5/4/2016 0:00	3/21/2016 2:27	5/4/2016 0:00	1053:33	1053:33	Generator rewind
In-service July 2004 S	5/4/2016 0:00	5/6/2016 22:22	5/4/2016 0:00	5/6/2016 22:22	70:22	70:22	Generator rewind extension
Jointly owned with LG&E S	10/22/2016 0:00	10/30/2016 15:00	10/24/2016 1:32	10/30/2016 17:56	207:00	160:24	Borescope inspection
Trimble County Unit 10 - Gas CT - 159 MW S	10/22/2016 0:00	10/30/2016 15:00	10/24/2016 1:32	10/31/2016 0:00	207:00	166:28	Generator protection relay upgrade
In-service July 2004 S	10/31/2016 0:00	10/31/2016 12:25	10/31/2016 0:00	10/31/2016 12:25	12:25	12:25	Gas line pressure regulating valve maintenance and tuning
Jointly owned with LG&E							

### KENTUCKY UTILITIES COMPANY

### **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

### **Question No. 15**

### Witness: Delbert Billiter

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

A-15. See attached.

### Attachment to Response to Question No. 15 Page 1 of 23 Billiter

A. NAME/ADDRESS:	Alliance Coal, LLC / J12007 1717 South Boulder Av., Suite 400 Tulsa, Oklahoma 74119-4886
B. PRODUCTION FACILITY: OPERATOR MINE LOCATION	Hopkins County Coal, Warrior Coal and Webster County Coal Seller's Mines Western Kentucky
C. CONTRACT EXECUTED DATE:	December 9, 2011
D. CONTRACT DURATION:	January 1, 2012 – December 31, 2016
E. CONTRACT AMENDMENTS:	Amendment No. 1, effective January 1, 2013. Determine Base price for 2013 and 2014. Amendment No. 2, effective January 1, 2014. Determine Base price for 2014 and 2015. Amendment No. 3, effective January 1, 2015. Determine Base price for 2015 and 2016. Amendment No. 4, effective January 1, 2016. Determine Base price for 2016.
F. ANNUAL TONNAGE REQUIREMENTS:	20123,000,000 tons20133,000,000 tons20143,000,000 tons20153,000,000 tons20163,000,000 tons
G. ACTUAL TONNAGE RECEIVED:	LG&EKU20122,877,460 tons14,326 tons20133,065,353 tons0 tons20142,942,649 tons60,536 tons20153,027,379 tons0 tons20162,147,399 tons257,247 tons(through 10/31/16)
H. PERCENT OF ANNUAL REQUIREMENTS:	2012       96%         2013       102%         2014       100%         2015       101%         2016       80% (through 10/31/16)

I. BASE PRICE (FOB Railcar/Barge):	2012 - \$47.00 per ton FOB Railcar 2013 - \$48.00 per ton FOB Railcar 2014 - \$47.38 per ton FOB Railcar/Barge 2015 - \$47.13 per ton FOB Railcar/Warrior 2015 - \$46.88 per ton FOB Railcar/Dotiki 2016 - \$45.75 per ton FOB Railcar/Warrior 2016 - \$45.00 per ton FOB Railcar/Dotiki
J. ESCALATIONS TO DATE:	None
K. CURRENT CONTRACT PRICE:	\$45.75 per ton FOB Railcar/Warrior \$45.00 per ton FOB Railcar/Dotiki

A. NAME/ADDRESS:	Alliance Coal, LLC / J16001B 1717 South Boulder Av., Suite 400 Tulsa, Oklahoma 74119-4886			
B. PRODUCTION FACILITY: OPERATOR MINE LOCATION	River View Coal, LLC River View Mine Union County, Kentucky			
C. CONTRACT EXECUTED DATE:	December 29, 2014			
D. CONTRACT DURATION:	January 1, 2016 – December 31, 2017			
E. CONTRACT AMENDMENTS:	Amendment No. 1, effective October 10, 2014. Extend term to December 31, 2017. Increase Base Quantity tonnage. Update Annual Base Price for 2016 and 2017. Contract J16001 Assignment from Patriot Coal Sales to Alliance Coal, LLC.			
F. ANNUAL TONNAGE REQUIREMENTS:	2016 960,000 tons 2017 480,000 tons			
G. ACTUAL TONNAGE RECEIVED:	2016 LG&E KU 557,197 tons 185,795 tons (through 10/31/16)			
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 77% (through 10/31/16)			
I. BASE PRICE (FOB Barge):	2016 - \$46.69 per ton 2017 - \$48.25 per ton			
J. ESCALATIONS TO DATE:	None			
K. CURRENT CONTRACT PRICE:	\$46.69 per ton			

### Attachment to Response to Question No. 15 Page 4 of 23 Billiter

A. NAME/ADDRESS:	Alliance Coal, LLC / J16008 1717 South Boulder Av., Suite 400 Tulsa, Oklahoma 74119-4886			
B. PRODUCTION FACILITY: OPERATOR MINE LOCATION	Gibson County Coal, LLC Gibson South Gibson County, Indiana			
C. CONTRACT EXECUTED DATE:	March 1, 2015			
D. CONTRACT DURATION:	January 1, 2016 – December 31, 2017			
E. CONTRACT AMENDMENTS:	Amendment No.1, effective March 1, 2016 Adds FOB Barge Load Point Mount Vernon Terminal MP 828			
F. ANNUAL TONNAGE REQUIREMENTS:	2016 250,000 tons 2017 250,000 tons			
G. ACTUAL TONNAGE RECEIVED:	2016 LG&E KU 0 tons 188,365 tons (through 10/31/16)			
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 75% (through 10/31/16)			
I. BASE PRICE (FOB Railcar/Barge):	2016 - \$47.00 per ton FOB Railcar \$54.50 per ton FOB Barge 2017 - \$49.00 per ton FOB Railcar			
J. ESCALATIONS TO DATE:	None			
K. CURRENT CONTRACT PRICE:	\$47.00 per ton FOB Railcar \$54.50 per ton FOB Barge			

## Attachment to Response to Question No. 15 Page 5 of 23 Billiter

A. NAME/ADDRESS:	Arch Coal Sales Company, Inc. / J16012 1 CityPlace Drive, Suite 300 St. Louis, Missouri 63141		
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	Thunder Basin Coal Company, LLC Black Thunder Complex Campbell County, Wyoming		
C. CONTRACT EXECUTED DATE:	June 2, 2015		
D. CONTRACT DURATION:	January 1, 2016 - December 31, 2017		
E. CONTRACT AMENDMENTS:	None		
F. ANNUAL TONNAGE REQUIREMENTS:	2016 600,000 tons 2017 600,000 tons		
G. ACTUAL TONNAGE: RECEIVED:	2016 <u>KU</u> 343,250 (through 10/31/16)		
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 57% (through 10/31/16)		
I. BASE PRICE (FOB Railcar)	2016\$11.50 per ton2017\$12.60 per ton		
J. ESCALATIONS TO DATE:	\$0.00 per ton		
K. CURRENT CONTRACT PRICE:	\$11.50 per ton		

## Attachment to Response to Question No. 15 Page 6 of 23 Billiter

A. NAME/ADDRESS:	Armstrong Coal Sales, LLC / J07032 407 Brown Road Madisonville, Kentucky 42431
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	Armstrong Coal Company, Inc Various Muhlenberg County and Ohio County, Kentucky
C. CONTRACT EXECUTED DATE:	December 20, 2007
D. CONTRACT DURATION:	January 1, 2008 - December 31, 2019
E. CONTRACT AMENDMENTS:	Amendment No. 1, effective July 1, 2008 amending base quantity and modifying diesel fuel adjustment to include explosives. Amendment No. 2, effective December 22, 2009 amending term, base quantity, price and environmental force majeure. Amendment No. 3, effective October 29, 2013 amending term, base quantity, price and payment. Assignment and Assumption Agreement dated August 6, 2015 assigning Agreement from Armstrong Coal Company, Inc. to Armstrong Coal Sales, LLC.
F. ANNUAL TONNAGE REQUIREMENTS:	2008600,000 tons20092,200,000 tons20101,800,000 tons2011 through 2013 - 2,100,000 tons per year2014 through 2016 - 1,000,000 tons per year2017 through 2019 - 700,000 tons per year
G. ACTUAL TONNAGE: RECEIVED:	LG&EKU2008511,414 tons82,623 tons20091,530,482 tons632,077 tons20101,180,206 tons657,930 tons2011993,296 tons877,219 tons2012904,254 tons1,211,495 tons2013838,589 tons1,431,403 tons2014346,954 tons634,044 tons

### Attachment to Response to Question No. 15 Page 7 of 23 Billiter

	2015 2016	<u>LG&amp;E</u> 312,387 tons 309,479 tons (through 10/31/16)	<u>KU</u> 627,074 tons 559,231 tons
H. PERCENT OF ANNUAL	2008	99%	
<b>REQUIREMENTS:</b>	2009	98%	
	2010	102%	
	2011	89%	
	2012	101%	
	2013	108%	
	2014	98%	
	2015	94%	
	2016	87% (through 10/31	/16)
I. BASE PRICE (FOB Railcar/Barge)	2008	Quality 1 - \$27.31 pe Quality 2 - \$28.30 pe	
	2009	Quality 1 - \$27.60 pe	or top
	2009	Quality 2 - \$28.76 pe	
		Quanty 2 - \$20.70 pt	
	2010	Quality 1 - \$28.18 pe	er ton
		Quality $2 - N/A$	
	2011	Quality 1 - \$28.19 pe	er ton
		Quality 2 - \$29.61 pe	er ton
	2012	Quality 1 - \$28.35 pe	er ton
		Quality 2 - \$29.77 pe	er ton
	2013	Quality 1 - \$28.35 pe	
		Quality 2 - \$29.77 pe	er ton
	2014 2017		
	2014-2017	Quality 1 - \$28.50 pe	
		Quality 2 - \$29.92 pe	er ton
	2018	Quality 1 - \$29.00 pe	or ton
	2018	Quality 2 - \$30.42 pe	
		Quanty 2 - \$50.42 pt	
	2019	Quality 1 - \$30.25 pe	er ton
	2017	Quality 2 - \$31.67 pe	
		Zumity 2 (\$31.07 pt	

Attachment to Response to Question No.15 Page 8 of 23 Billiter

## J. ESCALATIONS TO DATE: -\$0.98 per ton

K. CURRENT CONTRACT PRICE:

Quality 1 - \$27.52 per ton Quality 2 - \$28.94 per ton

# Attachment to Response to Question No. 15 Page 9 of 23 Billiter

A. NAME/ADDRESS:	Armstrong Coal Sales, LLC / J14004 407 Brown Road Madisonville, Kentucky 42431				
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	Armstrong Coal Company, Inc. Various Muhlenberg County and Ohio County, Kentucky				
C. CONTRACT EXECUTED DATE:	December 12, 2012	ecember 12, 2012			
D. CONTRACT DURATION:	January 1, 2013 - December 31, 2017				
E. CONTRACT AMENDMENTS:	Amendment No. 1, effective October 29, 20 amending base quantity and price. Assignment and Assumption Agreement da August 6, 2015 assigning Agreement from Armstrong Coal Company, Inc. to Armstron Sales, LLC.	ted			
F. ANNUAL TONNAGE REQUIREMENTS:	20141,300,000 tons20151,350,000 tons2016500,000 tons2017500,000 tons				
G. ACTUAL TONNAGE: RECEIVED:	LG&E         KU           2014         647,205 tons         579,440 tons           2015         323,703 tons         861,959 tons           2016         279,420 tons         318,086 tons           (through 10/31/16)         512,120,120,120,120,120,120,120,120,120,1				
H. PERCENT OF ANNUAL REQUIREMENTS:	2014 94% 2015 88% 2016 120% (through 10/31/16)				
I. BASE PRICE (FOB Railcar/Barge)	RailcarBarge2014\$44.60 per ton\$45.60 per ton2015\$46.01 per ton\$47.01 per ton2016\$46.75 per ton\$47.75 per ton2017\$47.90 per ton\$48.90 per ton	1 1			

### Attachment to Response to Question No. 15 Page 10 of 23 Billiter

J. ESCALATIONS TO DATE:

Railcar/Barge -\$5.47 per ton

K. CURRENT CONTRACT PRICE:

Railcar \$41.28 per ton Barge \$42.28 per ton

## Attachment to Response to Question No.15 Page 11 of 23 Billiter

A. NAME/ADDRESS:	Armstrong Coal Sales, LLC / J14010 407 Brown Road Madisonville, Kentucky 42431
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	Armstrong Coal Company, Inc. Various Muhlenberg County and Ohio County, Kentucky
C. CONTRACT EXECUTED DATE:	December 12, 2012
D. CONTRACT DURATION:	January 1, 2014 - December 31, 2019
E. CONTRACT AMENDMENTS:	Assignment and Assumption Agreement dated August 6, 2015 assigning Agreement from Armstrong Coal Company, Inc. to Armstrong Coal Sales, LLC.
F. ANNUAL TONNAGE REQUIREMENTS:	2014100,000 tons2015100,000 tons2016100,000 tons2017100,000 tons2018100,000 tons2019100,000 tons
G. ACTUAL TONNAGE: RECEIVED:	LG&E         KU           2014         38,628 tons         59,303 tons           2015         28,826 tons         75,097 tons           2016         14,332 tons         64,070 tons           (through 10/31/16)         59,303 tons
H. PERCENT OF ANNUAL REQUIREMENTS:	2014 98% 2015 104% 2016 78% (through 10/31/16)
I. BASE PRICE (FOB Barge/Railcar)	2014\$40.00 per ton2015\$41.00 per ton2016\$42.00 per ton2017\$43.00 per ton2018\$44.00 per ton2019\$45.00 per ton

### Attachment to Response to Question No.15 Page 12 of 23 Billiter

J. ESCALATIONS TO DATE:

None

K. CURRENT CONTRACT PRICE:

\$42.00 per ton

## Attachment to Response to Question No. 15 Page 13 of 23 Billiter

A. NAME/ADDRESS:	Armstrong Coal Sales, LLC / J16003 407 Brown Road Madisonville, Kentucky 42431
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	Armstrong Coal Company, Inc. Various Muhlenberg County and Ohio County, Kentucky
C. CONTRACT EXECUTED DATE:	September 8, 2014
D. CONTRACT DURATION:	January 1, 2016 - December 31, 2017
E. CONTRACT AMENDMENTS:	Assignment and Assumption Agreement dated August 6, 2015 assigning Agreement from Armstrong Coal Company, Inc. to Armstrong Coal Sales, LLC.
F. ANNUAL TONNAGE REQUIREMENTS:	2016 1,000,000 tons 2017 1,000,000 tons
G. ACTUAL TONNAGE: RECEIVED:	2016 LG&E KU 329,788 tons (through 10/31/16)
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 78% (through 10/31/16)
I. BASE PRICE (FOB Barge/Railcar)	2016\$42.80 per ton2017\$44.00 per ton
J. ESCALATIONS TO DATE:	-\$5.54 per ton
K. CURRENT CONTRACT PRICE:	\$37.26 per ton

## Attachment to Response to Question No.15 Page 14 of 23 Billiter

A. NAME/ADDRESS:	Armstrong Coal Sales, LLC / J16017 407 Brown Road Madisonville, Kentucky 42431
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	Armstrong Coal Company, Inc. Various Muhlenberg County and Ohio County, Kentucky
C. CONTRACT EXECUTED DATE:	September 16, 2015
D. CONTRACT DURATION:	September 1, 2015 - December 31, 2018
E. CONTRACT AMENDMENTS:	None
F. ANNUAL TONNAGE REQUIREMENTS:	2016400,000 tons2017720,000 tons20181,000,000 tons
G. ACTUAL TONNAGE: RECEIVED:	2016 <u>LG&amp;E</u> <u>KU</u> 69,982 tons 236,975 tons (through 10/31/16)
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 77% (through 10/31/16)
I. BASE PRICE (FOB Railcar/Barge)	RailcarBarge2016\$38.25 per ton\$39.25 per ton2017\$39.25 per ton\$40.25 per ton2018\$40.25 per ton\$41.25 per ton
J. ESCALATIONS TO DATE:	Railcar/Barge -\$2.61 per ton
K. CURRENT CONTRACT PRICE:	RailcarBarge\$35.64 per ton\$36.64 per ton

## Attachment to Response to Question No.15 Page 15 of 23 Billiter

A. NAME/ADDRESS:	6100 I	e Refined Coal LLC / H Dutchmans Lane, 11 <sup>th</sup> ville, Kentucky 40205	
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	BRC I	e Refined Coal LLC Estill County Facility County, Kentucky	
C. CONTRACT EXECUTED DATE:	Octob	er 6, 2014	
D. CONTRACT DURATION:	Octob	er 1, 2014 - December	31, 2016
E. CONTRACT AMENDMENTS:	None		
F. ANNUAL TONNAGE REQUIREMENTS:	2014 2015 2016		
G. ACTUAL TONNAGE: RECEIVED:	2014 2015 2016	,	10/31/16)
H. PERCENT OF ANNUAL REQUIREMENTS:	2014 2015 2016	83%	16)
I. BASE PRICE (FOB E.W. Brown)	2014 2015 2016	120,000 lbs. GVW \$58.50 per ton \$59.67 per ton \$60.84 per ton	80,000 lbs. GVW \$69.50 per ton \$70.67 per ton \$71.84 per ton
J. ESCALATIONS TO DATE:	None		
K. CURRENT CONTRACT PRICE:		<u>120,000 lbs. GVW</u> \$60.84 per ton	80,000 lbs. GVW \$71.84 per ton

## Attachment to Response to Question No.15 Page 16 of 23 Billiter

A. NAME/ADDRESS:	Eagle River Coal, LLC / J16005 29 West Raymond St. Harrisburg, Illinois 62946
B. PRODUCTION FACILITY: OPERATOR MINES LOCATION	Eagle River Coal, LLC Eagle River Surface Mine No.1 Saline County, Illinois
C. CONTRACT EXECUTED DATE:	November 11, 2014
D. CONTRACT DURATION:	January 1, 2016 - December 31, 2018
E. CONTRACT AMENDMENTS:	None
F. ANNUAL TONNAGE REQUIREMENTS:	2016300,000 tons2017420,000 tons2018420,000 tons
G. ACTUAL TONNAGE: RECEIVED:	2016 <u>LG&amp;E</u> <u>KU</u> 98,204 tons 128,137 tons (through 10/31/16)
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 75% (through 10/31/16)
I. BASE PRICE (FOB Barge)	2016\$48.20 per ton2017\$49.30 per ton2018\$52.30 per ton
J. ESCALATIONS TO DATE:	-\$3.75 per ton
K. CURRENT CONTRACT PRICE:	\$44.45 per ton

Attachment to Response to Question No. 15 Page 17 of 23 Billiter

A. NAME/ADDRESS:	Foresight Coal Sales, LLC / J16018 46226 National Road St. Clairsville, Ohio 43950
B. PRODUCTION FACILITY: OPERATOR: MINES:	Macoupin Energy, LLC Sugar Camp Energy, LLC Hillsboro Energy, LLC Williamson Energy, LLC Shay Mine No. 1 Deer Run Mine MC#1
LOCATION:	Mach #1 Macoupin, Montgomery, Williamson and Franklin Counties, Illinois
C. CONTRACT EXECUTED DATE:	December 19, 2015
D. CONTRACT DURATION:	December 1, 2015 - December 31, 2019
E. CONTRACT AMENDMENTS:	None
F. ANNUAL TONNAGE REQUIREMENTS	Total 3,000,000 tonsYearVolume Range2016 $0 - 500,000$ tons2017 $1,000,000 - 1,500,000$ tons2018 $1,000,000 - 1,500,000$ tons2019 $0 - 1,000,000$ tons
G. ACTUAL TONNAGE: RECEIVED:	KULGE20160 tons0 tons
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 NA
I. BASE PRICE: (FOB Barge)	Volume Range (Cumulative) $0 - 1,000,000$ tonsBase Price \$38.95 per ton \$40.45 per ton \$40.45 per ton \$42.35 per ton
J. ESCALATIONS TO DATE:	None
K. CURRENT CONTRACT PRICE:	\$38.95 per ton

## Attachment to Response to Question No.15 Page 18 of 23 Billiter

A. NAME/ADDRESS:	Peabody COALSALES, LLC / J16007 701 Market Street St. Louis, Missouri 63101
B. PRODUCTION FACILITY: OPERATOR MINE LOCATION	Peabody Midwest Mining, LLC Peabody Wild Boar Mining, LLC Somerville Mine Complex Wild Boar Warrick & Gibson Counties, Indiana
C. CONTRACT EXECUTED DATE:	April 6, 2015
D. CONTRACT DURATION:	April 1, 2015 – December 31, 2018
E. CONTRACT AMENDMENTS:	Amendment No. 1 effective September 1, 2015 Extend term to December 31, 2018 and add 250K tons to 2016, 750K tons to 2017 and 750K tons to 2018. Added new pricing for 2016 through 2018
F. ANNUAL TONNAGE REQUIREMENTS:	2016750,000 tons2017750,000 tons2018750,000 tons
G. ACTUAL TONNAGE RECEIVED:	2016 <u>KU</u> 596,700 tons (through 10/31/2016) <u>LGE</u> 17,804 tons
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 82% (through 10/31/2016)
I. BASE PRICE: (FOB Barge/Railcar)	<ul> <li>2016 1<sup>st</sup> 500,000 tons</li> <li>\$45.75 per ton – FOB Barge Evansville</li> <li>\$45.75 per ton – FOB Barge Warrick Co.</li> <li>\$42.75 per ton – FOB Railcar</li> </ul>
	2016 Last 250,000 tons

\$40.75 per ton – FOB Barge Evansville \$40.75 per ton – FOB Barge Warrick Co. \$37.75 per ton – FOB Railcar

### Attachment to Response to Question No. 15 Page 19 of 23 Billiter

- 2017 \$41.75 per ton FOB Barge Evansville \$41.75 per ton – FOB Barge Warrick Co. \$38.75 per ton – FOB Railcar
- 2018 \$42.75 per ton FOB Barge Evansville \$42.75 per ton – FOB Barge Warrick Co. \$39.75 per ton – FOB Railcar
- J. ESCALATIONS TO DATE: 2016 1<sup>st</sup> 500,000 tons -\$8.42 per ton – FOB Barge Evansville -\$7.49 per ton – FOB Barge Warrick Co. -\$7.49 per ton – FOB Railcar
  - 2016 Last 250,000 tons
    -\$2.48 per ton FOB Barge Evansville
    -\$2.26 per ton FOB Barge Warrick Co.
    -\$2.26 per ton FOB Railcar
- K. CURRENT CONTRACT PRICE: 2016 Last 250,000 tons
  \$38.27 per ton FOB Barge Evansville
  \$38.49 per ton FOB Barge Warrick Co.
  \$35.49 per ton FOB Railcar

## Attachment to Response to Question No.15 Page 20 of 23 Billiter

A. NAME/ADDRESS: B. PRODUCTION FACILITY: OPERATOR MINE LOCATION	Rhino Energy LLC and Pennyrile Energy LLC / J14001 424 Lewis Hargett Circle, Suite 250 Lexington, Kentucky 40503 Pennyrile Energy LLC Riveredge Mine Mclean County, Kentucky
C. CONTRACT EXECUTED DATE:	December 11, 2012
D. CONTRACT DURATION:	December 10, 2014 - December 31, 2020
E. CONTRACT AMENDMENTS:	None
F. ANNUAL TONNAGE REQUIREMENTS:	2014 150,000 tons 2015 800,000 tons 2016 800,000 tons 2017 800,000 tons 2018 – 2020 re-opener
G. ACTUAL TONNAGE RECEIVED:	LG&EKU201443,582 tons70,647 tons2015121,084 tons580,770 tons201662,122 tons642,673 tons(through 10/31/16)
H. PERCENT OF ANNUAL REQUIREMENTS:	2014       76%         2015       88%         2016       88% (through 10/31/16)
I. BASE PRICE (FOB Barge):	2014       \$45.25 per ton         2015       \$46.50 per ton         2016       \$48.25 per ton         2017       \$50.00 per ton         2018 - 2020 re-opener
J. ESCALATIONS TO DATE:	None
K. CURRENT CONTRACT PRICE:	\$48.25 per ton

### Attachment to Response to Question No. 15 Page 21 of 23 Billiter

A. NAME/ADDRESS:	The American Coal Company / J16006 46226 National Road St. Clairsville, Ohio 43950
B. PRODUCTION FACILITY: OPERATOR: MINES: LOCATION:	The American Coal Company New Era Mine and New Future Mine Saline County, Illinois
C. CONTRACT EXECUTED DATE:	December 19, 2015
D. CONTRACT DURATION:	December 1, 2014 - December 31, 2019
E. CONTRACT AMENDMENTS:	Amendment No.1 effective January 1, 2016, change FOB Barge Loading Point to Sitran Dock MP 817.5 Ohio River. Amendment No. 2 effective September 1, 2016, reduce FOB Barge Price.
F. ANNUAL TONNAGE REQUIREMENTS	Total 3,000,000 tonsYearVolume Range2016 $0 - 500,000$ tons2017 $1,000,000 - 1,500,000$ tons2018 $1,000,000 - 1,500,000$ tons2019 $0 - 1,000,000$ tons
G. ACTUAL TONNAGE: RECEIVED:	KULGE20160 tons0 tons
H. PERCENT OF ANNUAL REQUIREMENTS:	2016 NA
I. BASE PRICE: (FOB Barge)	Volume Range (Cumulative) $0 - 500,000$ tonsBase Price $$43.50$ per ton $$44.00$ per ton $$44.75$ per ton $$44.75$ per ton $$44.75$ per ton $$45.50$ per ton $$2,000,001 - 2,500,000$ tons $$2,500,001 - 3,000,000$ tonsBase Price $$43.50$ per ton $$44.75$ per ton $$44.75$ per ton $$45.50$ per ton $$46.50$ per ton $$47.00$ per ton

J. ESCALATIONS TO DATE:

None

Attachment to Response to Question No. 15 Page 22 of 23 Billiter

K. CURRENT CONTRACT PRICE: \$43.50 per ton

# Attachment to Response to Question No. 15 Page 23 of 23 Billiter

A. NAME/ADDRESS:	Triad Mining, LLC / J15002 3228 Summit Square Place, Suite 180 Lexington, Kentucky 40509
B. PRODUCTION FACILITY: OPERATOR: MINES: LOCATION:	Triad Mining, LLC Log Creek Pike County, Indiana
C. CONTRACT EXECUTED DATE:	January 23, 2015
D. CONTRACT DURATION:	January 1, 2015 - December 30, 2017
E. CONTRACT AMENDMENTS:	None
F. ANNUAL TONNAGE REQUIREMENTS:	2015360,000 tons2016500,000 tons2017500,000 tons
G. ACTUAL TONNAGE: RECEIVED:	<u>KU</u> 2015 362,200 tons 2016 431,521 tons (through 10/31/16)
H. PERCENT OF ANNUAL REQUIREMENTS:	2015 101% 2016 86% (through 10/31/16)
I. BASE PRICE: (FOB Railcar)	2015\$44.00 per ton2016\$46.00 per ton2017\$47.50 per ton
J. ESCALATIONS TO DATE:	-\$3.34 per ton
K. CURRENT CONTRACT PRICE:	\$42.66 per ton

### **KENTUCKY UTILITIES COMPANY**

### **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

Case No. 2017-00003

**Question No. 16** 

## Witness: Derek Rahn

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

A-16. See attached.

## Kentucky Utilities Revised Tariffs

Tariff Sheet No. 5	Rate Schedule RS	Energ	g Base Rate y, Fuel and ECR 0.08870	Com	sting Fuel ponent of se Rates 0.02892	Rate	isting Base Excluding fuel Base 0.05978	Cor	vised Fuel mponent of ase Rates 0.02609	Rat	evised Base es including el and ECR 0.08587
6	RTOD-Energy Off Peak On Peak	\$ \$	0.05740 0.27646	\$ \$	0.02892 0.02892	\$ \$	0.02848 0.24754	\$ \$	0.02609 0.02609	\$ \$	0.05457 0.27363
6.1	RTOD - Demand	\$	0.04370	\$	0.02892	\$	0.01478	\$	0.02609	\$	0.04087
7	VFD		0.08870		0.02892		0.05978		0.02609		0.08587
10	GS		0.10426		0.02892		0.07534		0.02609		0.10143
12	AES		0.08369		0.02892		0.05477		0.02609		0.08086
15	PS Secondary Primary		0.03572 0.03446		0.02892 0.02892		0.00680 0.00554		0.02609 0.02609		0.03289 0.03163
20	TODS		0.03527		0.02892		0.00635		0.02609		0.03244
22	TODP		0.03432		0.02892		0.00540		0.02609		0.03149
25	RTS		0.03357		0.02892		0.00465		0.02609		0.03074
30	FLS Primary Transmission		0.03643 0.03344		0.02892 0.02892		0.00751 0.00452		0.02609 0.02609		0.03360 0.03061
37	LE		0.07328		0.02892		0.04436		0.02609		0.07045
38	TE		0.08740		0.02892		0.05848		0.02609		0.08457

## Attachment to Response to Question No. 16 Page 2 of 3 Rahn

#### LIGHTING SCHEDULES; ALL RATES PER UNIT PER MONTH

				Kwh per	Fuel Factor Increase \$/kWh	Annual Increase per year	Monthly Increase	Ta		
Page S	Schedule			year	(0.00283)			Existing	Rev	ised
35 1	LS Lighti	ng Service								
	Overhead	Service								
	Rate		Approximate							
	Code	Type of Fixture	Lumens	kW Per Light						
	High Press	sure Sodium		-						
	462	Cobra Head	5,800	0.083	332 kWh/year	(0.94)	(0.08)	\$ 9.86	\$	9.7
	472	Cobra Head	5,800	0.083	332 kWh/year	(0.94)	(0.08)	13.04		12.9
	463	Cobra Head	9,500	0.117	468 kWh/year	(1.32)	(0.11)	10.28		10.1
	473	Cobra Head	9,500	0.117	468 kWh/year	(1.32)	(0.11)	13.70		13.
	464	Cobra Head	22,000	0.242	968 kWh/year	(2.74)	(0.23)	16.08		15.8
	474	Cobra Head	22,000	0.242	968 kWh/year	(2.74)	(0.23)	19.50		19.2
	465	Cobra Head	50,000	0.471	1,884 kWh/year	(5.33)	(0.44)	25.61		25.
	475	Cobra Head	50,000	0.471	1,884 kWh/year	(5.33)	(0.44)	27.37		26.9
	487	Directional	9,500	0.117	468 kWh/year	(1.32)	(0.11)	10.13		10.0
	488	Directional	22,000	0.242	968 kWh/year	(2.74)	(0.23)	15.42		15.
	489	Directional	50,000	0.471	1,884 kWh/year	(5.33)	(0.44)	21.95		21.
	428	Open Bottom	9,500	0.117	468 kWh/year	(1.32)	(0.11)	8.87		8.
	Metal Hali	de								
		Directional	12,000	0.150	600 kWh/year	(1.70)	(0.14)	16.13		15.
		Directional	32,000	0.350	1,400 kWh/year	(3.96)	(0.33)	22.80		22.
		Directional	107,800	1.080	4,320 kWh/year	(12.23)	(1.02)	47.70		46.
35.1 1	LS Lighti	ng Service								
	Undergrou	and Service								
	Rate		Approximate							
	Code	Type of Fixture	Lumens	kW Per Light						
	High Press	sure Sodium								
	467	Colonial	5,800	0.083	332 kWh/year	(0.94)	(0.08)	\$ 12.14	\$	12.0
	468	Colonial	9,500	0.117	468 kWh/year	(1.32)	(0.11)	12.46		12.
	401	Acorn	5,800	0.083	332 kWh/year	(0.94)	(0.08)	16.57		16.
	411	Acorn	5,800	0.083	332 kWh/year	(0.94)	(0.08)	23.63		23.
	420	Acorn	9,500	0.117	468 kWh/year	(1.32)	(0.11)	17.01		16.
	430	Acorn	9,500	0.117	468 kWh/year	(1.32)	(0.11)	24.20		24.
	414	Victorian	5,800	0.083	332 kWh/year	(0.94)	(0.08)	33.87		33.
		Victorian	9,500	0.117	468 kWh/year	(1.32)	(0.11)	34.19		34.0
	492	Contemporary	5,800	0.083	332 kWh/year	(0.94)	(0.08)	17.12		17.
		Contemporary	5,800	0.083	332 kWh/year	(0.94)	(0.08)	18.66		18.
		Contemporary	9,500	0.117	468 kWh/year	(1.32)	(0.11)	17.00		16.8
		Contemporary	9,500	0.117	468 kWh/year	(1.32)	(0.11)	23.09		22.9
		Contemporary	22,000	0.242	968 kWh/year	(2.74)	(0.23)	19.84		19.0
		Contemporary	22,000	0.242	968 kWh/year	(2.74)	(0.23)	29.73		29.
	499	Contemporary	50,000	0.471	1,884 kWh/year	(5.33)	(0.44)	24.15		23.
	479	Contemporary	50,000	0.471	1,884 kWh/year	(5.33)	(0.44)	36.74		36.
	200	Dark Sky	4,000	0.060	240 kWh/year	(0.68)	(0.06)	\$ 24.72	\$	24.
		Dark Sky	9,500	0.117	468 kWh/year	(1.32)	(0.11)	25.83		25.

35.2 LS Lighting Service

Underground Service

Rate		Approximate						
Code	Type of Fixture	Lumens	kW Per Light					
Metal Hal	ide							
490	Contemporary	12,000	0.150	600 kWh/year	(1.70)	(0.14)	17.45	17.31
494	Contemporary	12,000	0.150	600 kWh/year	(1.70)	(0.14)	31.42	31.28
491	Contemporary	32,000	0.350	1,400 kWh/year	(3.96)	(0.33)	24.68	24.35
495	Contemporary	32,000	0.350	1,400 kWh/year	(3.96)	(0.33)	38.64	38.31
493	Contemporary	107,800	1.080	4,320 kWh/year	(12.23)	(1.02)	51.32	50.30
496	Contemporary	107,800	1.080	4,320 kWh/year	(12.23)	(1.02)	65.28	64.26

## Attachment to Response to Question No. 16 Page 3 of 3 Rahn

#### LIGHTING SCHEDULES; ALL RATES PER UNIT PER MONTH

Page	Schedule			Kwh per year	Fuel Factor Increase \$/kWh (0.00283)	Annual Increase per year	Monthly Increase	Ta: Existing	riff Revise
36	RLS Rest	ricted Lighting Service		·	· · · · ·			0	
30		0 0							
	Overnea	d Service							
	Rat		Approximate						
		e Type of Fixture	Lumens	kW Per Light					
	U	ssure Sodium Cobra Head	4,000	0.060	240 hW/b/waar	(0.68)	(0.06)	8.53	8
		Cobra Head	4,000	0.060	240 kWh/year 240 kWh/year	(0.68)	(0.06)	8.55 11.73	11
		Cobra Head	50,000	0.471	1,884 kWh/year	(5.33)	(0.44)	13.56	13
	426	5 Open Bottom	5,800	0.083	332 kWh/year	(0.94)	(0.08)	8.54	8
	Metal Ha	alide							
		4 Directional	12,000	0.150	600 kWh/year	(1.70)	(0.14)	\$ 20.89	\$ 20
	455	5 Directional	32,000	0.350	1,400 kWh/year	(3.96)	(0.33)	27.56	27
	459	9 Directional	107,800	1.080	4,320 kWh/year	(12.23)	(1.02)	52.45	51
	Mercury	•							
		5 Directional	7,000	0.207	828 kWh/year	(2.34)	(0.20)		\$ 10
		5 Directional	7,000	0.207	828 kWh/year	(2.34)	(0.20)	13.27	13
		7 Directional	10,000	0.294	1,176 kWh/year	(3.33)	(0.28)	12.77	12
		7 Directional	10,000	0.294	1,176 kWh/year	(3.33)	(0.28)	14.98	14
		<ul><li>B Directional</li><li>B Directional</li></ul>	20,000 20,000	0.453 0.453	1,812 kWh/year 1,812 kWh/year	(5.13) (5.13)	(0.43) (0.43)	14.45 16.91	14 16
	404	4 Open Bottom	7,000	0.207	828 kWh/year	(2.34)	(0.20)	11.87	11
36.1	RLS Rest	ricted Lighting Service	1,000	0.207	020 k (riii year		(0.20)		
36.1	RLS Rest Overhead	ricted Lighting Service		0.207	020 k Will your	(	(4123)		
36.1	RLS Rest Overhead Rat	ricted Lighting Service d Service (continued) e	Approximate				()		
36.1	RLS Rest Overhead Rat Cod	ricted Lighting Service d Service (continued) e le Type of Fixture		kW Per Light			()		
36.1	RLS Rest Overhead Rat Cod Incandes	ricted Lighting Service d Service (continued) e le Type of Fixture cent	Approximate Lumens	kW Per Light				3.81	
36.1	RLS Rest Overhead Rat Cod Incandes 42	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop	Approximate Lumens 1,000	kW Per Light 0.102	408 kWh/year	(1.15)	(0.10)	3.81	3
36.1	RLS Rest Overhead Rat Cod Incandes 42 42	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop	Approximate Lumens 1,000 2,500	kW Per Light 0.102 0.201	408 kWh/year 804 kWh/year	(1.15) (2.28)		5.11	3 4
36.1	RLS Rest Overhead Rat Cod Incandes 42 42 42 42	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop	Approximate Lumens 1,000	kW Per Light 0.102	408 kWh/year 804 kWh/year 1,308 kWh/year	(1.15) (2.28) (3.70)	(0.10) (0.19) (0.31)		3 4 7
36.1	RLS Rest Overhead Rat Cod Incandes 42 42 42 42	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 4 Tear Drop	Approximate Lumens 1,000 2,500 4,000	kW Per Light 0.102 0.201 0.327	408 kWh/year 804 kWh/year	(1.15) (2.28)	(0.10) (0.19)	5.11 7.63	3 4 7 8
36.1	RLS Rest Overhead Rat Cod Incandes 42 42 42 42 42 42 42 42 42 42 42 42	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 4 Tear Drop	Approximate Lumens 1,000 2,500 4,000 4,000	kW Per Light 0.102 0.201 0.327 0.327	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year	(1.15) (2.28) (3.70) (3.70)	(0.10) (0.19) (0.31) (0.31)	5.11 7.63 8.67	3 4 7 8
36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 42: 42: 42: 42: 42: 42:	ricted Lighting Service d Service (continued) e Type of Fixture cent Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop 5 mear Drop	Approximate Lumens 1,000 2,500 4,000 4,000 6,000 Approximate	kW Per Light 0.102 0.201 0.327 0.327 0.447	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year	(1.15) (2.28) (3.70) (3.70)	(0.10) (0.19) (0.31) (0.31)	5.11 7.63 8.67	3 4 7 8
36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 42: 42: 42: 42: 42: 42:	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop bund Service e le Type of Fixture	Approximate Lumens 1,000 2,500 4,000 4,000 6,000	kW Per Light 0.102 0.201 0.327 0.327	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year	(1.15) (2.28) (3.70) (3.70)	(0.10) (0.19) (0.31) (0.31)	5.11 7.63 8.67	3 4 7 8
36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 42: 42: 42: 42: 42: 42:	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop 5 mund Service e le Type of Fixture alide	Approximate Lumens 1,000 2,500 4,000 4,000 6,000 Approximate Lumens	kW Per Light 0.102 0.201 0.327 0.327 0.447 kW Per Light	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year 1,788 kWh/year	(1.15) (2.28) (3.70) (3.70) (5.06)	$\begin{array}{c} (0.10) \\ (0.19) \\ (0.31) \\ (0.31) \\ (0.42) \end{array}$	5.11 7.63 8.67 10.19	3 4 7 8 9
36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 42: 42: 42: 42: 42: 42:	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop 5 Tear Drop 5 Dund Service e le Type of Fixture alide 0 Directional	Approximate Lumens 1,000 2,500 4,000 4,000 6,000 Approximate Lumens 12,000	kW Per Light 0.102 0.201 0.327 0.327 0.447 kW Per Light 0.150	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year 1,788 kWh/year 600 kWh/year	(1.15) (2.28) (3.70) (3.70) (5.06) (1.70)	(0.10) (0.19) (0.31) (0.31) (0.42) (0.14)	5.11 7.63 8.67 10.19 30.10	3 4 7 8 9 29
36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 42: 42: 42: 42: 42: 42:	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop bund Service e le Type of Fixture alide 0 Directional	Approximate Lumens 1,000 2,500 4,000 4,000 6,000 Approximate Lumens 12,000 32,000	kW Per Light 0.102 0.201 0.327 0.327 0.447 kW Per Light 0.150 0.350	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year 1,788 kWh/year 600 kWh/year 1,400 kWh/year	(1.15) (2.28) (3.70) (3.70) (5.06) (1.70) (3.96)	$\begin{array}{c} (0.10) \\ (0.19) \\ (0.31) \\ (0.31) \\ (0.42) \end{array}$	5.11 7.63 8.67 10.19 30.10 36.77	3 4 7 8 9 9 29 36
36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 42: 42: 42: 42: 42: 42:	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop 5 Tear Drop 5 Dund Service e le Type of Fixture alide 0 Directional	Approximate Lumens 1,000 2,500 4,000 4,000 6,000 Approximate Lumens 12,000	kW Per Light 0.102 0.201 0.327 0.327 0.447 kW Per Light 0.150	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year 1,788 kWh/year 600 kWh/year	(1.15) (2.28) (3.70) (3.70) (5.06) (1.70)	(0.10) (0.19) (0.31) (0.31) (0.42) (0.14)	5.11 7.63 8.67 10.19 30.10	3 4 7 8 9 9 29 36
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36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 43: 42: 42: 42: 42: 42: 42: 42: 42: 42: 42	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop 5 Tear Drop 9 Dund Service e le Type of Fixture alide 9 Directional 9 Directional	Approximate Lumens 1,000 2,500 4,000 4,000 6,000 Approximate Lumens 12,000 32,000	kW Per Light 0.102 0.201 0.327 0.327 0.447 kW Per Light 0.150 0.350	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year 1,788 kWh/year 600 kWh/year 1,400 kWh/year	(1.15) (2.28) (3.70) (3.70) (5.06) (1.70) (3.96)	$\begin{array}{c} (0.10) \\ (0.19) \\ (0.31) \\ (0.31) \\ (0.42) \end{array}$	5.11 7.63 8.67 10.19 30.10 36.77	3 4 7 8 9 36 60 15 22
36.1	RLS Rest Overhead Rat Cod Incandes 42: 42: 42: 42: 42: 42: 42: 42: 42: 42:	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop 5 Tear Drop 5 ound Service e le Type of Fixture alide 0 Directional 0 Directional 0 Directional 0 Directional 0 Directional 0 Directional	Approximate Lumens 1,000 2,500 4,000 6,000 Approximate Lumens 12,000 32,000 107,800 4,000	kW Per Light 0.102 0.201 0.327 0.327 0.447 kW Per Light 0.150 0.350 1.080 0.060	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year 1,788 kWh/year 600 kWh/year 1,400 kWh/year 4,320 kWh/year	(1.15) (2.28) (3.70) (3.70) (5.06) $(1.70) (3.96) (12.23) (0.68)$	$\begin{array}{c} (0.10) \\ (0.19) \\ (0.31) \\ (0.31) \\ (0.42) \end{array}$ $\begin{array}{c} (0.14) \\ (0.33) \\ (1.02) \end{array}$ $(0.06) \end{array}$	5.11 7.63 8.67 10.19 30.10 36.77 61.66	3 4 7 8 9 9 29 36 60 15
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36.1	RLS Rest Overhead Rat Cod Incandes 42 42 42 42 43 42 42 43 42 43 42 43 42 43 42 43 42 43 42 43 43 43 43 43 43 43 43 43 43 43 43 43	ricted Lighting Service d Service (continued) e le Type of Fixture cent 1 Tear Drop 2 Tear Drop 4 Tear Drop 4 Tear Drop 5 Tear Drop 5 Tear Drop 5 Tear Drop 5 ound Service e le Type of Fixture alide ) Directional ) Directional ) Directional ssure Sodium ) Acorn ) Acorn 5 Colonial	Approximate Lumens 1,000 2,500 4,000 6,000 Approximate Lumens 12,000 32,000 107,800 4,000 4,000 4,000	kW Per Light 0.102 0.201 0.327 0.327 0.447 kW Per Light 0.150 0.350 1.080 0.060 0.060 0.060	408 kWh/year 804 kWh/year 1,308 kWh/year 1,308 kWh/year 1,308 kWh/year 1,788 kWh/year 1,400 kWh/year 4,320 kWh/year 240 kWh/year 240 kWh/year	(1.15) (2.28) (3.70) (3.70) (5.06) $(1.70) (3.96) (12.23) (0.68) (0.68) (0.68)$	$\begin{array}{c} (0.10) \\ (0.19) \\ (0.31) \\ (0.31) \\ (0.42) \end{array}$ $\begin{array}{c} (0.14) \\ (0.33) \\ (1.02) \end{array}$ $\begin{array}{c} (0.06) \\ (0.06) \end{array}$	5.11 7.63 8.67 10.19 30.10 36.77 61.66 15.11 22.31 10.79	3 4 7 8 9 9 36 60 15 22 10

### **KENTUCKY UTILITIES COMPANY**

### **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### **Question No. 17**

### Witness: Derek Rahn

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

A-17. See attached.

#### **Kentucky Utilities Company**

P.S.C. No. 17, First Revision of Original Sheet No. 5 Canceling P.S.C. No. 17, Original Sheet No. 5

Standard Rate

RS RESIDENTIAL SERVICE

#### APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

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

#### RATE

Basic Service Charge: \$10.75 per month

Plus an Energy Charge of:

\$ 0.08587, per kWh

Deleted: 0.08870

#### ADJUSTMENT CLAUSES

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

Fuel Adjustment Clause	Sheet No. 85
Off-System Sales Adjustment Clause	Sheet No. 88
Demand Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91
Home Energy Assistance Program	Sheet No. 92

#### MINIMUM CHARGE

The Basic Service Charge shall be the minimum charge.

#### DUE DATE OF BILL

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

#### LATE PAYMENT CHARGE

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

#### TERMS AND CONDITIONS

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

DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Deleted: 0.27646

#### **Kentucky Utilities Company**

P.S.C. No. 17, First Revision of Original Sheet No. 6 Canceling P.S.C. No. 17, Original Sheet No. 6

Standard Rate

RTOD-Energy Residential Time-of-Day Energy Service

#### APPLICABLE

In the territory served.

#### AVAILABILITY OF SERVICE

RTOD-Energy shall be available as an option to customers otherwise served under rate schedule RS.

- Service under this rate schedule is limited to a maximum of five hundred (500) customers taking service on RTOD-Energy and RTOD-Demand combined that are eligible for Rate RS. Company will accept customers on a first-come-first-served basis.
- 2) This service is also available to customers on rate schedule GS (where the GS service is used in conjunction with an RS service to provide service to a detached garage and energy usage is no more than 300 kWh per month) who demonstrate power delivered to such detached garage is consumed, in part, for the powering of low emission vehicles licensed for operation on public streets or highways. Such vehicles include:
  - a) battery electric vehicles or plug-in hybrid electric vehicles recharged through a charging outlet at Customer's premises,
  - b) natural gas vehicles refueled through an electric-powered refueling appliance at Customer's premises.
- 3) A customer electing to take service under this rate schedule who subsequently elects to take service under the standard Rate RS may not be allowed to return to this optional rate for 12 months from the date of exiting this rate schedule.

#### RATE

Basic Service Charge:	\$10.75 per month	
Plus an Energy Charge:		
Off Peak Hours:	\$ <u>0.05457, per kWh</u>	 Deleted: 0.05740
On Peak Hours:	\$ <u>0.027363</u> ,per kWh	

#### ADJUSTMENT CLAUSES

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

Fuel Adjustment Clause	Sheet No. 85
Off-System Sales Adjustment Clause	Sheet No. 88
Demand Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91
Home Energy Assistance Program	Sheet No. 92

#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Attachment to Response to Question No. 17 Page 3 of 19 Rahn

#### Kentucky Utilities Company

P.S.C. No. 17, First Revision of Original Sheet No. 7 Canceling P.S.C. No. 17, Original Sheet No. 7

Standard Rate

RTOD-Demand Residential Time-of-Day Demand Service

APPLICABLE

In the territory served.

#### AVAILABILITY OF SERVICE

RTOD-Demand shall be available as an option to customers otherwise served under rate schedule RS.

- Service under this rate schedule is limited to a maximum of five hundred (500) customers taking service on RTOD-Demand and RTOD-Energy combined that are eligible for Rate RS. Company will accept customers on a first-come-first-served basis.
- 2) This service is also available to customers on rate schedule GS (where the GS service is used in conjunction with an RS service to provide service to a detached garage and energy usage is no more than 300 kWh per month) who demonstrate power delivered to such detached garage is consumed, in part, for the powering of low emission vehicles licensed for operation on public streets or highways. Such vehicles include:
  - a) battery electric vehicles or plug-in hybrid electric vehicles recharged through a charging outlet at Customer's premises,
  - b) natural gas vehicles refueled through an electric-powered refueling appliance at Customer's premises.
- 3) A customer electing to take service under this rate schedule who subsequently elects to take service under the standard Rate RS may not be allowed to return to this optional rate for 12 months from the date of exiting this rate schedule.

#### RATE

Basic Service Charge:	\$10.75 per month	
Plus an Energy Charge:	\$ 0.04087, per kWh	 Deleted: 0.04370
Plus a Demand Charge: Off Peak Hours: On Peak Hours:	\$ 3.70 per kW \$13.05 per kW	

#### ADJUSTMENT CLAUSES

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

Fuel Adjustment Clause She	et No. 85
Off-System Sales Adjustment Clause She	eet No. 88
Demand Side Management Cost Recovery Mechanism She	eet No. 86
Environmental Cost Recovery Surcharge She	eet No. 87
Franchise Fee Rider She	eet No. 90
School Tax She	eet No. 91
Home Energy Assistance Program She	eet No. 92

#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Kentucky Utilities Company

I

		P.S.C. No. 17, First Rev	vision of Original Sheet No. 9			
		Canceling P.S.C	. No. 17, Original Sheet No. 9			
Standard Rate	VOLUNTEER FIRI	VFD E DEPARTMENT SERV	ICE			
APPLICABLE						
In all territory se	rved					
volunteer fire d schedule is at th	gle-phase delivery, in ac epartment qualifying fo e option of the customer	r aid under KRS 95A.2	sions of KRS 278.172, to any 62. Service under this rate mining whether service will be this load.			
DEFINITION						
To be eligible fo 1) ha 2) ha	r this rate a volunteer fire aving at least 12 membe aving at least one firefigh alf the members must be	nting apparatus, and	35:			
RATE						
Basic Service C	narge:	\$10.75 per month				
Plus an Energy	Charge of:	\$ 0.08587, per kWh		Deleted: (	0.08870	
Off-Syster Demand-S Environm	stment Clause n Sales Adjustment Clau Side Management Cost I ental Cost Recovery Sur Fee Rider	Recovery Mechanism	Sheet No. 85 Sheet No. 88 Sheet No. 86 Sheet No. 87 Sheet No. 90 Sheet No. 91			
MINIMUM CHARGE The Basic Servi	ce Charge shall be the n	ninimum charge.				
		xteen (16) business days	(no less than twenty-two (22)			
			late payment charge will be			
TERMS AND CONE Service will be f		y's Terms and Conditions	s applicable hereto.			
DATE OF ISSUE: De	cember 16, 2015					
DATE EFFECTIVE: Fe	oruary 1, 2016					

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

#### Kentucky Utilities Company

P.S.C. No. 17, First Revision of Original Sheet No. 10 Canceling P.S.C. No. 17, Original Sheet No. 10

Standard Rate

GS **GENERAL SERVICE RATE** 

APPLICABLE

In all territory served.

#### **AVAILABILITY OF SERVICE**

To general lighting and small power loads for secondary service.

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

#### RATE

Basic Service Charge:	\$25.00 per month for single-phase service \$40.00 per month for three-phase service	
Plus an Energy Charge of:	\$ 0.10143 per kWh	 Deleted: 0.10426

#### ADJUSTMENT CLAUSES

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

Fuel Adjustment Clause	Sheet No. 85
Off-System Sales Adjustment Clause	Sheet No. 88
Demand-Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

#### DETERMINATION OF MAXIMUM LOAD

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

#### MINIMUM CHARGE

The Basic Service Charge shall be the minimum charge.

DATE OF ISSUE:	December 16, 2015
DATE EFFECTIVE:	February 1, 2016
ISSUED BY:	/s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky
P.S.C. No. 17, First Revision of Original Sheet No. 12 Canceling P.S.C. No. 17, Original Sheet No. 12

Standard Rate

AES ALL ELECTRIC SCHOOL

APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

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

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

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

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

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

#### RATE

 

 Basic Service Charge:
 \$25.00 per meter per month for single-phase service \$40.00 per meter per month for three-phase service

 Plus an Energy Charge of:
 \$ 0.08086 per kWh

Deleted: 0.08369

#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 17, First Revision of Original Sheet No. 15 Canceling P.S.C. No. 17, Original Sheet No. 15

Standard Rate

PS POWER SERVICE

#### APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

This rate schedule is available for secondary or primary service.

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

#### RATE

Basic Service Charge per month:	Secondary \$90.00	Primary \$200.00	
Plus an Energy Charge per kWh of:	\$ <u>0.03289</u>	\$ <u>0.03163</u>	
Plus a Demand Charge per kW of: Summer Rate:			
(Five Billing Periods of May through September) Winter Rate:	\$19.05	\$ 19.51	
(All other months)	\$16.95	\$ 17.41	

Where the monthly billing demand is the greater of:

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

b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, or

c) a minimum of 60% of the contract capacity based on the maximum expected load on the system or on facilities specified by Customer.

#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. 2015-00221 dated December 7, 2015 Deleted: 0.03572

Deleted: 0.03446

			on of Original Sheet No. 20 o. 17, Original Sheet No. 20		
andard Rate	TODS TIME-OF-DAY SECONDARY	0			
APPLICABLE In all territory	/ served.				
customers w	<b>DF SERVICE</b> le is available for secondary service. Serv /hose 12-month-average monthly minimun ge monthly maximum loads do not exceed	loads exc			
RATE					
Basic Servic	e Charge per month:	\$200.00	)		
Plus an Ene	rgy Charge per kWh of:	\$ <u>0.03</u>	3244	Deleted: 0.03	527
Peak De Intermed	num Load Charge per kW of: mand Period diate Demand Period mand Period	. \$ 4.53	3		
a) the b) a r bil the mon a) the b) a i bil c) a	thly billing demand for the Peak and Interm e maximum measured load in the current b ninimum of 50% of the highest billing dema ling periods, and thly billing demand for the Base Demand P e maximum measured load in the current b minimum of 75% of the highest billing dema ling periods, or minimum of 75% of the contract capacity b e system or on facilities specified by Custo	illing period and in the p eriod is the illing period and in the p ased on the	, or receding eleven (11) monthly greater of: but not less than 250 kW, or receding eleven (11) monthly		
	CLAUSES ount computed at the charges specified at with the following:	oove shall b	e increased or decreased in		
Off-Sy Demai Enviro	djustment Clause stem Sales Adjustment Clause nd-Side Management Cost Recovery Mecha nmental Cost Recovery Surcharge nise Fee Rider I Tax	anism	Sheet No. 85 Sheet No. 88 Sheet No. 86 Sheet No. 87 Sheet No. 90 Sheet No. 91		
DATE OF ISSUE:	December 16, 2015				
DATE EFFECTIVE:	February 1, 2016				
SSUED BY:	/s/ Edwin R. Staton, Vice President State Regulation and Rates				

2015-00221 dated December 7, 2015

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P.S.C. No. 17, First Revision of Original Sheet No. 22 Canceling P.S.C. No. 17, Original Sheet No. 22

Standard Rate

TODP TIME-OF-DAY PRIMARY SERVICE

#### APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

This schedule is available for primary service to any customer: (1) who has a 12-month-average monthly minimum demand exceeding 250 kVA; and (2) whose new or additional load receives any required approval of Company's transmission operator.

#### RATE

Basic Service Charge per month:	\$300.00	
Plus an Energy Charge per kWh of:	\$ 0.03149, Deleted: 0.03432	
Plus a Maximum Load Charge per kVA of:		
Peak Demand Period	\$ 5.89	
Intermediate Demand Period	\$ 4.39	
Base Demand Period	\$ 3.34	
Where:	nadiate Demand Pariods is the greater of	

the monthly billing demand for the Peak and Intermediate Demand Periods is the greater of: a) the maximum measured load in the current billing period, or

b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, and

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

a) the maximum measured load in the current billing period but not less than 250 kVA, or
 b) a minimum of 75% of the highest billing demand in the preceding eleven (11) monthly billing periods, or

c) a minimum of 75% of the contract capacity based on the maximum load expected on the system or on facilities specified by Customer.

#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 17, First Revision of Original Sheet No. 25 Canceling P.S.C. No. 17, Original Sheet No. 25

Standard Rate

RTS RETAIL TRANSMISSION SERVICE

#### APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

This schedule is available for transmission service to any customer: (1) who has a 12-monthaverage monthly minimum demand exceeding 250 kVA; and (2) whose new or additional load receives any required approval of Company's transmission operator.

#### RATE

Basic Service Charge per month:	\$1,000.00	
Plus an Energy Charge per kWh of:	\$ 0.03074. Deleted: 0.03357	
Plus a Maximum Load Charge per kVA of: Peak Demand Period Intermediate Demand Period Base Demand Period	\$ 4.73 \$ 4.63 \$ 3.10	

Where:

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

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

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

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

#### ADJUSTMENT CLAUSES

F

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

Fuel Adjustment Clause	Sheet No. 85
Off-System Sales Adjustment Clause	Sheet No. 88
Demand-Side Management Cost Recovery Mechanism	Sheet No. 86
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY:	/s/ Edwin R. Staton, Vice President
	State Regulation and Rates
	Lexington, Kentucky

P.S.C. No. 17, First Revision of Original Sheet No. 30 Canceling P.S.C. No. 17, Original Sheet No. 30

#### FLS

Fluctuating Load Service

APPLICABLE In all territory served.

Standard Rate

#### AVAILABILITY OF SERVICE

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

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

#### BASE RATE

	Pri	mary_	Trans	mission	
Basic Service Charge per month:	\$1,0	00.00	\$1,0	00.00	
Plus an Energy Charge per kWh of:	\$	<u>0.03360</u>	\$	0.03061	 Deleted: 0.03643
Plus a Maximum Load Charge per kVA of:					<b>Deleted:</b> 0.03344
Peak Demand Period	\$	3.01	\$	3.01	
Intermediate Demand Period	\$	2.12	\$	2.12	
Base Demand Period	\$	2.17	\$	1.42	

Where:

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

a) the maximum measured load in the current billing period, or

b) a minimum of 50% of the highest billing demand in the preceding eleven (11) monthly billing periods, and

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

 a) the maximum measured load in the current billing period but not less than 20,000 kVA, or

b) a minimum of 75% of the highest billing demand in the preceding eleven (11) monthly billing periods, or

c) a minimum of 75% of the contract capacity based on the maximum load expected on the system or on facilities specified by Customer.

#### DATE OF ISSUE: December 16, 2015

#### DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

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### **Kentucky Utilities Company**

P.S.C. No. 17, First Revision of Original Sheet No. 35 Canceling P.S.C. No. 17, Original Sheet No. 35

#### Standard Rate

LS Lighting Service

#### APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

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

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

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

#### OVERHEAD SERVICE

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

#### RATE

Rate	Type of	Approximate	kW Per	Monthly	Charge			
Code	Fixture	Lumens	Light	Fixture Only	Ornamental			
High Press	ure Sodium							
462/472	Cobra Head	5,800	0.083	\$ <u>9.78</u>	\$ <u>12.96</u>			Deleted: 9.86
463/473	Cobra Head	9,500	0.117	10.17	13.59			
464/474	Cobra Head	22,000*	0.242	15.85	19.27	$\checkmark$	l	Deleted: 13.04
465/475	Cobra Head	50,000*	0.471	25.17	26.93		$\mathbf{n}$	Deleted: 10.28
487	Directional	9,500	0.117	\$10.02			$\langle \rangle$	Deleted: 13.70
488	Directional	22,000*	0.242	15.19		<u>_</u> ///	١Y	Deleted: 16.08
489	Directional	50,000*	0.471	<u>21.51</u>		_////	۱۲	Deleted: 19.50
428	Open Bottom	9,500	0.117	\$ <u>8.76</u>		_///		Deleted: 25.61
Metal Halid	9					-///		Deleted: 27.37
450	Directional	12,000*	0.150	\$ <u>15.99</u>			١Y	Deleted: 10.13
451	Directional	32,000*	0.350	22.47			11	Deleted: 15.42
452	Directional	107,800*	1.080	46.68,		_/// '	$\backslash \not\models$	Deleted: 21.95
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#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

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#### **Kentucky Utilities Company**

P.S.C. No. 17, First Revision of Original Sheet No. 35.1 Canceling P.S.C. No. 17, Original Sheet No. 35.1

Standard Rate

LS Lighting Service

#### **OVERHEAD SERVICE (continued)**

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

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

#### UNDERGROUND SERVICE

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

#### RATE

				Mc	onthly Charge	1			
Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Fixture Only	Decorative Smooth	Historic Fluted			
High Press	ure Sodium								
467	Colonial	5,800	0.083		\$ <u>12.06</u>				Deleted: 12.14
468	Colonial	9,500	0.117		<u>12.35</u>			_	<b>Deleted:</b> 12.46
401/411	Acorn	5,800	0.083		\$ <u>16.49</u>	\$ <u>23.55</u>		-	Deleted: 16.57
420/430	Acorn	9,500	0.117		16.90	24.09		$\checkmark$	Deleted: 23.63
414	Victorian	5,800	0.083			\$ <u>33.79</u>	$\langle$	$\leq$	Deleted: 17.01
415	Victorian	9,500	0.117			34.08		Y	Deleted: 24.20
492/476	Contemporary	5,800	0.083	\$ <u>17.04</u>	\$ <u>18.58</u>		$\backslash$	$\mathbf{Y}$	Deleted: 33.87
497/477 498/478	Contemporary Contemporary	9,500 22,000*	0.117 0.242	<u>16.89</u> 19.61	22.98 29.50		$ \longrightarrow $	Y	Deleted: 34.19
499/479	Contemporary	22,000 50,000*	0.242	23.71	<u>36.30</u>		$\exists N$	Y	Deleted: 17.12
300	Dark Sky	4,000	0.060		\$24.66			$\mathbf{X}$	Deleted: 18.66
301	Dark Sky	9,500	0.117		25.72			\\`	Deleted: 17.00
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DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

P.S.C. No. 17, First Revision of Original Sheet No. 35.2 Canceling P.S.C. No. 17, Original Sheet No. 35.2

Standard Rate		Lighting	LS g Service			
				Мо	onthly Charge	
Rate	Type of	Approximate	kW Per	Fixture	Decorative	Historic
Code	Fixture	Lumens	Light	Only	Smooth	Fluted
Metal Halide			-			
490/494	Contemporary	12,000*	0.150	\$ <u>17.31</u>	\$ <u>31.28</u>	
491/495	Contemporary	32,000*	0.350	24.35	38.31	
493/496	Contemporary	107,800*	1.080	50.30	64.26	

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

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

#### DUE DATE OF BILL

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

#### DETERMINATION OF ENERGY CONSUMPTION

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

#### ADJUSTMENT CLAUSES

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

Fuel Adjustment Clause	Sheet No. 85
Off-System Sales Adjustment Clause	Sheet No. 88
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

#### **TERM OF CONTRACT**

For a fixed term of not less than five (5) years and for such time thereafter until terminated by either party giving thirty (30) days prior written notice to the other when additional facilities are required. Cancellation by Customer prior to the initial five-year term will require Customer to pay to Company a lump sum equal to the monthly charge times the number of months remaining on the original five (5) year term.

#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

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### Kentucky Utilities Company

P.S.C. No. 17, First Revision of Original Sheet No. 36 Canceling P.S.C. No. 17, Original Sheet No. 36

Standard Rate

RLS Restricted Lighting Service

APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

Service under this rate schedule is restricted to those lighting fixtures/poles in service as of January 1, 2013, except where a spot replacement maintains the continuity of multiple fixtures/poles comprising a neighborhood lighting system or continuity is desired for a subdivision being developed in phases. Spot placement of restricted fixtures/poles is contingent on the restricted fixtures/poles being available from manufacturers. Spot replacement of restricted units will be made under the terms and conditions provided for under non-restricted Lighting Service Rate LS.

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

#### **OVERHEAD SERVICE**

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

RATE				Month	nly Charge	
Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Fixture Only	Fixture and Pole	
High Press	ure Sodium					
461/471	Cobra Head	4,000	0.060	\$ <u>8.47</u>	\$ <u>11.67</u>	Deleted: 8.53
409	Cobra Head	50,000	0.471	<u>13.12</u>		Deleted: 11.73
426	Open Bottom	5,800	0.083	8.46		
	·	0,000	0.000	0.40		<b>Deleted:</b> 13.56
Metal Halide 454	-	12 000	0.150		¢00.75	Deleted: 8.54
454	Directional Directional	12,000	0.150		\$ <u>20.75</u>	Deleted: 20.89
		32,000			27.23	Deleted. 20.09
459	Directional	107,800	1.080		<u>51.43</u>	Deleted: 27.56
Mercury Va						Deleted: 52.45
446/456	Cobra Head	7,000	0.207	\$ <u>10.57</u>	\$ <u>13.07</u>	
447/457	Cobra Head	10,000	0.294	<u>12.49</u>	<u>14.70</u>	Deleted: 10.77
448/458	Cobra Head	20,000	0.453	14.02	<u>16.48</u>	Deleted: 13.27
404	Open Bottom	7,000	0.207	11.67		Deleted: 12.77
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#### DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Standard Rate

P.S.C. No. 17, First Revision of Original Sheet No. 36.1 Canceling P.S.C. No. 17, Original Sheet No. 36.1

\$ 3.71

4.92

7.32

9.77

\$ <u>8.36</u>

RLS Restricted Lighting Service

#### **OVERHEAD SERVICE (continued)**

Incandescer	nt	
421	Tear Drop	1,000
422	Tear Drop	2,500
424/434	Tear Drop	4,000
425	Tear Drop	6,000

Where the location of existing poles was not suitable, or where there were no existing poles for mounting of lights, and Customer requested service under these conditions, Company may have furnished the requested facilities at an additional charge determined under the Excess Facilities Rider.

0.102

0.201

0.327

0.447

#### UNDERGROUND SERVICE

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

RATE				М	onthly Charge			
Rate Code	Type of Fixture	Approximate Lumens	kW Per Light	Wood Pole	Decorative Smooth	Historic Fluted		
Metal Halide	e							
460	Directional	12,000	0.150		\$ <u>29.96</u>		 	Deleted: 30.10
469	Directional	32,000	0.350		36.44		6	
470	Directional	107,800	1.080		60.64			Deleted: 36.77
							$\neg$	Deleted: 61.66
High Pressu	ure Sodium						C	)
440/410	Acorn	4,000	0.060		\$ <u>15.05</u>	\$ <u>22.25</u>	 -(	Deleted: 15.11
466	Colonial	4,000	0.060		\$ <u>10.73</u>			Deleted: 22.31
	- ·				•		 $\neg$	Deleted: 10.79
412	Coach	5,800	0.083		\$ <u>33.79</u>			Deleted: 33.87
413	Coach	9,500	0.117		34.08		Ļ	Deleted: 55.07
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DATE OF ISSUE:	December 16, 2015
DATE OF ISSUE:	December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

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#### P.S.C. No. 17, First Revision of Original Sheet No. 36.2 Canceling P.S.C. No. 17, Original Sheet No. 36.2 Standard Rate RLS **Restricted Lighting Service** UNDERGROUND SERVICE (continued) RATE **Monthly Charge** Rate Type of Approximate kW Per Decorative Historic Fluted Code Fixture Lumens Light Smooth 360 16.000 Granville 0.181 \$62.13 Deleted: 62.30 Granville units are restricted to installations for the City of London. DUE DATE OF BILL Payment is due within sixteen (16) business days (no less than twenty-two (22) calendar days) from the date of the bill. Billing for this service to be made a part of the bill rendered for other electric service. DETERMINATION OF ENERGY CONSUMPTION The kilowatt-hours will be determined as set forth on Sheet No. 67 of this Tariff. ADJUSTMENT CLAUSES The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following: Fuel Adjustment Clause Sheet No. 85 Off-System Sales Adjustment Clause Sheet No. 88 Environmental Cost Recovery Surcharge Sheet No. 87 Franchise Fee Rider Sheet No. 90 School Tax Sheet No. 91 **TERM OF CONTRACT** For a fixed term of not less than five (5) years and for such time thereafter until terminated by either party giving thirty (30) days prior written notice to the other when additional facilities are required. Cancellation by Customer prior to the initial five-year term will require Customer to pay to Company a lump sum equal to the monthly charge times the number of months remaining on the original five (5) year term. TERMS AND CONDITIONS 1. Service shall be furnished under Company's Terms and Conditions, except as set out herein. 2. All service and maintenance will be performed only during regular scheduled working hours of Company. Customer will be responsible for reporting outages and other operating faults, and the Company shall initiate service corrections within two (2) business days after such notification by Customer. DATE OF ISSUE: December 16, 2015 DATE EFFECTIVE: February 1, 2016 ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky Issued by Authority of an Order of the

Public Service Commission in Case No. 2015-00221 dated December 7, 2015

P.S.C. No. 17, First Revision of Original Sheet No. 37 Canceling P.S.C. No. 17, Original Sheet No. 37

Standard Rate

LE Lighting Energy Service

#### APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

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

#### RATE

\$<u>0.07045</u>,per kWh

#### ADJUSTMENT CLAUSES

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

Fuel Adjustment Clause	Sheet No. 85
Off-System Sales Adjustment Clause	Sheet No. 88
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

#### DUE DATE OF BILL

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

#### CONDITIONS OF DELIVERY

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

#### **TERMS AND CONDITIONS**

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

DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

ISSUED BY: /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. 2015-00221 dated December 7, 2015 Deleted: 0.07328

P.S.C. No. 17, First Revision of Original Sheet No. 38 Canceling P.S.C. No. 17, Original Sheet No. 38

Standard Rate

**Traffic Energy Service** 

TE

#### APPLICABLE

In all territory served.

#### AVAILABILITY OF SERVICE

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

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

RATE		
Basic Service Charge:	\$4.00 per delivery per month	
Plus an Energy Charge of:	\$ <u>0.08457</u> ,per kWh	<b>Deleted:</b> 0.08740

#### ADJUSTMENT CLAUSES

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

Fuel Adjustment Clause Off-System Sales Adjustment Clause	Sheet No. 85 Sheet No. 88
Environmental Cost Recovery Surcharge	Sheet No. 87
Franchise Fee Rider	Sheet No. 90
School Tax	Sheet No. 91

#### MINIMUM CHARGE

The Basic Service Charge shall be the minimum charge.

#### DUE DATE OF BILL

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

#### CONDITIONS OF SERVICE

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

DATE OF ISSUE: December 16, 2015

DATE EFFECTIVE: February 1, 2016

**ISSUED BY:** /s/ Edwin R. Staton, Vice President State Regulation and Rates Lexington, Kentucky

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### **Question No. 18**

### Witness: Delbert Billiter

- Q-18. a. State whether KU regularly compares the price of its coal purchases with those paid by other electric utilities.
  - b. If yes, state:
    - (1) How KU's prices compare with those of other utilities. If the comparison includes months outside of the review period, a comparison limited to the review period should be provided separately. Provide a copy of the source documents and calculations used to support the amounts used in the comparison and include all prices used in the comparison in cents per MMBtu; and
    - (2) The utilities that are included in this comparison and their locations.
- A-18. a. Yes.
  - b. KU compares pricing of its coal purchases with neighboring utilities from data that is compiled by the ABB Inc. Ventyx database from the EIA-923 Power Plant Operations Report. The utilities included in the comparison are shown on the list found on page 1 and the chart found of page 2 (the supporting data is contained in pages 3 6) of the Attachment to this response and for the period of May 1, 2016 through October 31, 2016.

# Attachment to Response to Question No. 18 Page 1 of 6 Billiter

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

Attachment to Response to Question No. 18 Page 2 of 6 Billiter



Utility Price Comparison May 16 - Oct 16

# Attachment to Response to Question No. 18 Page 3 of 6 Billiter

Plant Operator Name	Reported Source Name	Quantity (000s tons)	Btu/lb	lbsSO2/mmBtu	Delivered Fuel Price Cents/mmBtu
AmerenEnergy Resources Generating Co	PEABODY COAL SALES	623	8800	0.45	195.18
AmerenEnergy Resources Generating Co	ARCH	739	8945	0.56	162.48
	ĺ	1,362	8878	0.51	176.62
Appalachian Power Co	SOUTHWESTERN ENERGY SERVICE	23	12497	1.38	230.60
Appalachian Power Co	SOUTHERN COAL SALES CORP	149	12132	1.37	230.18
Appalachian Power Co	CONTURA ENERGY INC	28	13148	4.03	222.56
Appalachian Power Co	CONSOLIDATION COAL CO	801	12788	5.59	237.43
Appalachian Power Co	CONSOL	84	12976	3.97	160.13
Appalachian Power Co	BLACKHAWK MINING LLC	201	12399	1.43	221.17
Appalachian Power Co	AMERICAN ENERGY	1,764	12582	6.81	190.94
Appalachian Power Co	ALPHA COAL	910	12233	1.61	233.63
	Ι	3,960	12529	4.78	212.84
Big Rivers Electric Corp	TTCP PETCOKE	17	14150	7.35	145.50
Big Rivers Electric Corp	RHINO ENERGY	124	11383	4.58	214.44
Big Rivers Electric Corp	RHINO	59	11369	4.54	214.87
Big Rivers Electric Corp	PEABODY COAL SALES	190	11106	5.63	231.68
Big Rivers Electric Corp	KENAMERICA RESOURCES	247	11802	4.84	215.89
Big Rivers Electric Corp	FORESIGHT COAL SALES	132	11002	6.01	178.50
Big Rivers Electric Corp	ALLIANCE COAL	843	11818	5.32	241.75
	[	1,613	11640	5.28	227.44
Dayton Power & Light Co (The)	WILLIAMSON ENERGY	816	11842	4.73	220.05
Dayton Power & Light Co (The)	WHITE OAK RESOURCES LLC	378	11895	4.26	205.05
Dayton Power & Light Co (The)	TUNNEL RIDGE LLC	65	12605	4.23	178.37
Dayton Power & Light Co (The)	TRAFIGURA	201	11804	4.35	178.24
Dayton Power & Light Co (The)	RIVER TRADING	47	11853	2.33	166.43
Dayton Power & Light Co (The)	NOBLE ENERGY MARKETING	8	12030	1.48	172.10
Dayton Power & Light Co (The)	NOBLE AMERICAS GAS & POWER	7	12005	1.53	172.20
Dayton Power & Light Co (The)	MERCURIA	53	11846	4.75	174.42
Dayton Power & Light Co (The)	KOLMAR AMERICAS INC	16	11534	2.07	155.72
Dayton Power & Light Co (The)	FORESIGHT COAL SALES	250	11842	4.74	187.74
Dayton Power & Light Co (The)	EMERALD	13	11818	2.41	168.08
Dayton Power & Light Co (The)	CONSOL	108	12930	4.28	167.17
Dayton Power & Light Co (The)	COLONA	136	12907	4.29	167.24
Dayton Power & Light Co (The)	COAL NETWORK	71	12006	2.13	167.28
Dayton Power & Light Co (The)	AMERICAN COAL	76	11844	4.48	153.58
Dayton Power & Light Co (The) Dayton Power & Light Co (The)	ALPHA COAL ALLIANCE COAL	423 344	13085 12322	4.51 4.80	151.56 160.10
Dayton Power & Light Co (me)		3,012	12322	4.60	184.95
Duke Energy Indiana	WISE ENERGY GROUPLLC	3	12010	1.02	222.20
Duke Energy Indiana	SUNRISE COAL SALES	23	11505	6.12	260.30
Duke Energy Indiana	SOLAR SOURCES	529	11330	4.41	192.93
Duke Energy Indiana	PEABODY COAL SALES	2,451	11127	4.88	201.39
Duke Energy Indiana	MODELED - SOLAR SOURCES	323	11321	4.43	192.80
Duke Energy Indiana		9 265	11187	1.50	201.70
Duke Energy Indiana			11684	5.20	319.71
Duke Energy Indiana	DOMINION COECLERICI COAL NETWORK	5 16	11521 11680	1.18 1.30	201.40 206.14
Duke Energy Indiana Duke Energy Indiana	BLACKHAWK MINING LLC	15	11680	1.30	206.14 214.60
Duke Energy Indiana	BLACK BEAUTY	953	12005	6.14	209.94
Duke Energy Indiana	ALLIANCE COAL	953 702	11490	2.30	367.66
Bailo Ellorgy Indiana		5,293	11324	4.68	230.64
	L	0,283	11524	4.00	230.04

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		Quantity (000s	D: ///	II. 000/	Delivered Fuel Price
Plant Operator Name	Reported Source Name	tons) 411	Btu/lb 11490	IbsSO2/mmBtu 5.16	Cents/mmBtu 223.99
Duke Energy Kentucky	RIVER VIEW COAL RHINO ENERGY	411 16	11490	5.16	223.99 184.40
Duke Energy Kentucky	PEABODY COAL TRADE	5	12398	4.54 3.21	184.40
Duke Energy Kentucky		5 80		5.72	201.02
Duke Energy Kentucky	FORESIGHT COAL SALES	80 30	11212 12993	5.72	
Duke Energy Kentucky		30 171	12993	4.70	195.15 184.06
Duke Energy Kentucky	CONSOL				
Duke Energy Kentucky	ARMSTRONG COAL ALPHA COAL	76 69	11747 13113	4.72 4.45	187.12 194.57
Duke Energy Kentucky					
Duke Energy Kentucky	ALLIANCE COAL	77	12594	4.41	180.20
		934	12016	4.79	203.33
East Kentucky Power Coop	WHITE OAK RESOURCES LLC	122	11534	4.86	253.02
East Kentucky Power Coop	WHITE COUNTY COAL	122	11464	5.17	266.08
East Kentucky Power Coop	RIVER VIEW COAL	170	11878	4.81	241.53
East Kentucky Power Coop	PEABODY COAL SALES	174	11103	5.58	239.55
East Kentucky Power Coop	PATRIOT COAL SALES	16	11545	5.13	219.90
East Kentucky Power Coop	OXFORD MINING CO	396	11449	6.50	193.82
East Kentucky Power Coop	NALLY & HAMILTON	20	12450	3.01	232.30
East Kentucky Power Coop	FORESIGHT COAL SALES	302	11828	4.76	227.68
East Kentucky Power Coop	BOWIE REFINED COAL	100	11710	3.58	226.22
East Kentucky Power Coop	BLACKHAWK MINING LLC	25	12351	3.11	227.10
East Kentucky Power Coop	B & W RESOURCES	37	12011	2.33	289.13
East Kentucky Power Coop	B & N COAL	234	11200	7.95	179.38
East Kentucky Power Coop	ALLIANCE COAL	26	12601	4.21	219.68
		1,746	11565	5.54	221.90
Electric Energy Inc	NORTH ANTELOPE	16	8520	0.42	243.85
Electric Energy Inc	BLACK THUNDER WEST	95	8661	0.42	243.85
Electric Energy Inc	BLACK THUNDER ARCH	287	8699	0.72	231.75
Electric Energy Inc	BELLAYRE	48	8520	0.54	231.75 216.55
Electric Energy Inc	ANTELOPE	40 383	8673	0.56	216.55
	ANTELOFE	828	8669	0.56	246.81
Hoosier Energy Rural Electric Coop Inc	SUNRISE COAL SALES	652	11712	5.75	203.68
Hoosier Energy Rural Electric Coop Inc	PEABODY COAL SALES	767	11122	5.49	196.59
		1,418	11393	5.61	199.94
Illinois Power Generating Co	PEABODY COAL SALES	968	8754	0.44	200.70
Illinois Power Generating Co	CLOUD PEAK	35	8851	0.61	231.80
Illinois Power Generating Co	BLACK THUNDER WEST	52	8884	0.61	231.80
Illinois Power Generating Co	BLACK THUNDER ARCH	123	8821	0.62	231.80
Illinois Power Generating Co	BELLAYRE	463	8752	0.49	200.70
<b>3</b>		1,642	8765	0.48	204.34
Indiana Kentucky Electric Corp	RESOURCE FUELS	488	11491	5.15	259.64
Indiana Kentucky Electric Corp	KNIGHTHAWK	457	11207	5.24	197.92
Indiana Kentucky Electric Corp	FORESIGHT COAL SALES	201	11356	5.45	190.56
		1,146	11354	5.24	223.24

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Indiana Michigan Power Co         RWE TRADING AMERICASINC         39         11972         1.57           Indiana Michigan Power Co         PEABODY COAL SALES         1,821         8718         0.48           Indiana Michigan Power Co         NOBLE GAS MARKETING         19         12141         1.42           Indiana Michigan Power Co         NOBLE ENERGY MARKETING         113         12066         1.52           Indiana Michigan Power Co         CLOUD PEAK         181         8841         0.53           Indiana Michigan Power Co         ARCH         245         8932         0.61           Indiana Michigan Power Co         ARCH         230         12165         1.34           Indiana Michigan Power Co         ARCH         230         12165         1.34           Indianapolis Power & Light         TRIAD         179         11631         5.95           Indianapolis Power & Light         COAL SALES         284         11818         5.50           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         COAL SALES         198         11717         2.40           Indianapolis Power Co         NOBLE GAS MARKETING         11         12200         1.46	Price Cents/mmBtu 245.65 227.16 223.80 225.21 213.86 215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15 202.75
Indiana Michigan Power Co         PEABODY COAL SALES         1,821         8718         0.48           Indiana Michigan Power Co         NOBLE GAS MARKETING         19         12141         1.42           Indiana Michigan Power Co         NOBLE ENERGY MARKETING         113         12066         1.52           Indiana Michigan Power Co         CLOUD PEAK         181         8841         0.53           Indiana Michigan Power Co         ARCH         245         8932         0.61           Indiana Michigan Power Co         ARCH         230         12165         1.34           Indiana Michigan Power Co         ARCH         245         8932         0.64           Indianapolis Power & Light         TRIAD         179         11631         5.95           Indianapolis Power & Light         SUNRISE COAL SALES         284         11818         5.50           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         COAL SALES         178         11450         5.24           Kentucky Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         11         12200         1.46 <th>227.16 223.80 225.21 213.86 215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15</th>	227.16 223.80 225.21 213.86 215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15
Indiana Michigan Power Co         NOBLE GAS MARKETING         19         12141         1.42           Indiana Michigan Power Co         NOBLE ENERGY MARKETING         113         12066         1.52           Indiana Michigan Power Co         CLOUD PEAK         181         8841         0.53           Indiana Michigan Power Co         ARCH         245         8932         0.61           Indiana Michigan Power Co         ALPHA COAL         230         12165         1.34           Indianapolis Power & Light         TRIAD         179         11631         5.95           Indianapolis Power & Light         SUNRISE COAL SALES         284         11818         5.50           Indianapolis Power & Light         COALSALES         178         11340         5.71           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         11         12200         1.46	223.80 225.21 213.86 215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15
Indiana Michigan Power Co         NOBLE ENERGY MARKETING         113         12066         1.52           Indiana Michigan Power Co         CLOUD PEAK         181         8841         0.53           Indiana Michigan Power Co         ARCH         245         8932         0.61           Indiana Michigan Power Co         ALPHA COAL         230         12165         1.34           Indianapolis Power & Light         TRIAD         179         11631         5.95           Indianapolis Power & Light         SUNRISE COAL SALES         284         11818         5.50           Indianapolis Power & Light         COALSALES         988         11278         5.52           Indianapolis Power & Light         COAL SALES         988         11278         5.52           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         ALLANCE COAL         198         11717         2.40           Kentucky Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         11         12200         1.46 </td <td>225.21 213.86 215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15</td>	225.21 213.86 215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15
Indiana Michigan Power Co         CLOUD PEAK         181         8841         0.53           Indiana Michigan Power Co         ARCH         245         8932         0.61           Indiana Michigan Power Co         ALPHA COAL         230         12165         1.34           2,649         9262         0.64         230         12165         1.34           Indianapolis Power & Light         SUNRISE COAL SALES         284         11818         5.50           Indianapolis Power & Light         COAL SALES         284         11818         5.50           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         COAL SALES         198         11717         2.40           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         ALPHA COAL         588         12137         1.37           Kentucky Utilities Co         TRIAD         321         111615         6.01           Ken	213.86 215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15
Indiana Michigan Power Co         ARCH         245         8932         0.61           Indiana Michigan Power Co         ALPHA COAL         230         12165         1.34           Indianapolis Power & Light         TRIAD         179         11631         5.95           Indianapolis Power & Light         SUNRISE COAL SALES         284         11818         5.50           Indianapolis Power & Light         COALSALES LLC         988         11278         5.52           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Kentucky Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         COSUSUDATION COAL CO         668         12674         6.24           Kentucky Utilities Co         TRIAD         321         11615         6.01           Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59	215.59 273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15
Indiana Michigan Power Co         ALPHA COAL         230         12165         1.34           Indianapolis Power & Light         TRIAD         2,649         9262         0.64           Indianapolis Power & Light         SUNRISE COAL SALES         284         11818         5.50           Indianapolis Power & Light         COALSALES LLC         988         11278         5.52           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         11         12200         1.46           Kentucky Power Co         CONSOLIDATION COAL CO         668         12674         6.24           Kentucky Utilities Co         TRIAD         321         11615         6.01           Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59           Kentucky Utilities Co         PEABODY COAL TRADE         34         10143         2.30     <	273.93 230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15
Light         TRIAD         179         11631         5.95           Indianapolis Power & Light         SUNRISE COAL SALES         284         11818         5.50           Indianapolis Power & Light         COALSALES LLC         988         11278         5.52           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         COAL SALES         178         11340         5.71           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Indianapolis Power & Light         ALLIANCE COAL         198         11717         1.52           Kentucky Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         ALPHA COAL         588         12337         1.37           Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59	230.82 206.50 220.80 218.43 218.09 209.25 216.57 223.70 228.15
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Indianapolis Power & LightSUNRISE COAL SALES284118185.50Indianapolis Power & LightCOALSALES LLC988112785.52Indianapolis Power & LightCOAL SALES178113405.71Indianapolis Power & LightALLIANCE COAL198117172.40Indianapolis Power & LightALLIANCE COAL198117172.40Kentucky Power CoNOBLE GAS MARKETING11122001.46Kentucky Power CoNOBLE ENERGY MARKETING90119771.52Kentucky Power CoCONSOLIDATION COAL CO668126746.24Kentucky Power CoALPHA COAL588121371.37I.358123913.78378378Kentucky Utilities CoRHINO ENERGY397113804.59Kentucky Utilities CoPEABODY COAL TRADE34101432.30Kentucky Utilities CoFORESIGHT COAL SALES347117664.70Kentucky Utilities CoFORESIGHT COAL SALES347117664.70Kentucky Utilities CoEAGLE RIVER COAL86126696.14Kentucky Utilities CoEAGLE RIVER COAL86126696.14Kentucky Utilities CoEAGLE RIVER COAL370111785.65	220.80 218.43 218.09 209.25 216.57 223.70 228.15
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Indianapolis Power & Light         ALLIANCE COAL         198         11717         2.40           Kentucky Power Co         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         90         11977         1.52           Kentucky Power Co         CONSOLIDATION COAL CO         668         12674         6.24           Kentucky Power Co         ALPHA COAL         588         12137         1.37           I,358         12391         3.78         1,358         12391         3.78           Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59           Kentucky Utilities Co         PEABODY COAL TRADE         34         10143         2.30           Kentucky Utilities Co         FORESIGHT COAL SALES         347         11766         4.70           Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         EAGLE RIVER COAL         370         111766         4.70	209.25 216.57 223.70 228.15
Image: Noble Sector         NOBLE GAS MARKETING         11         12200         1.46           Kentucky Power Co         NOBLE ENERGY MARKETING         90         11977         1.52           Kentucky Power Co         CONSOLIDATION COAL CO         668         12674         6.24           Kentucky Power Co         ALPHA COAL         588         12137         1.37           Kentucky Utilities Co         TRIAD         321         11615         6.01           Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59           Kentucky Utilities Co         PEABODY COAL TRADE         34         10143         2.30           Kentucky Utilities Co         FORESIGHT COAL SALES         347         11766         4.70           Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         EAGLE RIVER COAL         370         11178         5.65	216.57 223.70 228.15
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Kentucky Power CoNOBLE ENERGY MARKETING90119771.52Kentucky Power CoCONSOLIDATION COAL CO668126746.24Kentucky Power CoALPHA COAL588121371.371,358123913.78Kentucky Utilities CoKentucky Utilities CoRHINO ENERGY397113804.59Kentucky Utilities CoPEABODY COAL TRADE34101432.30Kentucky Utilities CoFORESIGHT COAL SALES347117664.70Kentucky Utilities CoEAGLE RIVER COAL86126696.14Kentucky Utilities CoEAGLE RIVER COAL370111785.65	228.15
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Kentucky Power CoCONSOLIDATION COAL CO668126746.24Kentucky Power CoALPHA COAL588121371.371,358123913.78Kentucky Utilities CoKentucky Utilities CoRHINO ENERGY397113804.59Kentucky Utilities CoPEABODY COAL TRADE34101432.30Kentucky Utilities CoFORESIGHT COAL SALES347117664.70Kentucky Utilities CoEAGLE RIVER COAL86126696.14Kentucky Utilities CoCOALSALES LLC370111785.65	
Kentucky Power Co         ALPHA COAL         588         12137         1.37           1,358         12391         3.78         1.358         12391         3.78           Kentucky Utilities Co         TRIAD         321         11615         6.01           Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59           Kentucky Utilities Co         PEABODY COAL TRADE         34         10143         2.30           Kentucky Utilities Co         FORESIGHT COAL SAILES         347         11766         4.70           Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         COALSALES LLC         370         11178         5.65	
Instant         Instant <thinstant< th=""> <thinstant< th=""> <thi< td=""><td>264.52</td></thi<></thinstant<></thinstant<>	264.52
Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59           Kentucky Utilities Co         PEABODY COAL TRADE         34         10143         2.30           Kentucky Utilities Co         KOLMAR AMERICAS INC         29         10348         1.65           Kentucky Utilities Co         FORESIGHT COAL SALES         347         11766         4.70           Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         COALSALES LLC         370         11178         5.65	230.76
Kentucky Utilities Co         RHINO ENERGY         397         11380         4.59           Kentucky Utilities Co         PEABODY COAL TRADE         34         10143         2.30           Kentucky Utilities Co         KOLMAR AMERICAS INC         29         10348         1.65           Kentucky Utilities Co         FORESIGHT COAL SALES         347         11766         4.70           Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         COALSALES LLC         370         11178         5.65	260.84
Kentucky Utilities CoPEABODY COAL TRADE34101432.30Kentucky Utilities CoKOLMAR AMERICAS INC29103481.65Kentucky Utilities CoFORESIGHT COAL SALES347117664.70Kentucky Utilities CoEAGLE RIVER COAL86126696.14Kentucky Utilities CoCOALSALES LLC370111785.65	229.29
Kentucky Utilities Co         KOLMAR AMERICAS INC         29         10348         1.65           Kentucky Utilities Co         FORESIGHT COAL SALES         347         11766         4.70           Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         COALSALES LLC         370         11178         5.65	148.24
Kentucky Utilities Co         FORESIGHT COAL SALES         347         11766         4.70           Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         COALSALES LLC         370         11178         5.65	172.10
Kentucky Utilities Co         EAGLE RIVER COAL         86         12669         6.14           Kentucky Utilities Co         COALSALES LLC         370         11178         5.65	197.91
	192.79
Koptusku Litilitias Co. BOWIE 22 14060 2.00	213.53
Kentucky Utilities Co BOWIE 23 11960 3.08	254.42
Kentucky Utilities Co ARMSTRONG COAL 871 11283 5.73	173.01
Kentucky Utilities Co AMERICAN COAL 250 11747 4.21	221.19
Kentucky Utilities Co ALLIANCE COAL 444 11511 4.49	226.02
3,171 11459 5.12	208.72
Louisville Gas & Electric Co RHINO ENERGY 33 11346 4.68	228.07
Louisville Gas & Electric Co PEABODY COAL TRADE 21 10026 2.35	147.95
Louisville Gas & Electric Co KOLMAR AMERICAS INC 20 10269 1.66	173.27
Louisville Gas & Electric Co FORESIGHT COAL SALES 138 11816 4.63	195.70
Louisville Gas & Electric Co EAGLE RIVER COAL 54 12643 5.74	193.26
Louisville Gas & Electric Co COALSALES LLC 18 11101 5.65	178.58
Louisville Gas & Electric Co ARMSTRONG COAL 571 11277 5.78	
Louisville Gas & Electric Co ARCH 158 8925 0.58	178.11
Louisville Gas & Electric Co AMERICAN COAL 199 11726 4.22	178.11 217.77
Louisville Gas & Electric Co ALLIANCE COAL 2,067 11760 5.51	
3,279 11526 5.16	217.77

# Attachment to Response to Question No. 18 Page 6 of 6 Billiter

Diani Orantin Nama	Departed General Name	Quantity (000s	Btu/lb	lbsSO2/mmBtu	Delivered Fuel Price
Plant Operator Name Monongahela Power Co	Reported Source Name TUNNEL RIDGE LLC	<b>tons)</b> 98	12604	4.29	Cents/mmBtu 333.26
Monongahela Power Co	MEPCO OPERATIONS	98 509	12004	4.29	217.47
Monongahela Power Co	FIRSTENERGY	509 449	12074	4.56 5.32	172.25
	CONSOL	2.522	12916	5.32	237.62
Monongahela Power Co Monongahela Power Co	ARCH	2,522	12404	1.82	140.20
0		ے 1,344	12965	7.08	206.88
Monongahela Power Co		,			
Monongahela Power Co		328 5.252	12592 12517	4.45	238.94
	L	5,252	12517	5.70	225.43
Northern Indiana Public Service Co	SUNRISE COAL SALES	468	11672	5.69	228.73
Northern Indiana Public Service Co	PEABODY COAL SALES	406	8786	0.45	228.70
Northern Indiana Public Service Co	CONSOL	148	12932	3.90	216.01
Northern Indiana Public Service Co	COALSALES LLC	754	10968	5.06	254.48
Northern Indiana Public Service Co	ARCH	682	8998	0.55	212.52
Northern Indiana Public Service Co	ALLIANCE COAL	46	11740	4.24	197.40
	Г	2,503	10340	3.12	231.51
	-				
Ohio Valley Electric Corp	AMERICAN ENERGY	1,163	12297	6.77	191.41
	l	1,163	12297	6.77	191.41
Ownersham Municipal I Hilling		450	44040	4.00	405.00
Owensboro Municipal Utilities	WEST KY MINERALS	156	11218	4.93	195.00
Owensboro Municipal Utilities	PEABODY COAL SALES	84	11222	6.82	197.28
Owensboro Municipal Utilities	KENAMERICA RESOURCES	40	11743	4.85	195.54
Owensboro Municipal Utilities	ARMSTRONG	186	11868	4.53	199.00
	L	467	11523	5.11	197.09
Southern Indiana Gas & Electric Co	SUNRISE COAL SALES	672	11601	5.99	229.15
		672	11601	5.99	229.15
Tennessee Valley Authority	PEABODY COAL TRADE	11	11050	4.83	247.00
Tennessee Valley Authority	PEABODY COAL SALES	2,519	10063	2.06	204.96
Tennessee Valley Authority	MR COAL MARKETING & TRADINGLL	46	12321	1.66	215.34
Tennessee Valley Authority	MR COAL MARKETING	58	12279	1.74	215.62
Tennessee Valley Authority	KOPPER GLO	82	12838	1.97	223.10
Tennessee Valley Authority	KENAMERICA RESOURCES	786	11775	4.84	202.32
Tennessee Valley Authority	FORESIGHT COAL SALES	521	11770	4.69	219.22
Tennessee Valley Authority	EDF TRADING	24	13100	1.16	280.56
Tennessee Valley Authority	COECLERICI COAL NETWORK	15	8761	0.75	172.12
Tennessee Valley Authority	CLOUD PEAK	744	8865	0.52	197.71
Tennessee Valley Authority	BLACKHAWK MINING LLC	59	12657	1.41	236.35
Tennessee Valley Authority	B & W RESOURCES	43	12251	1.79	242.94
Tennessee Valley Authority	ARMSTRONG COAL	1,037	11772	4.64	230.63
Tennessee Valley Authority	ARCH	3,943	8905	0.67	195.07
Tennessee Valley Authority	ALPHA COAL	23	12197	1.49	283.38
Tennessee Valley Authority	ALLIANCE COAL	1,470	11759	4.93	264.81
Tennessee Valley Authority	ALLIANCE COAL	957	12541	4.99	267.10
		12,338	10406	2.59	219.63

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### **Question No. 19**

### Witness: Delbert Billiter

- Q-19. For the period under review by generating station, list the percentages of KU's coal delivered by:
  - a. Rail;
  - b. Truck;
  - c. Barge;
  - d. Other (specify)

# A-19. E.W. Brown Station

- a. Rail 87%
- b. Truck 13%
- c. Barge NA

### **Ghent Station**

- a. Rail NA
- b. Truck NA
- c. Barge 100%

### **Trimble Station/PRB**

- a. Rail-NA
- b. Truck NA
- c. Barge 100%

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

Case No. 2017-00003

## **Question No. 20**

## Witness: Delbert Billiter

Q-20. For each generating station, state the methods of coal delivery currently available.

A-20. E.W. Brown - Rail and Truck

Ghent – Barge

Trimble County/PRB - Barge

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### Question No. 21

### Witness: Delbert Billiter

- Q-21. a. State KU's coal inventory level in tons and in number of days' supply as of October 31, 2016. Provide this information by generating station and in the aggregate.
  - b. Describe the criteria used to determine the number of days' supply.
  - c. Compare KU's coal inventory as of October 31, 2016 to its inventory target for that date for each plant and for total inventory.
  - d. If actual coal inventory exceeds inventory target by 10 days' supply, state the reasons for the additional inventory.
  - e. (1) State whether KU expects any significant changes in its current coal inventory target within the next 12 months.
    - (2) If the response is yes, state the expected change and the reasons for this change.
- A-21. a. As of October 31, 2016:

EW Brown	221,071 Tons; 35 Days	Target 30-55 Days
Ghent	931,067 Tons; 44 Days	Target 20-39 Days
Trimble County*	472,584 Tons; 75 Days	Target 21-44 Days
Total	1,624,722 Tons; 49 Days	Target 23-44 Days

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

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

- c. See (a) above.
- d. A combination of low load and low gas prices caused system coal consumption to be lower than budget before and during the review period. Increased gas generation, primarily due to CR7, displaced coal-fired generation during the review period.
- e. (1) KU does not expect significant changes in its current coal inventory target levels; however, during the Companies' planning cycle minor adjustments may be made to the inventory targets if warranted.
  - (2) Not applicable.

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

## Question No. 22

## Witness: Delbert Billiter

- Q-22. a. State whether KU has audited any of its coal contracts during the period from May 1, 2016 to October 31, 2016.
  - b. If the response is yes, for each audited contract:
    - (1) Identify the contract;
    - (2) Identify the auditor;
    - (3) State the results of the audit; and
    - (4) Describe the actions that KU took as a result of the audit.
- A-22 a. No. KU has not conducted any financial audits of coal companies. KU's current coal contracts either contain a fixed price or a portion of the base contract price is adjusted using government published indices to reflect the changes in the cost. These agreements thus do not require audits. Either KU's Manager Fuels Technical Services or KU's Mining Engineer conducts scheduled on-site reviews and inspections of the mining operations, scales and sampling systems of each vendor up to twice a year, and likewise may conduct unscheduled visits. Additionally, KU employees may visit a vendor as needed to address problems and issues at any time.

As noted in previous filings, governmental impositions may be imposed on the mining industry. As claims for governmental impositions are received, LG&E reviews and may use consultants to review the claims.

Alliance Coal, LLC in accordance with the provisions of Section 8.3 New Impositions of Agreement J09002, requested a price increase for calendar year 2015. The Parties agreed to a settlement. A copy of the Settlement Agreement effective December 1, 2016 is being filed with the Commission under seal pursuant to a Petition for Confidential Protection.

Alliance Coal, LLC in accordance with the provisions of Section 8.3 New Impositions of Agreement J12007, requested a price increase for calendar year 2015. The Parties agreed to a settlement. A copy of the Settlement Agreement effective December 1, 2016 is being filed with the Commission under seal pursuant to a Petition for Confidential Protection.

Alliance Coal, LLC in accordance with the provisions of Section 8.4 New Impositions of Agreement J13004, requested a price increase for calendar year 2015. The Parties agreed to a settlement. A copy of the Settlement Agreement effective December 1, 2016 is being filed with the Commission under seal pursuant to a Petition for Confidential Protection.

Alliance Coal, LLC in accordance with the provisions of Section 8.4 New Impositions of Agreement J14011, requested a price increase for calendar year 2015. The Parties agreed to a settlement. A copy of the Settlement Agreement effective December 1, 2016 is being filed with the Commission under seal pursuant to a Petition for Confidential Protection.

b. Not applicable.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

## Case No. 2017-00003

### **Question No. 23**

## Witness: Derek Rahn

- Q-23. a. State whether KU has received any customer complaints regarding its FAC during the period from May 1, 2016 to October 31, 2016.
  - b. If the response is yes, for each complaint, state:
    - (1) The nature of the complaint; and
    - (2) KU's response.
- A-23. a. No.
  - b. Not applicable.

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### **Question No. 24**

### Witness: Delbert Billiter

- Q-24. a. State whether KU is currently involved in any litigation with its current or former coal suppliers.
  - b. If the response is yes, for each litigation:
    - (1) Identify the coal supplier;
    - (2) Identify the coal contract involved;
    - (3) State the potential liability or recovery to KU;
    - (4) List the issues presented; and
    - (5) Provide a copy of the complaint or other legal pleading that initiated the litigation and any answers or counterclaims. If a copy has previously been filed with the Commission, provide the date on which it was filed and the case in which it was filed.
  - c. State the current status of all litigation with coal suppliers.
- A-24. a. KU is not involved in any litigation with its coal suppliers.
  - a. Not applicable.
  - b. Not applicable.

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### **Question No. 25**

### Witness: Delbert Billiter

- Q-25. List each written coal supply solicitation issued during the period May 1, 2016 to October 31, 2016.
  - a. For each solicitation, provide the date of the solicitation (contract or spot), the quantities solicited, a general description of the quality of coal solicited, the time period over which deliveries were requested, and the generating unit(s) for which the coal was intended.
  - b. For each solicitation, state the number of vendors to whom the solicitation was sent, the number of vendors who responded, and the selected vendor. Provide the bid tabulation sheet or corresponding document that ranks the proposals. (This document shall identify all vendors who made offers.) State the reasons for each selection. For each lowest-cost bid not selected, explain why the bid was not selected.

### A-25. SOLICITATION 1

The final selection of the vendors who responded to the solicitation dated March 2, 2016 was completed for middlings spot order for 2017 and was filed in Case No. 2016-00232. The selection of vendors for 2017 and beyond was not completed at the time the data responses were filed for high sulfur coal. The requested information for the selected vendors is provide below for the high sulfur coal purchased for 2017 - 2020.

a.	Date:	March 2, 2016
	Contract/Spot:	Contract or Spot
	Quantities:	No minimum or maximum specified
	Quality:	Suitable for KU's Ghent Station and LG&E's Trimble County and
		Mill Creek Stations
	Period:	April through December 2016 – Spot
		2017 and beyond – Contract

Generating Units: KU's Ghent Station and LG&E's Trimble County and Mill Creek Stations

b. Number of vendors receiving bids: 122
 Number of vendors responded: 22 companies / 46 offers
 Selected vendor(s): The vendor(s) selected were based upon the lowest evaluated delivered cost.

<u>High Sulfur Term</u> Alliance Coal, LLC – J17005, J18003 The American Coal Company – J17004 Armstrong Coal Sales – J18002

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

## **SOLICITATION 2**

Date:	September 20, 2016
Contract/Spot:	Contract or Spot
Quantities:	No minimum or maximum specified
Quality:	Suitable for KU's Ghent Station and LG&E's Trimble County and
	Mill Creek Stations
Period:	2018 and beyond - Contract
Generating Units:	KU's Ghent Station and LG&E's Trimble County and Mill Creek
	Stations
	Contract/Spot: Quantities: Quality: Period:

b. Number of vendors receiving bids: 123
 Number of vendors responded: 14 companies / 23 offers
 Selected vendor(s): Will be provided once the process is complete.

The final selection of the vendor(s) for high sulfur coal for the period of 2018-2020 from the bids are in negotiations and are still in progress. The name of the selected vendors and supporting bid tabulation will be provided to the Commission after the negotiations are completed and the agreements signed.

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

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### **Question No. 26**

### Witness: Delbert Billiter

- Q-26. List each oral solicitation for coal supplies issued during the period from May 1, 2016 to October 31, 2016.
  - a. For each solicitation, state why the solicitation was not written, the date(s) of the solicitation, the quantities solicited, a general description of the quality of coal solicited, the time period over which deliveries were requested, and the generating unit(s) for which the coal was intended.
  - b. For each solicitation, identify all vendors solicited and the vendor selected. Provide the bid tabulation sheet or other document that ranks the proposals. (This document shall identify all vendors who made offers.) State the reasons for each selection. For each lowest-cost bid not selected, explain why the bid was not selected.
- A-26. KU did not issue any oral solicitation.
  - a. Not applicable.
  - b. Not applicable.

### **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### **Question No. 27**

### Witness: Delbert Billiter

Q-27. For the period from May 1, 2016 to October 31, 2016, list each vendor from whom coal was purchased and the quantity and nature of each purchase (e.g., spot or contract). For the period under review in total, provide the percentage of purchases that were spot versus contract.

### A-27.

	PURCHASE	
<u>VENDOR</u>	TONNAGE	TYPE
Alliance Coal LLC - J12007	257,247	Contract
Alliance Coal LLC - J16001B	49,240	Contract
Alliance Coal LLC - J16004	31,739	Spot
Alliance Coal LLC - J16008	107,254	Contract
Arch Coal Sales Company Inc J16012	157,603	Contract
Armstrong Coal Company - J07032	306,976	Contract
Armstrong Coal Company - J14004	126,668	Contract
Armstrong Coal Company - J14010	41,420	Contract
Armstrong Coal Company - J16003	276,016	Contract
Armstrong Coal Company - J16017	120,125	Contract
Bowie Refined Coal LLC - K14037	22,568	Contract
Peabody COALSALES LLC - J16007	369,563	Contract
Eagle River Coal LLC - J16005	85,584	Contract
Foresight Coal Sales LLC - J16009	346,934	Spot
Kolmar Americas - J16019	29,435	Spot
Peabody Coaltrade LLC - J16016	33,809	Spot
Rhino Energy LLC - J14001	397,252	Contract
Triad Mining LLC - J15002	320,830	Contract
The American Coal Company - J16002	250,029	Spot
	3,330,293	
	2,638,347	79% Contract
	691,946	21% Spot
	3,330,293	

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

### Case No. 2017-00003

### Question No. 28

### Witness: Charles R. Schram

- Q-28. For the period from May 1, 2016 to October 31, 2016, list each vendor from whom natural gas was purchased for generation and the quantity and nature of each purchase (e.g., spot or contract). For the period under review in total, provide the percentage of purchases that were spot versus contract.
- A-28. See the attachment for the list of vendors, associated quantities, and the nature of the natural gas purchases. KU has contracted with Texas Gas Pipeline for long-term firm gas transport for both LG&E and KU combustion turbine generation.

Beginning in July 2016, a portion of the natural gas used to fuel the Cane Run 7 combined cycle unit was purchased on a forward basis. Other than those forward purchases and the purchases made pursuant to the Special Contract referenced below, natural gas was purchased on an 'as-needed' spot market basis. The Special Contract and the contracts for long-term firm gas transport have been filed with the Commission.

Purchases from Louisville Gas and Electric Company are primarily for LG&E-owned coal and gas fired generation and are made in accordance with a Special Contract under 807 KAR 5:011 Section 13.<sup>1</sup> Additionally, purchases from Columbia Gas are for KU-owned generation served by the local distribution company.

<sup>&</sup>lt;sup>1</sup> The Special Contract for Firm Gas Sales and Firm Transportation Service dated September 28, 2007 and effective April 11, 2008, between Louisville Gas and Electric Company, on behalf of its Gas Distribution Business, and Louisville Gas and Electric Company and Kentucky Utilities Company, on behalf of their Electric Generation Business, was approved by the Kentucky Public Service Commission in Case No. 2007-00449.

KU and LG&E have joint ownership in the following combustion turbine and combined cycle units:

Station	Units	KU Ownership	LG&E Ownership
Trimble County	5 and 6	71%	29%
Trimble County	7, 8, 9 and 10	63%	37%
Brown	5	47%	53%
Paddy's Run	13	47%	53%
Brown	6 and 7	62%	38%
Cane Run	7	78%	22%

Fuel expenses for actual commodity used and associated pipeline transport charges, if any, are allocated to the Companies based on their respective ownership percentages.

Vendor	Type	MMBtu
Anadarko Energy Services Company	Spot	44,200
Atmos Energy Marketing, LLC	Spot	143,031
BG Energy Merchants, LLC	Spot	310,600
BP Energy Company	Spot	4,467,098
Cargill, Inc.	Spot	45,000
CIMA Energy, LTD	Spot	419,522
Colonial Energy, Inc.	Spot	136,100
Columbia Gas of Kentucky, Inc.	GSO Customer*	4,742
ConocoPhillips Company	Spot	76,600
Direct Energy Business Marketing,	Spot	139,900
DTE Energy Trading, Inc.	Spot	1,090,233
Eco-Energy, LLC	Spot	66,000
EDF Trading North America, LLC	Spot	37,900
Exelon Generation Company, LLC	Spot	534,600
Laclede Energy Resources, Inc.	Spot	302,501
Macquarie Energy, LLC	Spot	101,300
Mercuria Energy America, Inc.	Spot	118,500
Mercuria Energy Gas Trading LLC	Spot	214,700
NextEra Energy Power Marketing, LLC	Spot	600
NJR Energy Services Company	Spot	165,509
Range Resources - Appalachia, LLC	Spot	456,028
Sequent Energy Management, L.P.	Spot	2,039,300
Shell Energy North America (US), L.P.	Spot	443,100
SWN Energy Services Company, LLC	Spot	30,000
Tenaska Marketing Ventures	Spot	13,058,894
Tennessee Valley Authority	Spot	100,000
Twin Eagle Resource Management, LLC	Spot	195,300
United Energy Trading, LLC	Spot	13,796
Vitol Inc.	Spot	10,000
LG&E Gas Supply	Special Contract**	166,999
EDF Trading North America, LLC	Forward	1,850,000
Mercuria Energy America, Inc.	Forward	610,000
Sequent Energy Management, L.P.	Forward	310,000

Total Volume

27,702,053 MMBtu

\*KU is a General Sales Customer of Columbia Gas of Kentucky for the Haefling Plant; no volume purchase commitments. \*\*LG&E is the local gas distribution company; no volume purchase commitments.
# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

## Case No. 2017-00003

## **Question No. 29**

## Witness: Charles R. Schram / Delbert Billiter

- Q-29. State whether KU engages in hedging activities for its coal or natural gas purchases used for generation. If the response is yes, describe the hedging activities in detail.
- A-29. KU does not engage in financial hedging activities for its coal or natural gas purchases.

KU does use physical hedging in contracting for coal. KU uses the following guidelines in utilization of coal under contract for the minimum projected requirement:

1 year out 95 - 100%
2 years out 80 - 90%
3 years out 40 - 90%
4 years out 30 - 70%
5 years out 10 - 50%
6 years out 0 - 30%

KU also uses physical hedging in contracting for natural gas. KU began to purchase a portion of the natural gas for the Cane Run 7 combined cycle unit on a forward basis beginning in July 2016. For the current year, the Company's practice targets purchasing no more than 50 percent of the forecasted burn at CR7. Longer-term, KU uses the following guidelines for the purchase of natural gas under contract for the minimum projected Cane Run 7 requirement:

1 year out	10 - 50%
2 years out	0-30%
3 years out	0-10%

#### **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 30**

#### Witness: Delbert Billiter / Stuart A. Wilson

Q-30. For each generating station or unit for which a separate coal pile is maintained, state for the period from May 1, 2016 to October 31, 2016 the actual amount of coal burned in tons, actual amount of coal deliveries in tons, total kWh generated, and actual capacity factor at which the plant operated.

				Capacity Factor
				(Net MWh)/
	Coal Burn	Coal Receipts		(period hrs x
Plant	(Tons)	(Tons)	Net MWh	MW rating)
E. W. Brown	573,403	522,573	1,149,508	38.2%
Ghent	2,909,101	2,650,117	6,173,900	72.9%
Trimble County HS	N/A	1,558,541	N/A	N/A
Trimble County PRB	N/A	157,603	N/A	N/A
Trimble County 2	767,906	N/A	1,778,998	55.0%

A-30. The information requested from May 1, 2016 to October 31, 2016 is shown in the table below:

Notes: 1 – Trimble County values reflect 100% of the unit. Trimble County 2 is owned by KU (60.75%), LG&E (14.25%), IMPA (12.88%), and IMEA (12.12%).

2 - The North American Electric Reliability Council Generation Availability Data System defines capacity factor as the value equal to the net MWh produced divided by the product of the hours in the period and the unit rating.

#### **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 31**

#### Witness: Stuart A. Wilson

- Q-31. For each natural gas generating unit, state for the period from May 1, 2016, to October 31, 2016, the actual amount of natural gas burned, total kWh generated, and actual capacity factor at which the plant operated.
- A-31. The information requested from May 1, 2016 to October 31, 2016 is shown in the table below:

			Capacity Factor
			(Net MWh)/
	Coo Dum		· · · · · · · · · · · · · · · · · · ·
	Gas Burn		(period hrs x
Unit	(MCF)	Net MWh	MW rating)
Cane Run 7	17,290,067	2,604,339	89.1%
Brown 5	217,918	16,603	2.9%
Brown 6	192,570	17,382	2.7%
Brown 7	185,874	16,701	2.6%
Brown 8	729,127	58,838	11.0%
Brown 9	816,230	64,692	12.1%
Brown 10	508,527	40,501	7.6%
Brown 11	549,644	41,940	7.8%
Haefling	4,130	195	0.2%
Paddys Run 13	994,785	93,010	14.3%
Trimble Co 5	851,170	73,287	10.4%
Trimble Co 6	544,871	48,085	6.8%
Trimble Co 7	965,833	84,282	12.0%
Trimble Co 8	162,333	14,325	2.0%
Trimble Co 9	1,178,770	105,994	15.1%
Trimble Co 10	879,388	77,477	11.0%

Notes: 1 – Values for jointly owned units reflect 100% of the unit.

2 - The North American Electric Reliability Council Generation Availability Data System defines capacity factor as the value equal to the net MWh produced divided by the product of the hours in the period and the unit rating.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 32**

#### Witness: Charles R. Schram / Delbert Billiter

- Q-32. a. During the period from May 1, 2016 to October 31, 2016, have there been any changes to KU's written policies and procedures regarding its fuel procurement?
  - b. If yes,
    - (1) Describe the changes;
    - (2) State the date(s) the changes were made;
    - (3) Explain why the changes were made; and
    - (4) Provide the written policies and procedures as changed.
  - c. If no, provide the date when KU's current fuel procurement policies and procedures were last changed, when they were last provided to the Commission, and identify the proceeding in which they were provided.
- A-32. a. No changes were made during the period referenced above to the Corporate Fuels and By-Products Procurement Procedures or to the Power Supply Commodity Policy – Natural Gas Fuel for Generation.
  - b. Not applicable.
  - c. The Corporate Fuels and By-Products Procurement Procedures were last changed effective August 1, 2015 and were provided to the Commission in response to Question No. 15 in Case No. 2016-00003. The Power Supply Commodity Policy Natural Gas Fuel for Generation was effective February 1, 2016, and was provided to the Commission in response to Question No. 15 in Case No. 2016-00003.

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 33**

# Witness: Delbert Billiter

- Q-33. a. State whether KU is aware of any violations of its policies and procedures regarding fuel procurement that occurred prior to or during the period from May 1, 2016 to October 31, 2016.
  - b. If the response is yes, for each violation:
    - (1) Describe the violation;
    - (2) Describe the action(s) that KU took upon discovering the violation; and
    - (3) Identify the person(s) who committed the violation.

# A-33. a. No.

b. Not applicable.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### Question No. 34

#### Witness: Charles R. Schram / Delbert Billiter

- Q-34. Identify and explain the reasons for all changes in the organizational structure and personnel of the departments or divisions that are responsible for KU's fuel procurement activities that occurred during the period from May 1, 2016, to October 31, 2016.
- A-34. Changes that occurred in the Corporate Fuels and By-Products Department:

Yvette Rhoads, Senior Secretary left the company September 6, 2016.

Brittany Meyer joined the department as Senior Administrative Assistant on December 28, 2016.

See attached organization chart dated December 2016 for Corporate Fuels and By-Products.

The Power Supply department has no organizational or personnel changes to report.

# Corporate Fuels and By-Products December, 2016



Attachment to Response to Question No. 34 Page 1 of 1 Billiter

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 35**

#### Witness: Eileen L. Saunders

- Q-35. a. Identify all changes that KU made during the period from May 1, 2016 to October 31, 2016 to its maintenance and operation practices that affect fuel usage at KU's generation facilities.
  - b. Describe the impact of these changes on KU's fuel usage.
- A-35. a. None.
  - b. Not applicable.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 36**

#### Witness: Derek Rahn

- Q-36. a. List all intersystem sales during the period from May 1, 2016 to October 31, 2016 in which KU used a third party's transmission system.
  - b. For each sale listed above:
    - (1) Describe the effect on the FAC calculation of line losses related to intersystem sales when using a third party's transmission system; and
    - (2) State the line-loss factor used for each transaction and describe how such line-loss factor was determined.
- A-36. a. There were no inter-system sales from May 1, 2016 through October 31, 2016, which required a third party's transmission system.
  - b. Not applicable.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

## Case No. 2017-00003

# Question No. 37

# Witness: Derek Rahn

- Q-37. a. Describe the effect on the FAC calculation of line losses related to intersystem sales when not using a third party's transmission system.
  - b. Describe each change that KU made to its methodology for calculating intersystem sales line losses during the period from May 1, 2016 to October 31, 2016.

## A-37.

- a. KU continues to use a line loss factor of 0.5% to determine the cost of fuel associated with line losses incurred to make an intersystem sale and recovered from such sale consistent with the Commission's June 7, 2013, Amended Order in Case No. 2012-00552.
- b. There have been no changes regarding the calculation of losses associated with intersystem sales.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 38**

# Witness: Delbert Billiter

- Q-38. State whether KU has solicited bids for coal with the restriction that it was not mined through strip mining or mountain top removal. If the response is yes, explain the reasons for the restriction on the solicitation, the quantity in tons and price per ton of the coal purchased as a result of this solicitation, and the difference between the price of this coal and the price it could have obtained for the coal if the solicitation had not been restricted.
- A-38. KU has not solicited bids with this restriction.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 39**

#### Witness: Eileen L. Saunders

- Q-39. Provide a detailed discussion of any specific generation efficiency improvements KU has undertaken during the period from May 1, 2016, to October 31, 2016.
- A-39. KU has not realized any efficiency improvements through major component projects during this period. KU strives to maintain unit efficiency through routine, cyclical, planned outage maintenance. This maintenance work continues to focus on reestablishing expected turbine efficiency degraded since the previous outage. Additionally, KU maintains unit efficiency through continuous monitoring of all plant systems during operation. KU contracts Black and Veatch to provide this monitoring on larger units to identify trends which indicate a potential efficiency loss of any system component. Black and Veatch sends notification to the generating stations which track the potential issue through resolution. In evaluating potential major component projects or replacements that may impact efficiency, KU must balance any potential efficiency benefit associated with the project against both costs and potential implications under the Clean Air Act.

## **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### **Question No. 40**

#### Witness: Derek Rahn

- Q-40. State whether all contracts related to commodity and/or transportation have been filed with the Commission. If any contracts have not been filed, explain why they have not been filed and provide a copy.
- A-40. Yes, all contracts for May 2016 through October 2016 related to commodity and/or transportation have been filed with the Commission.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

#### Case No. 2017-00003

#### Question No. 41

#### Witness: Delbert Billiter / Charles R. Schram

- Q-41. Identify any issues that could affect fuel costs for the two-year period that remain unresolved or unsettled. Include in the response any issues related to billings from a regional transmission operator. Consider this a continuing request to inform the Commission if KU becomes aware of any issues during the course of this proceeding.
- A-41. The Company has no unresolved or unsettled issues to report.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

# Case No. 2017-00003

# **Question No. 42**

# Witness: Charles R. Schram

- Q-42. Explain in detail how KU classifies a generation outage as forced or scheduled.
- A-42. The Company uses the definitions and guidelines published by the North American Electric Reliability Corporation ("NERC") for reporting to the Generating Availability Data System ("GADS"). GADS definitions for determining outage classifications can be found on NERC's website: (http://www.nerc.com/pa/RAPA/gads/Pages/Data%20Reporting%20Instructions.aspx).

Below are excerpts from the NERC GADS definitions for planned (scheduled), maintenance, and forced outages:

## **PO** – **Planned Outage**

An outage that is scheduled well in advance and is of a predetermined duration, can last for several weeks, and occurs only once or twice a year. Turbine and boiler overhauls or inspections, testing, and nuclear refueling are typical planned outages. For a planned outage, all of the specific individual maintenance and operational tasks to be performed are determined in advance and are referred to as the "original scope of work." The general task of repairing turbines, boilers, pumps, etc. is not considered a work scope because it does not define the individual tasks to be performed. For example, if a general task such as repair boiler is considered the work scope, it is impossible to conclude that any boiler work falls outside of the original scope of work. Discovery work and re-work which render the unit out of service beyond the estimated PO end date are not considered part of the original scope of work. A planned extension may be used only in instances where the original scope of work requires more time to complete than the estimated time. For example, if an inspection that is in the original scope of work for the planned outage takes longer than scheduled, the extra time should be coded as an extension (PE). However, if damage found during the inspection results in an extension of the outage, the extra time required to make repairs should be coded as a forced outage.

## **MO** – **Maintenance Outage**

An outage that can be deferred beyond the end of the next weekend (defined as Sunday at 2400 hours or as Sunday turns into Monday), but requires that the unit be removed from service, another outage state, or Reserve Shutdown state before the next Planned Outage

(PO). Characteristically, a MO can occur any time during the year, has a flexible start date, may or may not have a predetermined duration, and is usually much shorter than a PO. Discovery work and re-work which render the unit out of service beyond the estimated MO end date are not considered part of the original scope of work. A maintenance extension may be used only in instances where the original scope of work requires more time to complete than the estimated time. For example, if an inspection that is in the original scope of work for the outage takes longer than scheduled, the extra time should be coded as an extension (ME). If the damage found during the inspection is of a nature that the unit could be put back on-line and be operational past the end of the upcoming weekend, the work could be considered MO. If the inspection reveals damage that prevents the unit from operating past the upcoming weekend, the extended work time should be Forced Outage (U1).

# U1 – Unplanned (Forced) Outage — Immediate

This is an outage that requires immediate removal of a unit from service, another outage state, or a reserve shutdown state. This type of outage usually results from immediate mechanical/electrical/hydraulic control system trips and operator-initiated trips in response to unit alarms.

# U2 – Unplanned (Forced) Outage — Delayed

This is an outage that does not require immediate removal of a unit from the in-service state, instead requiring removal within six hours. This type of outage can only occur while the unit is in service.

# U3 – Unplanned (Forced) Outage — Postponed

This is an outage that can be postponed beyond six hours but requires that a unit be removed from the in service state before the end of the next weekend (Sunday at 2400 or before Sunday turns into Monday). This type of outage can only occur while the unit is in service.

# **Response to Commission Staff's First Request for Information in Appendix B of Commission's Order Dated February 6, 2017**

## Case No. 2017-00003

# **Question No. 43**

# Witness: Derek Rahn

- Q-43. Refer to Form B filings for the review period for KU and its sister company, Louisville Gas and Electric Company ("LG&E").
  - a. The Natural Gas Fuel Inventory Schedule for the Brown station shows a beginning and ending balance. State whether this indicates that KU has a storage facility for natural gas at the Brown station or whether this represents natural gas stored on the pipeline.
  - b. KU and LG&E jointly own the Brown combustion turbines. Explain why KU shows a beginning and ending inventory balance, but LG&E does not.

A-43.

- a. The Natural Gas Fuel Inventory represents the natural gas stored in the pipeline. KU does not have natural gas storage facilities.
- b. KU and LG&E jointly own Brown combustion turbines. For accounting purposes, given the insignificant amount of gas inventory for electric generation due to the lack of physical storage, gas inventory is recorded entirely on KU's books for these generation stations. This avoids KU from having to maintain separate inventory accounts for each generation unit thereby eliminating the need to perform numerous cost allocations on insignificant amounts. Once the natural gas is received at the station and burned by a specific unit, the natural gas cost is then allocated based on the KU and LG&E ownership percentage of that specific unit to ensure costs are properly charged to each company.