

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

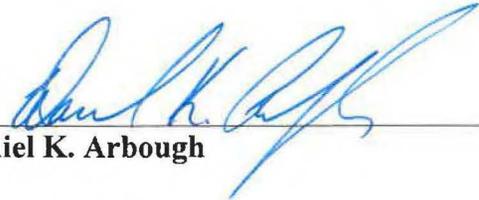
RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO
COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION
DATED FEBRUARY 7, 2017

FILED: FEBRUARY 20, 2017

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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



Daniel K. Arbough

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



Notary Public (SEAL)

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

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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



Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 16th day of February 2017.



Notary Public (SEAL)

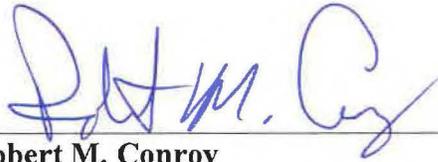
My Commission Expires:
JUDY SCHULER
Notary Public, State at Large, KY
My commission expires July 11, 2018

Notary ID # 512743

VERIFICATION

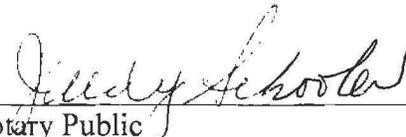
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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



Robert M. Conroy

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



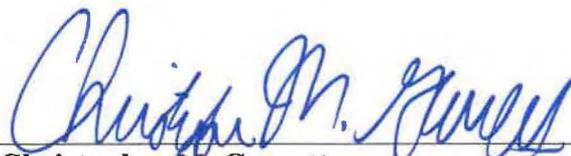
Notary Public (SEAL)

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

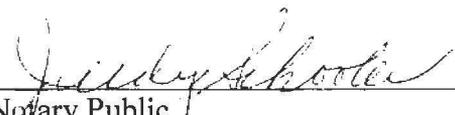
VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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


Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 30th day of February 2017.

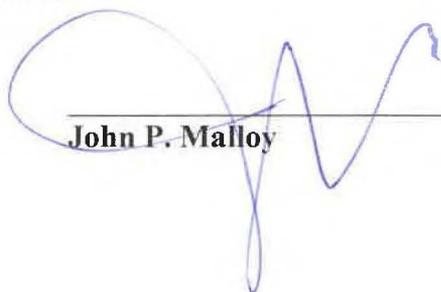
 (SEAL)
Notary Public

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

VERIFICATION

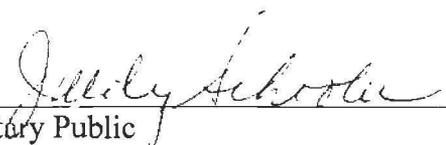
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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



John P. Malloy

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



Notary Public (SEAL)

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

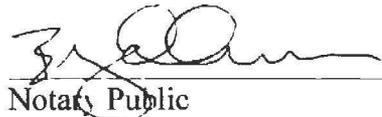
VERIFICATION

STATE OF TEXAS)
) SS:
COUNTY OF TRAVIS)

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


Adrien M. McKenzie

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 10 day of February 2017.

 (SEAL)
Notary Public

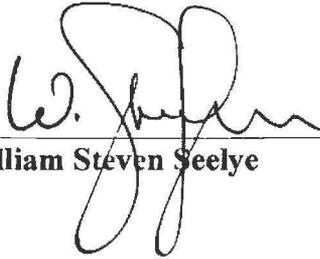
My Commission Expires:
10/03/2017



VERIFICATION

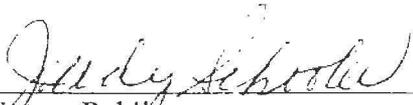
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **William Steven Seelye**, being duly sworn, deposes and states that he is a Principal of The Prime Group, LLC, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



William Steven Seelye

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



Notary Public (SEAL)

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

VERIFICATION

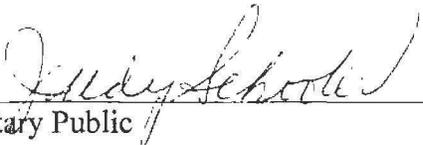
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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



David S. Sinclair

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



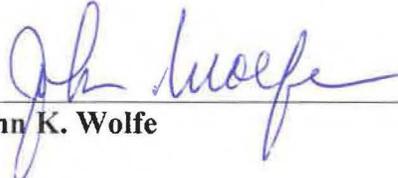
Notary Public (SEAL)

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

VERIFICATION

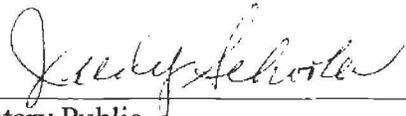
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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



John K. Wolfe

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of February 2017.



Notary Public (SEAL)

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

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 1

Responding Witness: John P. Malloy

Q-1. Refer to the Application, Direct Testimony of John P. Malloy, Exhibit JPM-1, page 38 of 169. Provide the tables on this page with a breakdown of the amounts between KU and its sister company, Louisville Gas and Electric Company ("LG&E").

A-1. Note that in the tables below the sum of the individual items shown and the totals provided might differ due to rounding:

Louisville Gas & Electric	Total Nominal \$Millions						
	2016 -2021	2016	2017	2018	2019	2020	2021
Capital Expenses							
Meters and Network	\$ 109.1	\$ 0.2	\$ 37.4	\$ 35.1	\$ 36.5	\$ -	\$ -
IT and Systems	\$ 47.4	\$ 0.2	\$ 14.6	\$ 17.1	\$ 13.8	\$ 1.7	\$ -
Capex total	\$ 156.5	\$ 0.4	\$ 51.9	\$ 52.2	\$ 50.3	\$ 1.7	\$ -
Operating Expenses							
Meters and Network	\$ 6.2	\$ -	\$ 2.1	\$ 2.0	\$ 2.2	\$ -	\$ -
IT and Systems	\$ 6.6	\$ -	\$ 0.3	\$ 0.5	\$ 1.0	\$ 2.2	\$ 2.6
Opex total	\$ 12.9	\$ -	\$ 2.4	\$ 2.4	\$ 3.2	\$ 2.2	\$ 2.6
Total Costs	\$ 169.3	\$ 0.4	\$ 54.4	\$ 54.6	\$ 53.5	\$ 3.9	\$ 2.6
Total Benefits	\$ 50.3	\$ -	\$ 0.5	\$ 2.1	\$ 15.9	\$ 16.0	\$ 15.8

Kentucky Utilities	Total Nominal \$Millions						
	2016 -2021	2016	2017	2018	2019	2020	2021
Capital Expenses							
Meters and Network	\$ 101.1	\$ 0.3	\$ 25.4	\$ 36.4	\$ 39.1	\$ -	\$ -
IT and Systems	\$ 62.8	\$ 0.3	\$ 19.3	\$ 22.7	\$ 18.3	\$ 2.2	\$ -
Capex total	\$ 163.9	\$ 0.6	\$ 44.7	\$ 59.1	\$ 57.4	\$ 2.2	\$ -
Operating Expenses							
Meters and Network	\$ 8.3	\$ -	\$ 1.0	\$ 3.5	\$ 3.8	\$ -	\$ -
IT and Systems	\$ 8.8	\$ -	\$ 0.4	\$ 0.6	\$ 1.4	\$ 2.9	\$ 3.5
Opex total	\$ 17.1	\$ -	\$ 1.5	\$ 4.1	\$ 5.1	\$ 2.9	\$ 3.5
Total Costs	\$ 181.1	\$ 0.6	\$ 46.1	\$ 63.2	\$ 62.5	\$ 5.1	\$ 3.5
Total Benefits	\$ 62.4	\$ -	\$ 1.1	\$ 3.2	\$ 15.3	\$ 21.6	\$ 21.2

The table titled "AMS Cost-Benefit Summary (2016-2039)" in Exhibit JPM-1, page 38 of 169 was calculated on a total company basis only.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 2

Responding Witness: Valerie L. Scott

Q-2. Refer to the responses to Commission Staff's First Request for Information ("Staff's First Request"), Item 61.a. and 61.b. Provide the comparable information for calendar years 2014 and 2016 in the same format.

A-2. See attached.

BILLED TO THE SERVICE COMPANY (LKS) FROM KENTUCKY UTILITIES COMPANY (KU)
FOR THE 2014 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge
	107 Construction Work In Progress	66,993
	184 Clearing Accounts	2,191
	500 Operation Supervision And Engineering	1,114
	560 Operation Supervision And Engineering	246
	566 Miscellaneous Transmission Expenses	117
	580 Operation Supervision And Engineering	40
	901 Supervision	54
	903 Customer Records And Collection Expenses	438
	920 Administrative And General Salaries	8,610
	921 Office Supplies And Expenses	15,021
	925 Injuries And Damages	2,556
	935 Maintenance Of General Plant	634,568
Grand Total		731,947

BILLED TO THE SERVICE COMPANY (PPL SERVICES CORPORATION) FROM KENTUCKY UTILITIES COMPANY (KU)
FOR THE 2014 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge
	920 Administrative And General Salaries	360
	454 Rent From Electric Property	217,593
	131 Cash	2,540
Grand Total		220,493

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (LKS)
FOR THE 2014 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	2014 Total
107	Construction Work In Progress	14,059,941	19,642,882	33,702,823
108	Accumulated Provision For Depreciation Of Utility Plant	285,761	35,220	320,980
131	Cash	(780,343)	-	(780,343)
143	Other Accounts Receivable	2,596	(405)	2,192
146	Accounts Receivable From Associated Companies	335	-	335
151	Fuel Stock	486,355,554	-	486,355,554
163	Stores Expense Undistributed	31,925	251,520	283,444
165	Prepayments	11,355,360	1,628,975	12,984,335
182.3	Other Regulatory Assets	579,141	-	579,141
183	Preliminary Survey And Investigation Charges	118,047	148	118,196
184	Clearing Accounts	20,266,792	4,118,628	24,385,421
186	Miscellaneous Deferred Debits	300,539	5	300,544
228.3	Accumulated Provision For Pensions And Benefits	2,711,061	-	2,711,061
232	Accounts Payable	(606,191)	-	(606,191)
236	Taxes Accrued	(720,345)	-	(720,345)
241	Tax Collections Payable	(4)	-	(4)
242	Miscellaneous Current And Accrued Liabilities	623,710	-	623,710
253	Other Deferred Credits	(13,786)	2,203,219	2,189,433
408.1	Taxes Other Than Income Taxes, Utility Operating Income	4,501,581	-	4,501,581
408.2	Taxes Other Than Income Taxes, Other Income And Deductions	719	-	719
426.1	Donations	1,059,860	49,436	1,109,296
426.3	Penalties	121,019	15,352	136,371
426.4	Expenditures For Certain Civic, Political And Related Activities	284,601	772,096	1,056,697
426.5	Other Deductions	572,232	382,276	954,508
456	Other Electric Revenues	12,911	-	12,911
500	Operation Supervision And Engineering	690,409	4,640,892	5,331,301
501	Fuel	142,309	1,296,642	1,438,951
502	Steam Expenses	249,217	19,091	268,308
505	Electric Expenses	60,775	-	60,775
506	Miscellaneous Steam Power Expenses	294,925	11,149	306,074
510	Maintenance Supervision And Engineering	697,990	279,983	977,973
511	Maintenance Of Structures	12,587	-	12,587
512	Maintenance Of Boiler Plant	45,789	-	45,789
513	Maintenance Of Electric Plant	169,980	19,812	189,792
514	Maintenance Of Miscellaneous Steam Plant	12,584	21	12,605

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (LKS)
FOR THE 2014 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	2014 Total
549	Miscellaneous Other Power Generation Expenses	3,383	-	3,383
556	System Control And Load Dispatching	94,465	1,569,242	1,663,707
560	Operation Supervision And Engineering	176,030	1,496,513	1,672,543
561.1	Load Dispatch-Reliability	508,201	1,470,303	1,978,505
561.2	Load Dispatch-Monitor And Operate Transmission System	144,864	111,867	256,730
561.3	Load Dispatch-Transmission Service And Scheduling	45,249	103,990	149,238
561.5	Reliability, Planning And Standards Development	91,142	790,506	881,648
561.6	Transmission Service Studies	16,671	358	17,029
562	Station Expenses	26,125	1,632	27,757
563	Overhead Line Expenses	66,798	6,206	73,004
566	Miscellaneous Transmission Expenses	60,457	2,290,866	2,351,323
570	Maintenance Of Station Equipment	513,098	222,649	735,747
571	Maintenance Of Overhead Lines	91,819	12,817	104,637
573	Maintenance Of Miscellaneous Transmission Plant	17,738	181,869	199,606
580	Operation Supervision And Engineering	211,978	921,248	1,133,226
581	Load Dispatching	280,586	542,106	822,692
582	Station Expenses	34,311	1,442	35,753
583	Overhead Line Expenses	2,757,934	7,671	2,765,605
586	Meter Expenses	152,484	367,321	519,805
588	Miscellaneous Distribution Expenses	452,225	1,242,512	1,694,737
590	Maintenance Supervision And Engineering	8,088	9,045	17,133
592	Maintenance Of Station Equipment	12,234	209	12,443
593	Maintenance Of Overhead Lines	143,769	135,287	279,057
594	Maintenance Of Underground Lines	5,891	1	5,892
598	Maintenance Of Miscellaneous Distribution Plant	61,957	723	62,680
901	Supervision	369,297	2,431,823	2,801,120
902	Meter Reading Expenses	25,847	121,809	147,655
903	Customer Records And Collection Expenses	4,704,443	7,125,541	11,829,985
905	Miscellaneous Customer Accounts Expenses	135,125	38,643	173,767
907	Supervision	1,395	385,282	386,677
908	Customer Assistance Expenses	11,922,850	248,556	12,171,407
909	Informational And Instructional Advertising Expenses	351,370	49,339	400,710
910	Miscellaneous Customer Service And Informational Expenses	644,120	344	644,464
913	Advertising Expenses	89,677	4,631	94,307
920	Administrative And General Salaries	1,763,056	32,152,605	33,915,661

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (LKS)
FOR THE 2014 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	2014 Total
921	Office Supplies And Expenses	1,107,512	6,483,180	7,590,692
923	Outside Services Employed	4,878,936	12,705,186	17,584,122
924	Property Insurance	56,425	228,035	284,460
925	Injuries And Damages	1,722	143,919	145,641
926	Employee Pensions And Benefits	15,054,691	216,247	15,270,938
928	Regulatory Commission Expenses	990,977	-	990,977
930.1	General Advertising Expenses	923,663	1,599	925,262
930.2	Miscellaneous General Expenses	(870,742)	2,735,822	1,865,079
931	Rents	59,569	1,309,523	1,369,092
935	Maintenance Of General Plant	1,668,032	610,312	2,278,344
Grand Total		593,355,039	113,845,723	707,200,762

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (PPL SERVICES CORPORATION)
FOR THE 2014 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	2014 Total
107	Construction Work In Progress	14,649	-	14,649
165	Prepayments	(55,811)	-	(55,811)
560	Operation Supervision And Engineering	(40)	-	(40)
580	Operation Supervision And Engineering	(40)	-	(40)
921	Office Supplies And Expenses	(61,232)	-	(61,232)
923	Outside Services Employed	6,250	-	6,250
925	Injuries And Damages	-	233,559	233,559
930.2	Miscellaneous General Expenses	(3,521)	-	(3,521)
Grand Total		(99,745)	233,559	133,814

BILLED TO THE SERVICE COMPANY (LKS) FROM KENTUCKY UTILITIES COMPANY (KU)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge
107	Construction Work In Progress	363,453
108	Accumulated Provision For Depreciation Of Utility Plant	32,374
131	Cash	43,255
163	Stores Expense Undistributed	37,520
183	Preliminary Survey And Investigation Charges	10,740
184	Clearing Accounts	479,842
188	Research, Development And Demonstration Expenses	6,759
232	Accounts Payable	(156,677)
408.1	Taxes Other Than Income Taxes, Utility Operating Income	357,030
426.4	Expenditures For Certain Civic, Political And Related Activities	13,269
426.5	Other Deductions	9,597
500	Operation Supervision And Engineering	1,412,095
501	Fuel	299,991
502	Steam Expenses	1,599
506	Miscellaneous Steam Power Expenses	114,279
510	Maintenance Supervision And Engineering	70,364
512	Maintenance Of Boiler Plant	161
513	Maintenance Of Electric Plant	2,735
549	Miscellaneous Other Power Generation Expenses	77
556	System Control And Load Dispatching	24,368
560	Operation Supervision And Engineering	(7,565)
561.1	Load Dispatch-Reliability	(112)
561.2	Load Dispatch-Monitor And Operate Transmission System	16,788
561.3	Load Dispatch-Transmission Service And Scheduling	(1,428)
561.5	Reliability, Planning And Standards Development	(4,339)

BILLED TO THE SERVICE COMPANY (LKS) FROM KENTUCKY UTILITIES COMPANY (KU)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge
561.6	Transmission Service Studies	255
562	Station Expenses	1,610
563	Overhead Line Expenses	1,682
566	Miscellaneous Transmission Expenses	1,052
570	Maintenance Of Station Equipment	(2,240)
571	Maintenance Of Overhead Lines	1,834
573	Maintenance Of Miscellaneous Transmission Plant	90
580	Operation Supervision And Engineering	4,488
581	Load Dispatching	2,897
582	Station Expenses	799
583	Overhead Line Expenses	15,848
586	Meter Expenses	(8,605)
588	Miscellaneous Distribution Expenses	(7,127)
590	Maintenance Supervision And Engineering	266
592.1	Maintenance of Structures and Equipment	244
593	Maintenance Of Overhead Lines	3,203
901	Supervision	(14,493)
902	Meter Reading Expenses	(1,373)
903	Customer Records And Collection Expenses	(29,006)
905	Miscellaneous Customer Accounts Expenses	(3)
907	Supervision	(1,134)
908	Customer Assistance Expenses	33,607
920	Administrative And General Salaries	(171,691)
921	Office Supplies And Expenses	17,977
923	Outside Services Employed	(2,189)

BILLED TO THE SERVICE COMPANY (LKS) FROM KENTUCKY UTILITIES COMPANY (KU)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge
	925 Injuries And Damages	12,119
	926 Employee Pensions And Benefits	1,141,926
	930.2 Miscellaneous General Expenses	19,529
	935 Maintenance Of General Plant	671,019
Grand Total		<u>4,818,762</u>

BILLED TO THE SERVICE COMPANY (PPL SERVICES CORPORATION) FROM KENTUCKY UTILITIES COMPANY (KU)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge
	920 Administrative And General Salaries	726
	454 Rent From Electric Property	189,282
Grand Total		<u>190,008</u>

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (LKS)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	2016 Total
107	Construction Work In Progress	13,328,819	27,998,216	41,327,035
108	Accumulated Provision For Depreciation Of Utility Plant	881,611	80,203	961,814
131	Cash	(254,963)	-	(254,963)
143	Other Accounts Receivable	9,450	41	9,491
151	Fuel Stock	362,373,333	-	362,373,333
163	Stores Expense Undistributed	310,321	877,729	1,188,050
165	Prepayments	8,069,115	17,605,343	25,674,458
182.3	Other Regulatory Assets	3,028,916	-	3,028,916
183	Preliminary Survey And Investigation Charges	757,002	-	757,002
184	Clearing Accounts	22,182,754	6,264,209	28,446,963
186	Miscellaneous Deferred Debits	551,360	-	551,360
188	Research, Development And Demonstration Expenses	(540,892)	1,298,712	757,820
228.3	Accumulated Provision For Pensions And Benefits	4,383,601	-	4,383,601
232	Accounts Payable	11,240,906	(12,007)	11,228,898
236	Taxes Accrued	(1,822,072)	-	(1,822,072)
242	Miscellaneous Current And Accrued Liabilities	917,112	-	917,112
408.1	Taxes Other Than Income Taxes, Utility Operating Income	1,709,687	3,826,232	5,535,920
416	Cost And Expenses Of Merchandising, Jobbing And Contract Work	32	-	32
421	Miscellaneous Nonoperating Income	4,473	(16,926)	(12,454)
426.1	Donations	431,373	32,909	464,282
426.3	Penalties	10,751	22,452	33,203
426.4	Expenditures For Certain Civic, Political And Related Activities	239,893	699,305	939,198
426.5	Other Deductions	590,542	469,345	1,059,887
431	Other Interest Expense	3,790	-	3,790
456	Other Electric Revenues	149	-	149
500	Operation Supervision And Engineering	567,465	5,132,074	5,699,539
501	Fuel	214,416	1,067,056	1,281,472
502	Steam Expenses	169,393	27,869	197,262
505	Electric Expenses	2,020	-	2,020
506	Miscellaneous Steam Power Expenses	891,340	495,479	1,386,818
510	Maintenance Supervision And Engineering	316,130	354,648	670,778
511	Maintenance Of Structures	23,451	-	23,451
512	Maintenance Of Boiler Plant	17,607	-	17,607
513	Maintenance Of Electric Plant	164,327	37,122	201,448

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (LKS)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	2016 Total
514	Maintenance Of Miscellaneous Steam Plant	38,923	0	38,923
546	Operation Supervision And Engineering	1,568	-	1,568
549	Miscellaneous Other Power Generation Expenses	11,600	(0)	11,600
554	Maintenance Of Miscellaneous Other Power Generation Plant	1,656	-	1,656
556	System Control And Load Dispatching	81,407	1,869,417	1,950,824
557	Other Expenses	-	(0)	(0)
560	Operation Supervision And Engineering	16,550	1,585,913	1,602,464
561.1	Load Dispatch-Reliability	30,668	429,366	460,034
561.2	Load Dispatch-Monitor And Operate Transmission System	430,338	1,547,209	1,977,547
561.3	Load Dispatch-Transmission Service And Scheduling	-	778,308	778,308
561.5	Reliability, Planning And Standards Development	8,830	805,976	814,806
561.6	Transmission Service Studies	43,944	5,407	49,352
562	Station Expenses	67,028	72,427	139,455
563	Overhead Line Expenses	35,518	40,248	75,766
566	Miscellaneous Transmission Expenses	988,471	1,883,623	2,872,095
570	Maintenance Of Station Equipment	151,724	467,493	619,218
571	Maintenance Of Overhead Lines	79,191	106,171	185,362
573	Maintenance Of Miscellaneous Transmission Plant	19,871	265,589	285,460
580	Operation Supervision And Engineering	170,248	1,125,028	1,295,276
581	Load Dispatching	152,137	291,709	443,846
582	Station Expenses	31,819	1,672	33,491
583	Overhead Line Expenses	976,142	511	976,653
586	Meter Expenses	168,364	422,796	591,160
588	Miscellaneous Distribution Expenses	620,396	1,339,783	1,960,180
590	Maintenance Supervision And Engineering	106	2,481	2,587
592	Maintenance Of Station Equipment	15,786	213	15,999
593	Maintenance Of Overhead Lines	110,471	134,033	244,503
598	Maintenance Of Miscellaneous Distribution Plant	82,705	1,254	83,959
901	Supervision	294,460	2,570,180	2,864,640
902	Meter Reading Expenses	2,416	163,224	165,641
903	Customer Records And Collection Expenses	4,534,171	8,521,388	13,055,559
905	Miscellaneous Customer Accounts Expenses	6,750	1,053	7,803
907	Supervision	1,478	399,562	401,040
908	Customer Assistance Expenses	16,675,715	276,283	16,951,998

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (LKS)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	2016 Total
909	Informational And Instructional Advertising Expenses	418,013	30,265	448,278
910	Miscellaneous Customer Service And Informational Expenses	255,611	715,294	970,905
913	Advertising Expenses	789,548	25,196	814,744
920	Administrative And General Salaries	1,343,396	32,926,503	34,269,899
921	Office Supplies And Expenses	761,267	5,066,858	5,828,125
923	Outside Services Employed	3,943,180	9,716,924	13,660,104
924	Property Insurance	-	274,178	274,178
925	Injuries And Damages	6,448	163,318	169,766
926	Employee Pensions And Benefits	4,417,347	14,504,164	18,921,510
928	Regulatory Commission Expenses	185,394	-	185,394
930.1	General Advertising Expenses	16,070	57	16,127
930.2	Miscellaneous General Expenses	(682,934)	4,005,261	3,322,327
931	Rents	220,781	1,275,435	1,496,216
935	Maintenance Of General Plant	1,285,788	720,196	2,005,984
Grand Total		469,583,570	160,791,978	630,375,548

BILLED TO KENTUCKY UTILITIES COMPANY (KU) FROM THE SERVICE COMPANY (PPL SERVICES CORPORATION)
FOR THE 2016 CALENDAR YEAR

FERC Account	FERC Account Description	Direct Charge	Indirect Charge	Total
107	Construction Work In Progress	-	76,630	76,630
165	Prepayments	117,814	632,457	750,271
186	Miscellaneous Deferred Debits	28,250	-	28,250
500	Operation Supervision And Engineering	-	988	988
580	Operation Supervision And Engineering	-	3,992	3,992
920	Administrative And General Salaries	161,456	395,502	556,958
921	Office Supplies And Expenses	149,350	101,792	251,142
923	Outside Services Employed	171,282	89,827	261,109
926	Employee Pensions And Benefits	127,094	313,212	440,306
930.2	Miscellaneous General Expenses	302,318	60,187	362,505
Grand Total		1,057,565	1,674,586	2,732,151

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 3

Responding Witness: William S. Seelye

- Q-3. Refer to KU's response to Commission Staff's Second Request for Information ("Staff's Second Request"), Item 4. Explain how the 30 percent maximum increase for any light was determined.
- A-3. For KU, the maximum increase for any light under Rate LS was 20 percent. See page 55 of the Direct Testimony of William Steven Seelye in this proceeding. The 30 percent cap was the maximum increase used for LG&E in its current base rate proceeding (Case No. 2016-00371).

Because the unit cost analysis for individual light types would have supported increases of over 100 percent for certain lights, the Company determined that it was appropriate to place a cap on the maximum increase for any single type of light. The Company proposed a 20 percent maximum increase to any lighting type to recognize the principles of rate continuity and gradualism. Ultimately, the 20 percent cap is based on what the Company considered to be a reasonable maximum increase for lighting rates in this proceeding. A lower cap was used for KU than LG&E because the overall increase for KU was lower than LG&E, thus placing a limitation on the movement toward cost of service that the Company determined that it could implement.

In prior rate cases, the Companies capped the maximum increase at a somewhat higher level. For example, in KU's Case No. 2009-00548, the Company proposed to limit the increase to any lighting type to 55 percent. Furthermore, in Case No. 2009-00548, the Commission *approved* increases for individual lighting rates in the 30 to 55 percent range. For example, the rate for the 9,500 HPS light was increased by 34 percent; the rate for the 22,000 HPS light was increased by 40 percent; and the 5,800 HPS light was increased by 55 percent.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 4

Responding Witness: William S. Seelye

- Q-4. Refer to KU's response to Staff's Second Request, Item 7.
- a. Provide this response in Excel format with the formulas intact and unprotected.
 - b. Confirm that the proposed rates as calculated on page 1 of 6 will change if the Commission approves an energy rate for Rate Schedule GS different from that proposed by KU.
 - c. Confirm that the proposed rates as calculated on page 1 of 6 will change if the Commission approves a return on equity ("ROE") different from the 10.23 percent proposed by KU, which was used to calculate the levelized fixed charge percentage on page 4 of 6.
- A-4.
- a. The information requested is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.
 - b. Confirmed.
 - c. Confirmed.

The attachment is
Confidential and
provided under seal in
a separate file in Excel
format.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 5

Responding Witness: Lonnie E. Bellar

- Q-5. Refer to Staff's Second Request, Item 18. Provide a schedule that shows all expenses attributable to IMEA and IMPA, both separately and in total, in the base year and forecasted test year that are excluded for ratemaking purposes.
- A-5. Below are all expenses attributable to IMEA and IMPA. All are excluded for ratemaking purposes.

FERC	Base Period			Test Period		
	IMEA	IMPA	Total	IMEA	IMPA	Total
408	\$ 102,743	\$ 109,185	\$ 211,928	\$ 84,462	\$ 89,758	\$ 174,220
500	302,522	321,493	624,015	271,531	288,557	560,088
501	126,416	134,343	260,759	180,145	191,441	371,586
502	235,985	250,783	486,768	240,637	255,727	496,364
505	28,633	30,429	59,062	132,043	140,322	272,365
506	210,257	223,441	433,698	226,330	240,523	466,853
510	145,857	155,004	300,861	118,086	125,491	243,577
511	124,701	132,520	257,221	113,244	120,346	233,590
512	946,154	1,005,484	1,951,638	1,437,922	1,528,088	2,966,010
513	275,102	292,352	567,454	192,016	204,057	396,073
514	56,145	59,666	115,811	48,727	51,783	100,510
925	12,580	13,369	25,948	10,540	11,200	21,740
926	340,563	361,919	702,482	313,134	332,769	645,903
Total	<u>\$2,907,658</u>	<u>\$3,089,987</u>	<u>\$5,997,645</u>	<u>\$3,368,817</u>	<u>\$3,580,062</u>	<u>\$6,948,879</u>

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 6

Responding Witness: John P. Malloy

- Q-6. Refer to KU's response to Staff's Second Request, Item 29. Explain what happens if a damaged meter base prevents the installation of an Advanced Metering Systems ("AMS") meter, the customer refuses to sign the waiver, and the customer does not hire a contractor to repair the meter base.

- A-6. Because meter bases sufficiently damaged to prevent AMS installation are unsafe, KU would inform the customer that service could not be provided until the meter base is repaired as per 807 KAR 5:006 Section 15(1)(b).

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 7

Responding Witness: John P. Malloy

- Q-7. Refer to Staff's Second Request, Item 31. Given that bad-debt expense in the base year is lower than the five-year average and that the proposed AMS project, if approved, will begin in 2017 and could result in lower bad-debt expense, explain why bad-debt expense should not be lowered from the base year to the forecasted test year.
- A-7. The 5-year average was used to develop the revenue requirement. Despite the reduction in the uncollectible rate for the most recent year of the 5 years, the Company believes the 5-year average represents a reasonable figure. There are fluctuations in the uncollectible rate in those 5 years, not a clear trend, therefore using a 5-year average was reasonable. In addition, revenues are projected to increase from the base year to the forecasted test year, resulting in an increase in bad-debt expense.

Also, the Companies have not assumed AMS will reduce bad debt due to the already favorable collection performance of the Companies.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 8

Responding Witness: Gregory J. Meiman

Q-8. Refer to the Staff's Second Request, Item 40.e.

- a. Explain the basis for the reduction in headcount from 954 for the 12 months ended June 30, 2016, to 927 for the 12 months ending June 30, 2018.
- b. Provide the headcount for LG&E and KU Services Company for the 12 months ended June 30, 2016, the base year, and the forecasted test year.

A-8.

- a. The reduction of 27 headcount for the 12 months ending June 30, 2016 compared to the 12 months ending June 30, 2018 (the future test period in this case) is primarily due to generating plant closures and decrease in Metering and Operating Services Departments.
- b. See chart below for the average headcount for the periods requested.

12 months ended 6/30/16	1,606
Base Year	1,650
Test Year	1,693

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 9

Responding Witness: David S. Sinclair

- Q-9. Refer to KU's response to Staff's Second Request, Item 43. The response shows that Paddy's Run Units 11 and 12 had a capacity factor of 0.10 percent in 2016. Explain if these units were operated because generation was needed, or if they were operated for testing/maintenance purposes.
- A-9. Paddy's Run 11 was started a total of 12 times during 2016. Nine of these starts were for testing purposes. Paddy's Run 12 was started a total of 11 times during 2016. Eight of these starts were for testing purposes. When the units were operated for non-testing purposes, it was because generation was needed during periods of high loads and/or outages.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 10

Responding Witness: John K. Wolfe

- Q-10. Refer to KU's response to Staff's Second Request, Item 44. State whether this response indicates that 61 percent of KU's customers will receive no benefit from the proposed Distribution Automation ("DA") program.
- a. Refer to KU's response to Staff's Second Request, Item 45. State whether the sole purpose of the DA program is to improve SAIDI and SAIFI performance.
- A-10. KU's response to Staff's Second Request, Item 44 indicates 61 percent of KU's customers will not receive the direct benefit of having Distribution Automation (DA) implemented on their circuit; however, all customers will benefit from the DA program. DA provides system intelligence in addition to its automated service restoration capabilities. DA's automated switching and its intelligence related to fault location relieve field crews of these manual and time consuming activities thus enhancing crew efficiency and availability to respond to system wide issues. In addition to DA, Section 2.5 beginning on page 19 of Exhibit PWT-5 in Mr. Thompson's testimony describes programs that will continue to be utilized to improve reliability of customers whose circuits are not well suited to DA application.
- a. Improvements in SAIDI and SAIFI are not the sole purpose of the DA program. Additional DA related benefits are described in Section 2.4 on page 18 of Exhibit PWT-5 in Mr. Thompson's testimony.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to Commission Staff's Third Request for Information

Dated February 7, 2017

Question No. 11

Responding Witness: John K. Wolfe

Q-11. Refer to Staff's Second Request for Information, Item 47.

- a. Confirm that between the years of 2016-2022 the operation and maintenance ("O&M") savings is \$480,000 and the O&M costs are \$6 million.
- b. Provide the annual number of outages greater than three hours for the past five years.

A-11.

- a. A total of \$480,000 in O&M savings for LG&E and KU combined is expected between the years 2016 – 2022 as a result of the Distribution Automation (DA) program. A total of \$6 million in O&M costs for LG&E and KU combined is modeled between the years 2016 – 2022 for the DA program.

Note: The financial model referenced includes O&M expenses associated with the DMS over the depreciable life of the DMS asset which ends after 2021. The Companies believe this is the reasonable period for the analysis. Annual ongoing O&M expenses modeled beyond 2021 reflect communication costs associated with the SCADA connected reclosers. A financial scenario including escalated ongoing O&M DMS expenses, as well as assumed DMS upgrade costs and timing through 2051 was completed. This scenario showed the "do nothing" alternative to be the lowest NPVRR of the alternatives evaluated. The Companies believe this scenario is based on an unreasonable period for the analysis because of the uncertainties associated with the 30-year IT system assumptions. Recognizing the uncertainty of 30-year IT system related assumptions, and noting that reliability improvement is the primary objective of the DA program, completion of the DA program remains the recommended alternative based on the justification described in Exhibit PWT-5 of Mr. Thompson's testimony.

- b. KU outages of greater than three hours duration during the past five years are shown in the table below. Major event days are included.

Year	Outages
2012	2,421
2013	2,047
2014	3,502
2015	2,791
2016	2,546

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 12

Responding Witness: Adrien M. McKenzie

- Q-12. Refer to KU's response to Staff's Second Request for Information, Item 54. For each authorized ROE for the proxy group of gas and electric utilities, provide the date of the authorized ROE awarded by each respective regulatory agency.
- A-12. As Mr. McKenzie noted in response to Staff's Second Request for Information, Item 54, he did not conduct a research study to identify the most current ROE authorized for the respective utilities cover by his Utility Group in the course of preparing his Direct Testimony; nor was such a study necessary to support his conclusions and recommendations. In an effort to provide Staff with similar information based on data contained in his workpapers, Mr. McKenzie prepared the summary table attached in response to Staff's Second Request for Information, Item 54, which presents the average authorized ROE reported to investors by Value Line for the firms in the Utility Group. Value Line does not report any details concerning the data sources its analysts relied on in developing this information, including the dates of any relevant regulatory orders.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 13

Responding Witness: John P. Malloy

Q-13. Refer to KU's response to Staff's Second Request, Item 61, which states that "[t]he meters installed as part of the DSM AMS program do not have remote service switches."

- a. Explain if KU will replace all of the meters installed as part of the DSM AMS program with new meters containing the remote service switch.
- b. State the number of meters KU has installed to date in connection with its DSM AMS program.

A-13.

- a. Because the Landis+Gyr meters deployed through the DSM AMS program are new, compatible with the full AMS deployment, and provide the same benefits as the meters KU will deploy in the full deployment with the sole exception of lacking remote service switches, KU does not propose to replace the Landis+Gyr DSM AMS meters during the full deployment. Through the end of 2016 there are 1,199 cellular meters deployed in the KU service territory that will be replaced as part of the AMS Deployment. These meters are not compatible with the full AMS deployment. The cellular meters were required to provide AMS opt in service to areas that do not have mesh network installed. Mesh was installed in the denser population areas such as Lexington and Louisville and cellular was used for more rural areas.
- b. Through the end of 2016 there are 1,689 AMS meters installed in the KU service territory.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 14

Responding Witness: John P. Malloy

- Q-14. Refer to KU's response to Staff's Second Request, Item 63.a. Explain how KU concluded that a 0.8 percent opt-out estimate is reasonable.
- A-14. The 0.8 percent potential opt-out rate is an average of the opt-out percentages reported by eight different utilities between May 2012 and January 2015.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 15

Responding Witness: John P. Malloy / William S. Seelye

Q-15. Refer to KU's response to Staff's Second Request, Item 63.a.

- a. Refer to page 3 of 5.
 - 1) Explain the reference to "Meter Pulse Charge" at the top of the page.
 - 2) Identify the replacement plant that is referenced in line 1.
- b. Explain what is shown on, and the purpose of, pages 4-5 of the response.

A-15. a.

- 1) The reference to "Meter Pulse Charge" was inadvertent, the header should read "AMS Opt-Out- Electric".
 - 2) The replacement plant referenced on line 1 corresponds to the cumulative replacement cost of a representative \$100 investment in metering equipment based on the estimated equipment failure from a 5-year Iowa Survivor Curve. The purpose of including the replacement cost in the revenue requirement calculation is to give effect to the impact on carrying charges of the expected failure of the metering equipment over the life of the equipment.
- b. Page 4 of the attachment shows the tax depreciation rates used to calculate deferred income taxes in the carrying charge calculations shown on page 5 of the attachment. In the calculation, a five-year (MACRS) depreciation rate was utilized. The carrying charge calculations shown on page 5 of the attachment are used to calculate the present value revenue requirement factor and the annual carrying charge rate used to determine the monthly charge for an opt out. Note that the Company is *not* proposing an opt-out charge in this proceeding.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 16

Responding Witness: John P. Malloy

Q-16. Refer to Staff's Second Request, Item 63.b. A reason given for not allowing an opt-out for an AMS meter is because of the possibility of a remote location of a premise and meters must "hop", or communicate with each other, and a missing meter creates a hole that may increase costs to communicate with the remaining meters.

- a. Explain whether hops can occur in a densely populated area.
- b. If opt-outs are permissible, provide an estimate and supporting work papers for the number of hops KU anticipates in its service territory.

A-16.

- a. Yes, hops occur in densely populated areas. To clarify, a meter "hop" describes normal meter communications between meters and either other meters or directly to infrastructure (i.e. routers or collectors). Company believes Staff is inquiring about communication holes in a densely populated area. If so, yes, holes can occur in a densely populated area. LG&E has observed meter communication holes in the downtown network deployment. This occurs because the meter does not have a direct line to another meter, router, or collector because it is obstructed by concrete, or other physical material e.g., when a meter is located in a basement or underground area.
- b. To estimate the number of hops, if opt-outs are permissible, the Company would need to know where each opt-out was located to assess the impact on meter communications. It is not possible to estimate the number of communication holes without knowing the number of opt-outs and their location to other meters, routers, and collectors. Thus, it is not possible to calculate the number of hops anticipated in the service territory with opt-out.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 17

Responding Witness: John P. Malloy

Q-17. Refer to KU's response to Staff's Second Request, Item 64.a.

- a. State whether data transmission four times per day will be the upper limit. If not, provide the maximum number of times per day data will be transmitted.
- b. Explain what "working to remotely read all MV 90 meters" entails.

A-17.

- a. Four times per day to transmit customer information to the head end is not the upper limit. Although the number of times per day customer usage data can be transmitted is configurable, the Company plans this data be scheduled to transmit no more than six times per day (e.g. every four hours), consistent with the system manufacturer's best practice recommendation.
- b. The Company is evaluating options to provide a service similar to the AMS proposal to our customers with MV-90 billable meters. This would include new metering infrastructure with enhanced data communication hardware to support the complex meter installations, enhanced telecommunications, and MV-90 system and process configuration.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 18

Responding Witness: John P. Malloy

Q-18. Refer to KU's response to Staff's Second Request, Item 64.e. The response states that there are about 30,000 customers whose premises don't have cellular coverage and that it may be costly to serve those premises with the mesh network.

- a. Explain if KU and LG&E have contacted the cellular provider regarding the lack of coverage for these customers.
- b. Explain if the 30,000 customers are predominantly rural KU customers.

A-18.

- a. The cellular coverage analysis referenced was performed by Verizon as part of the AMS Opt-In offering. KU and LG&E have not contacted the cellular provider regarding the lack of coverage for these customer.
- b. The 30,000 customers whose premises do not have Verizon cellular coverage are predominantly rural KU customers. The table below provides a breakdown of customers' premises by utility, which totals to less than 30,000 because some customers have more than one meter:

Company Code Group	Customer Premises
KU	20,615
LG&E	41
ODP	1,396
Overall Result	22,052

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 19

Responding Witness: Robert M. Conroy

Q-19. Refer to KU's response to Staff's Second Request, Item 67.

- a. State whether the rate schedule under which the current Supplemental/Standby Service Rider ("SS Rider") customer is taking service is Schedule TODP. If not, state the rate schedule.
- b. State the effect the changes being proposed to the rate class identified in part a. of this response will have on the SS Rider customer.

A-19.

- a. The customer is taking service under rate schedule TODP.
- b. Using the customer's 12-months ending August 2016 consumption data, under the proposed Rate TODP with the elimination of Rider SS, the customer will see a bill reduction of 37.6%.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 20

Responding Witness: William S. Seelye

- Q-20. Refer to KU's response to Staff's Second Request, Item 76, and to the November 4, 2016 Order in Case No. 2016-00274¹ approving the Solar Share Program Rider ("Solar Share Order"). Refer to pages 11-12 of the Solar Share Order. Provide the calculation of the Solar Capacity Charge using KU's proposed ROE in Excel format with the formulas intact and unprotected.
- A-20. See attachment being provided in Excel format.

¹ Case No. 2016-00274, *Electronic Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Approval of an Optional Solar Share Program Rider* (Ky. PSC Dec. 12, 2016).

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

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 21

Responding Witness: Robert M. Conroy

Q-21. Refer to KU's response to Staff's Second Request, Item 84.b.(1) and (2) .

- a. Given that KU is exploring ways to modify Rate PS, and given the AMS proposed in the Application, is there a PS-Time-of-day rate tariff that KU can propose in this proceeding? If not, explain.
- b. State whether adopting a PS-time-of-day rate would impact revenues so that KU would propose to do so only as part of a rate proceeding. If not, and if not done in this proceeding, state when KU would anticipate filing for approval of a PS-time-of-day tariff.

A-21.

- a. One benefit of the full AMS deployment will be detailed customer usage data that is not available today for certain classes of customers. This detailed data will enable the Company to better understand the usage patterns of the customers and will enhance the development of other Time-of-Day rates. The Company currently does not have sufficient support to propose a PS Time-of-Day rate.
- b. The Company believes the appropriate time for adding of new rates is in a rate case proceeding, but has added pilot rates in the past per Commission orders.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 22

Responding Witness: William S. Seelye

- Q-22. Refer to KU's response to Staff's Second Request, Item 87. Provide the supporting calculations for each of the percentages shown for the four rate classes listed.
- A-22. See attached. The customers identified in the response to PSC 2-87 were the customers within the respective rate classes that indicated the highest percentage increase because of the implementation of the new ratchet. It should be noted that the customers identified in Rate TODP and Rate TODS did not take service for a full 12-month period. Therefore, the percentage impact of the change in the ratchet might not be representative of the impact for a full 12-month period. The lack of a full 12 months of data for these customers could have been the reason that they were identified as showing the largest percentage increase.

Rate Category	Business Partner	Billing Period	Contract Capacity (kW)	Total KWH	Base Demand @ 75% Ratchet (kW)	Base Demand @ 100% Ratchet (kW)	Intermediate Demand @ 50% Ratchet (kW)	Peak Demand @ 50% Ratchet (kW)	Basic Service Charge (\$)	Energy Charge (\$)	Base Demand Charge @ 75% (\$)	Base Demand Charge @ 100% (\$)	Intermediate Demand Charge (\$)	Peak Demand Charge (\$)	Total Charges @ 75% Base Demand (\$)	Total Charges @ 100% Base Demand (\$)	Delta (100% - 75%) (\$)	% Delta (100% - 75%) (%)	
FLS	Customer #1	2015/09	195,000	43,416,000	171,810	195,000	171,810	128,184	\$ 1,500	\$ 1,451,831	\$ 283,487	\$ 321,750	\$ 424,371	\$ 449,924	\$ 2,611,113	\$ 2,649,376	\$ 38,263	1.5%	
FLS	Customer #1	2015/10	195,000	46,008,000	192,858	195,000	192,858	141,677	\$ 1,500	\$ 1,538,508	\$ 318,215	\$ 321,750	\$ 476,359	\$ 497,288	\$ 2,831,869	\$ 2,835,404	\$ 3,535	0.1%	
FLS	Customer #1	2015/11	195,000	41,256,000	196,042	196,042	196,042	135,718	\$ 1,500	\$ 1,379,601	\$ 323,469	\$ 323,469	\$ 484,224	\$ 476,372	\$ 2,665,165	\$ 2,665,165	\$ -	0.0%	
FLS	Customer #1	2015/12	195,000	39,960,000	193,623	196,042	193,623	135,705	\$ 1,500	\$ 1,336,262	\$ 319,478	\$ 323,469	\$ 478,248	\$ 476,325	\$ 2,611,813	\$ 2,615,805	\$ 3,992	0.2%	
FLS	Customer #1	2016/01	195,000	47,736,000	190,907	196,042	190,907	136,478	\$ 1,500	\$ 1,596,292	\$ 314,997	\$ 323,469	\$ 471,541	\$ 479,037	\$ 2,863,366	\$ 2,871,838	\$ 8,473	0.3%	
FLS	Customer #1	2016/02	195,000	46,008,000	194,795	196,042	194,795	137,644	\$ 1,500	\$ 1,538,508	\$ 321,412	\$ 323,469	\$ 481,144	\$ 483,131	\$ 2,825,694	\$ 2,827,752	\$ 2,057	0.1%	
FLS	Customer #1	2016/03	195,000	43,200,000	194,799	196,042	194,799	139,614	\$ 1,500	\$ 1,444,608	\$ 321,418	\$ 323,469	\$ 481,152	\$ 490,044	\$ 2,738,722	\$ 2,740,774	\$ 2,052	0.1%	
FLS	Customer #1	2016/04	195,000	49,896,000	190,949	196,042	190,949	140,748	\$ 1,500	\$ 1,668,522	\$ 315,066	\$ 323,469	\$ 471,644	\$ 494,025	\$ 2,950,756	\$ 2,959,160	\$ 8,404	0.3%	
FLS	Customer #1	2016/05	195,000	50,112,000	194,012	196,042	194,012	136,089	\$ 1,500	\$ 1,675,745	\$ 320,119	\$ 323,469	\$ 479,209	\$ 477,672	\$ 2,954,245	\$ 2,957,595	\$ 3,350	0.1%	
FLS	Customer #1	2016/06	195,000	48,168,000	195,605	196,042	195,605	136,893	\$ 1,500	\$ 1,610,738	\$ 322,748	\$ 323,469	\$ 483,145	\$ 480,494	\$ 2,898,625	\$ 2,899,346	\$ 721	0.0%	
FLS	Customer #1	2016/07	195,000	51,624,000	189,894	196,042	189,894	138,941	\$ 1,500	\$ 1,726,307	\$ 313,324	\$ 323,469	\$ 469,037	\$ 487,683	\$ 2,997,851	\$ 3,007,996	\$ 10,145	0.3%	
FLS	Customer #1	2016/08	195,000	50,976,000	192,168	196,042	192,168	136,999	\$ 1,500	\$ 1,704,637	\$ 317,077	\$ 323,469	\$ 474,655	\$ 480,866	\$ 2,978,735	\$ 2,985,128	\$ 6,392	0.2%	
										\$ 18,000	\$ 18,671,558	\$ 3,790,810	\$ 3,878,193	\$ 5,674,727	\$ 5,772,860	\$ 33,927,955	\$ 34,015,338	\$ 87,383	0.3%

Rate Category	Business Partner	Billing Period	Contract Capacity (kW)	Total KWH	Base Demand @ 75% Ratchet (kW)	Base Demand @ 100% Ratchet (kW)	Intermediate Demand @ 50% Ratchet (kW)	Peak Demand @ 50% Ratchet (kW)	Basic Service Charge (\$)	Energy Charge (\$)	Base Demand Charge @ 75% (\$)	Base Demand Charge @ 100% (\$)	Intermediate Demand Charge (\$)	Peak Demand Charge (\$)	Total Charges @ 75% Base Demand (\$)	Total Charges @ 100% Base Demand (\$)	Delta (100% - 75%) (\$)	% Delta (100% - 75%) (%)	
RTS	Customer #2	2015/09	1,000	48,000	750	1,000	133	133	\$ 1,400	\$ 1,614	\$ 1,590	\$ 2,120	\$ 699	\$ 892	\$ 6,195	\$ 6,725	\$ 530	8.6%	
RTS	Customer #2	2015/10	1,000	36,000	750	1,000	122	119	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 644	\$ 798	\$ 5,643	\$ 6,173	\$ 530	9.4%	
RTS	Customer #2	2015/11	1,000	36,000	750	1,000	116	110	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 608	\$ 736	\$ 5,545	\$ 6,075	\$ 530	9.6%	
RTS	Customer #2	2015/12	1,000	36,000	750	1,000	105	100	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 554	\$ 671	\$ 5,426	\$ 5,956	\$ 530	9.8%	
RTS	Customer #2	2016/01	1,000	36,000	750	1,000	123	123	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 645	\$ 825	\$ 5,671	\$ 6,201	\$ 530	9.3%	
RTS	Customer #2	2016/02	1,000	36,000	750	1,000	135	135	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 712	\$ 909	\$ 5,822	\$ 6,352	\$ 530	9.1%	
RTS	Customer #2	2016/03	1,000	48,000	750	1,000	113	109	\$ 1,400	\$ 1,614	\$ 1,590	\$ 2,120	\$ 592	\$ 730	\$ 5,926	\$ 6,456	\$ 530	8.9%	
RTS	Customer #2	2016/04	1,000	36,000	750	1,000	110	110	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 576	\$ 736	\$ 5,512	\$ 6,042	\$ 530	9.6%	
RTS	Customer #2	2016/05	1,000	24,000	750	1,000	106	106	\$ 1,400	\$ 807	\$ 1,590	\$ 2,120	\$ 556	\$ 710	\$ 5,063	\$ 5,593	\$ 530	10.5%	
RTS	Customer #2	2016/06	1,000	36,000	750	1,000	102	102	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 537	\$ 685	\$ 5,423	\$ 5,953	\$ 530	9.8%	
RTS	Customer #2	2016/07	1,000	36,000	750	1,000	111	110	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 581	\$ 737	\$ 5,518	\$ 6,048	\$ 530	9.6%	
RTS	Customer #2	2016/08	1,000	36,000	750	1,000	117	117	\$ 1,400	\$ 1,211	\$ 1,590	\$ 2,120	\$ 616	\$ 788	\$ 5,605	\$ 6,135	\$ 530	9.5%	
										\$ 16,800	\$ 14,932	\$ 19,080	\$ 25,440	\$ 7,319	\$ 9,217	\$ 67,348	\$ 73,708	\$ 6,360	9.4%

Rate Category	Business Partner	Billing Period	Contract Capacity (kW)	Total KWH	Base Demand @ 75% Ratchet (kW)	Base Demand @ 100% Ratchet (kW)	Intermediate Demand @ 50% Ratchet (kW)	Peak Demand @ 50% Ratchet (kW)	Basic Service Charge (\$)	Energy Charge (\$)	Base Demand Charge @ 75% (\$)	Base Demand Charge @ 100% (\$)	Intermediate Demand Charge (\$)	Peak Demand Charge (\$)	Total Charges @ 75% Base Demand (\$)	Total Charges @ 100% Base Demand (\$)	Delta (100% - 75%) (\$)	% Delta (100% - 75%) (%)	
TODP	Customer #3	2016/07	1,150	600	863	1,150	8	8	\$ 330	\$ 21	\$ 2,519	\$ 3,358	\$ 43	\$ 51	\$ 2,964	\$ 3,803	\$ 840	28.3%	
TODP	Customer #3	2016/08	1,150	1,200	863	1,150	15	9	\$ 330	\$ 41	\$ 2,519	\$ 3,358	\$ 80	\$ 61	\$ 3,030	\$ 3,870	\$ 840	27.7%	
										\$ 660	\$ 62	\$ 5,037	\$ 6,716	\$ 123	\$ 112	\$ 5,994	\$ 7,673	\$ 1,679	28.0%

Rate Category	Business Partner	Billing Period	Contract Capacity (kW)	Total KWH	Base Demand @ 75% Ratchet (kW)	Base Demand @ 100% Ratchet (kW)	Intermediate Demand @ 50% Ratchet (kW)	Peak Demand @ 50% Ratchet (kW)	Basic Service Charge (\$)	Energy Charge (\$)	Base Demand Charge @ 75% (\$)	Base Demand Charge @ 100% (\$)	Intermediate Demand Charge (\$)	Peak Demand Charge (\$)	Total Charges @ 75% Base Demand (\$)	Total Charges @ 100% Base Demand (\$)	Delta (100% - 75%) (\$)	% Delta (100% - 75%) (%)	
TODS	Customer #4	2016/06	1,000	1,200	750	1,000	24	18	\$ 200	\$ 42	\$ 2,430	\$ 3,240	\$ 147	\$ 141	\$ 2,960	\$ 3,770	\$ 810	27.4%	
TODS	Customer #4	2016/07	1,000	2,600	750	1,000	43	32	\$ 200	\$ 92	\$ 2,430	\$ 3,240	\$ 261	\$ 250	\$ 3,233	\$ 4,043	\$ 810	25.1%	
TODS	Customer #4	2016/08	1,000	17,400	750	1,000	97	97	\$ 200	\$ 614	\$ 2,430	\$ 3,240	\$ 593	\$ 758	\$ 4,595	\$ 5,405	\$ 810	17.6%	
										\$ 600	\$ 749	\$ 7,290	\$ 9,720	\$ 1,000	\$ 1,148	\$ 10,787	\$ 13,217	\$ 2,430	22.5%

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 23

Responding Witness: David S. Sinclair / William S. Seelye

Q-23. Refer to KU's response to Staff's Second Request, Item 88.d.

- a. The response indicates that secondary combustion turbines ("CTs") are operated primarily for testing and emergencies. State whether it is considered to be an emergency when a curtailment is implemented.
- b. Prepare and provide an analysis which calculates the amount of CSR credits that would result if all of KU's and LG&E's CTs were used in the calculation, rather than just large-frame CTs.

A-23.

- a. No, it is not considered an emergency when a curtailment is implemented. In addition to testing as mentioned in the Company's response to PSC 2-96, the secondary CTs are also used when load levels and reserve requirements exceed, or are expected to exceed, the level that could be met with the Company's other resources. Therefore, prior to an emergency situation, all available generation - including all secondary combustion turbines - would be online, curtailable load would be interrupted, power would be purchased from the market if available, and contingency reserves would be utilized as necessary. Beyond those steps, if a capacity deficiency developed, the Company would follow North American Electric Reliability Council (NERC) procedures, including requesting the initiation of an Energy Emergency Alert (EEA). The first level of an EEA occurs after an entity has curtailed all non-firm wholesale energy sales and has all available resources in use and is concerned about sustaining its required operating reserves. During the second EEA level, an entity is no longer able to provide its customers' expected energy requirements and is not maintaining the required levels of operating reserves. An EEA level 3 occurs when firm load interruption is imminent or in progress.
- b. See attachment being provided in Excel format.

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

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 24

Responding Witness: John K. Wolfe

- Q-24. Refer to KU's response to Staff's Second Request, Item 90. Provide documentation supporting the statement, "The Company's lighting vendors have indicated to the Company that the average service life of an LED fixture is lower than conventional fixtures."
- A-24. KU does not have documentation. Average service life of LED fixtures has not been validated in a field environment. Industry literature estimates life expectancies anywhere from 30,000 hours to 100,000 hours dependent on fixture type and operating environment with the most referenced figure being 50,000 hours (approximately 13 years). In this case, KU assumes after 13 years, LED fixtures will be replaced versus non-LED lights that will be maintained on average every six years to extend their life well beyond 13 years.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 25

Responding Witness: William S. Seelye

- Q-25. Refer to KU's response to Staff's Second Request, Item 95. State whether the word "production" was included in the response in error. If not, explain what is meant by "production income."
- A-25. The word "statement" was inadvertently omitted after the words "production income" in the response. Therefore, the response should have been, "Yes, all production income *statement* and balance sheet accounts have been allocated using the same methodology as used in the Company's most recent base rate proceeding." *Production income statement accounts* would include fixed production operation and maintenance expenses along with margins on off-system sales.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to Commission Staff’s Third Request for Information
Dated February 7, 2017

Question No. 26

Responding Witness: William S. Seelye / Robert M. Conroy

Q-26. Refer to KU's response to Staff’s Second Request, Item 98. Given the per unit results contained in the Excel spreadsheets, explain the following:

- a. The reason KU is proposing to increase the Rate GS – Three Phase basic service charge to \$50.40.
- b. The reason KU is proposing to increase the Rate AES – Three Phase basic service charge to \$140.00.
- c. The reason KU is proposing to increase the Rate PS – Primary Service basic service charge to \$240.00.
- d. The reason KU is proposing to increase the RTS basic service charge to \$1,400.00.
- e. The reason KU is proposing to decrease the Rate FLS – Primary Service basic customer charge to \$330.

A-26.

a. KU is proposing the same basic service charge for KU as for LG&E. Because LG&E had the lower of the two customer costs, the LG&E cost of service study formed the basis of the customer charge for both LG&E and KU. (The Rate GS customer cost for LG&E was \$38.69 compared to a customer cost of KU of \$43.70.) The basic service charges for single and three phase service under Rate GS were designed to approximately equal the \$38.69 customer cost from the BIP cost of service study *for LG&E* on a weighted average basis while maintaining the current 40% rate differential for three-phase service compared to single-phase service. The actual weighted average basic service charge for LG&E’s Rate GS is \$38.41, as shown below:

Single phase	\$31.50 x 344,482.43 cust-mo =	\$10,851,197
Three phase	\$50.40 x 198,362.36 cust-mo =	<u>\$ 9,997,463</u>
Total		\$20,848,660
Total Customer Months (344,482 + 198,362)		<u>542,845</u>
Weighted Average charge		\$38.41/Cust/Mo

Because the charges were rounded down to the nearest ten cents, the weighted average proposed charge of \$38.41 is slightly lower than the weighted average unit cost of \$38.69 from the cost of service study.

- b. The basic service charges for single and three phase service under Rate AES were designed to approximately equal the \$106.41 customer cost from the BIP cost of service study for KU on a weighted average basis while maintaining the current percentage rate differential between three-phase service and single-phase service. The actual weighted average basic service charge for KU’s Rate AES is \$108.65, as shown below:

Single phase	\$ 85.00 x 4,056 cust-mo =	\$ 344,760
Three phase	\$140.00 x 3,060 cust-mo =	<u>\$ 428,400</u>
Total		\$ 773,160
Total Customer Months (4,056 + 3,060)		<u>7,116</u>
Weighted Average charge		\$108.65/Cust/Mo

Because the charges were rounded to the nearest five dollars, the weighted average proposed charge of \$108.65 is slightly higher than the weighted average unit cost of \$106.41 from the cost of service study.

- c. KU and LG&E are both proposing the same basic service charge for Rate PS – Primary Service. The charge is based on the unit cost from the LG&E BIP cost of service study. The Companies are proposing a basic service charge for Rate PS – Primary of \$240 which was based on a unit cost of \$240.15 from LG&E’s cost of service study. The charge was rounded down to the nearest ten dollars.
- d. KU and LG&E are both proposing the same basic service charge for Rate RTS. The charge is based on the unit cost from the LG&E BIP cost of service study. The Companies are proposing a basic service charge for Rate RTS of \$1,400.00 which was based on a unit cost of \$1,477.57 from LG&E’s cost of service study. The charge was rounded down to the nearest one hundred dollars.
- e. Neither KU nor LG&E currently serve any customers under Rate FLS – Primary Service. Therefore, the rate class was not included in the cost of service studies. The basic service charge for Rate FLS – Primary Service was set at the same level as Rate TODP for both companies. The proposed charge for Rate TODP was determined on the basis of a customer cost of \$330.11 from the LG&E BIP cost of service study for Rate TODP. The charge was rounded down to the nearest ten dollars.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 27

Responding Witness: William S. Seelye

- Q-27. Refer to KU's response to Staff's Second Request, Item 100.b. State whether the cost-of-service studies filed in this proceeding support the \$.07328 Lighting Energy Service rate. Include in the response the amounts and location in the cost-of-service studies that support the \$.07328.
- A-27. The unit energy cost from the BIP version of the cost of service study is \$0.07328. The attached Excel version of the BIP cost of service study includes the unit cost sheets for Lighting Energy Rate LE and Traffic Energy Rate TE.

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

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 28

Responding Witness: William S. Seelye

- Q-28. Refer to KU's response to Staff's Second request, Item 100.c. The response states that O&M expenses are expected to occur every 13 years for LED fixtures and every six years for traditional lighting fixtures. Despite the higher upfront cost of LED fixtures as compared to traditional lighting fixtures, explain if it is cost beneficial to KU to install LED fixtures rather than traditional fixtures, given that traditional fixtures use more energy and require O&M expense roughly twice as often as LED fixtures.
- A-28. The LED rates are currently more costly than other alternatives. Based on the information that is currently available to the Company, it would appear that LED fixtures will be more costly to install and to maintain than traditional fixtures. However, this assessment is not based on actual experience with installing and maintaining lights. The Company has limited experiential data on the maintenance of leased LED lighting installations. While traditional fixtures do require maintenance approximately twice as often, maintaining a traditional fixture consists only of changing the bulb and the photo cell. In contrast, bulbs cannot be replaced with LED fixtures. When the LED diodes fail, the entire fixture must be replaced, which is significantly more expensive than simply replacing a bulb and photo cell on a traditional fixture. Furthermore, the planned energy consumption of LED fixtures is assumed to be less than the traditional fixtures; however, the energy use makes up a very small percentage of the overall cost of offering LED.

LED rates are optional service offerings that the Company is introducing because of interest expressed by customers. Despite the higher cost of the LED fixtures, customers might be interested because (i) LED fixtures promote conservation, (ii) they are considered more environmentally friendly, and (iii) they may have a better quality of light.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 29

Responding Witness: William S. Seelye

- Q-29. Refer to KU's response to Staff's Second Request, Item 102. Explain why the split between Primary and Secondary differs from those calculated in the cost-of-service study filed in KU's most recent base rate proceeding, Case No. 2014-00371².
- A-29. The analysis used to determine the primary/secondary splits included in the cost of service study filed in Case No. 2014-00371 was performed in 2001. The Company performed a new primary/secondary split analysis for the cost of service studies filed in the current proceeding. Therefore, the primary/secondary split analysis reflects changes in plant in service that have occurred during the intervening 15 years.

² Case No. 2014-00371, *Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates* (Ky. PSC June 30, 2015)

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 30

Responding Witness: William S. Seelye

- Q-30. Refer to KU's response to Staff's Second Request, Item 103. Explain why the split between Primary and Secondary differs from those calculated in the cost-of-service study filed in Case No. 2014-00371.
- A-30. The analysis used to determine the primary/secondary splits included in the cost of service study filed in Case No. 2014-00371 was performed in 2001. The Company performed a new primary/secondary split analysis for the cost of service studies filed in the current proceeding. Therefore, the primary/secondary split analysis reflects changes in plant in service that have occurred during the intervening 15 years.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 31

Responding Witness: Christopher M. Garrett

Q-31. Refer to KU's response to Staff's Second Request, Item 107. KU states that it proposes to true-up the regulatory liability amortization based on the actual fees received as of the end of the base period.

- a. Explain why KU is not proposing to include an expected level of revenues related to the refined coal production facilities in the forecasted test year.
- b. Provide the level of revenues expected to be received in the forecasted test year.

A-31.

- a. As discussed in the response to PSC 2-107, although KU is currently negotiating with a tax equity investor for the Ghent refined coal facility, no agreement has yet been executed. Accordingly, no refined coal fees were forecasted in the test year. To the extent refined coal production arrangements are implemented at KU sites, as represented in Case No. 2015-00264, KU intends to flow the benefits back to customers. KU proposed and the Commission approved the establishment of regulatory liabilities for the proceeds to be allocated to Kentucky retail customers in Case No 2015-00264 for this purpose. KU will credit the fee payments to Account 254, Other Regulatory Liabilities if and when received.
- b. Because KU has yet to reach an agreement with a tax equity investor, KU cannot provide a reliable estimate as to the level of revenues derived from the facility for the forecasted test period. KU commits to provide an update to the Commission regarding the negotiations with the tax equity investor by the end of April 2017.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 32

Responding Witness: John P. Malloy

Q-32. Refer to KU's response to Staff's Second Request, Item 109.

- a. State whether KU worked with The Muhlenberg Co. Board of Education (Greater Muhlenberg Parks and Recreation System) or ("Customer") to design the system used at the park. If so, state whether KU informed the customer that the park could be on a lower cost tariff if the system were wired to have multiple meters.
- b. Provide a copy of all correspondence between KU and Customer.

A-32.

- a. KU Electric Distribution Operations (EDO) design personnel used customer-provided load information to design the electric facilities for the Customer's park. EDO design personnel were responsible for the safe reliable design of electric facilities, therefore tariffs were not discussed. As a learning organization, the Company has educated the KU EDO design personnel on the Company's current tariff structure.
- b. See attached.

From: [Bruner, Cheryl](#)
To: [Customer Commitment](#)
Subject: Fwd: Electric rate hearing
Date: Friday, December 02, 2016 8:36:57 AM

FYI from yesterday.

Sent from my iPhone

Begin forwarded message:

From: "Bruner, Cheryl" [REDACTED]
Date: December 1, 2016 at 4:18:59 PM EST
To: 'Tommy Barton' [REDACTED]
Cc: 'Kathy Jacobi' [REDACTED], 'Steve Wells'
[REDACTED], "Combs, David" [REDACTED]
[REDACTED], "Daniel, David (Business Service Center)" [REDACTED]
[REDACTED], "Trimble, Robert" [REDACTED]
Subject: RE: Electric rate hearing

Hello Tommy,

We anticipate any changes to the rates will likely be effective 7/1/17.

Your team is on our list of customers to meet with. David Combs will be reaching out to review with you what our proposed rates would look like for Muhlenberg County Park if approved by the KPSC.

We can also answer your questions about the rate case process, when hearings are likely, etc.

David Combs will be in touch.

Kind regards,

Cheryl

From: Tommy Barton [REDACTED]
Sent: Thursday, December 01, 2016 4:11 PM
To: Bruner, Cheryl [REDACTED]
Cc: 'Kathy Jacobi' [REDACTED]; 'Steve Wells'
[REDACTED]
Subject: Electric rate hearing

Cheryl,

This is Tommy Barton from the Muhlenberg County Park. I see where the new electric rates have been proposed, We are wondering when they will be heard by the Public Service Commission. As you know our park was changed to Power Service rate and our yearly electric bill for the public park went up \$20,000. Obviously this is a heavy burden on our annual budget and could be devastating to our future.

Tommy Barton

GMPRS Director

From: [Bruner, Cheryl](#)
To: "Kathy Jacobi"
Cc: [Steve Wells](#); [Tommy Barton](#); [Customer Commitment](#)
Subject: RE: Follow-up on Muhlenberg County
Date: Monday, June 06, 2016 10:04:46 AM

Kathy,

Enjoy your time off and we can talk more later, but to answer your question, the E'town Sports Park is served by Nolin RECC.

As to the setting of rates, the Kentucky Public Service Commission oversees and administers the process relating to utility ratemaking. When the time comes that LG&E and KU file for changes in rates, there is a lengthy and robust process involving an application and many rounds of data submittal before the Commission approves any changes. Both we and the Commission seek out public comment as we endeavor to balance the interests of all customers. Please know that your concern is understood.

Again, have a wonderful vacation and I look forward to speaking with you.

Kind regards,
Cheryl

-----Original Message-----

From: Kathy Jacobi [REDACTED]
Sent: Thursday, June 02, 2016 3:24 PM
To: Bruner, Cheryl [REDACTED]
Cc: Steve Wells [REDACTED]; Tommy Barton [REDACTED]
Subject: Follow-up on Muhlenberg County

Hi Cheryl -

I'm trying to tie up some stray items before I'm out on vacation next week, and wanted to touch base with you on the items we discussed at our last meeting.

Can you tell me whether KU services the Elizabethtown Sports Park at 1401 West Park Rd in Elizabethtown? If not, can you tell me who does? We have been told they are supplied by KU, but your last note said you were looking into it. We are trying to pull together a comparison of the energy rates for all the larger ball parks in the state.

Also, we would like for KU, as our provider, to provide us with the specific steps that should be taken by us to provide our perspective to the appropriate parties before the next rate case. Perhaps KU does not provide any assistance in this area, and it's up to us to see if we can find out the process. If that's the case, we'll immediately start digging into it. So far, our research indicates that ball parks serviced by KU carry an enormous cost differential compared to other ball parks across the state. Perhaps we'll find that is not the case when our comparison is completed, but right now things look bleak for recreational facilities serviced by KU.

I appreciate your assistance. While I'll be traveling next week, I'll be checking email occasionally in case you need to reach me.

Many thanks,
Kathy Jacobi

Kathy Jacobi
President, Felix E. Martin, Jr. Foundation Office [REDACTED]
Cell [REDACTED]

Making a Difference in Muhlenberg County
www.felixmartinfoundation.org<<http://www.felixmartinfoundation.org>>

MUHLENBERG CO BD			Current Rate: KUCME113 General Service Three Phase Alt Rate: KUCIE562 Power Service Secondary		
510 W MAIN ST					
POWDERLY KY 42367-5487					
200 COUNTY PARK RD					
GREENVILLE KY 42345					
Avg KWH Cost: 0.105			Alt KWH Cost: 0.3845	Alt KWH Cost: -266%	Created On: 11/12/2015

End of billing period	# Days	Load Factor	KWH	Base Demand	Base PF Adj Demand	Int PF Adj Demand	Peak PF Adj Demand	Curr Base Revenue	Alt Base Revenue	Difference
11/24/2014	31	68	14,160	28.00	0.00	0.00	0.00	1,438.16	2,165.21	-727.05
12/26/2014	32	69	10,640	20.00	0.00	0.00	0.00	1,090.59	2,039.47	-948.88
01/28/2015	33	0	0	0.00	0.00	0.00	0.00	40.00	1,659.41	-1,619.41
02/25/2015	28	0	0	0.00	0.00	0.00	0.00	40.00	1,659.41	-1,619.41
03/27/2015	30	0	0	0.00	0.00	0.00	0.00	40.00	1,659.41	-1,619.41
04/28/2015	32	0	40	0.00	0.00	0.00	0.00	43.95	1,660.84	-1,616.89
05/26/2015	28	20	22,200	169.30	0.00	0.00	0.00	2,232.03	3,854.20	-1,622.17
06/25/2015	30	7	7,760	165.20	0.00	0.00	0.00	806.22	3,266.45	-2,460.23
07/23/2015	28	5	4,600	147.60	0.00	0.00	0.00	494.20	2,844.69	-2,350.49
08/24/2015	32	5	5,120	147.40	0.00	0.00	0.00	545.55	2,859.76	-2,314.21
09/25/2015	32	7	8,640	163.80	0.00	0.00	0.00	893.11	3,273.31	-2,380.20
10/23/2015	28	4	4,000	161.50	0.00	0.00	0.00	434.96	2,728.06	-2,293.10
Totals	364		77,160	1,002.80	0.00	0.00	0.00	8,098.77	29,670.22	-21,571.45

End of billing period	Customer Charge	Energy Charge	Demand Charge	Base Revenue	Electric DSM	Fuel Adj Billings	ECR	School Tax	Franchise Fees	Sales Tax	Total Bill History
11/24/2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/26/2014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/28/2015	35.00	0.00	0.00	35.00	0.00	0.00	2.81	0.00	0.00	0.00	37.81
02/25/2015	35.00	0.00	0.00	35.00	0.00	0.00	2.37	0.00	0.00	0.00	37.37
03/27/2015	35.00	0.00	0.00	35.00	0.00	0.00	2.42	0.00	0.00	0.00	37.42
04/28/2015	35.00	3.69	0.00	38.69	0.08	0.00	2.58	0.00	0.00	0.00	41.35
05/26/2015	35.00	2,047.95	0.00	2,082.95	46.84	-17.54	94.77	0.00	0.00	0.00	2,207.02
06/25/2015	35.00	715.86	0.00	750.86	16.37	-1.01	50.70	0.00	0.00	0.00	816.92
07/23/2015	39.11	449.53	0.00	488.64	2.85	-2.94	34.95	0.00	0.00	0.00	523.50
08/24/2015	40.00	505.55	0.00	545.55	3.17	-11.93	32.81	0.00	0.00	0.00	569.60
09/25/2015	40.00	853.11	0.00	893.11	5.36	-24.88	51.37	0.00	0.00	0.00	924.96
10/23/2015	40.00	394.96	0.00	434.96	2.48	-11.60	29.73	0.00	0.00	0.00	455.57
Totals		4,970.65	0.00	5,339.76							5,651.52

510 W MAIN ST POWDERLY KY 42367-5487 200 COUNTY PARK RD GREENVILLE KY 42345 	Existing Rate: General Service Three Phase				Alt Rate: Power Service Secondary			
	Contract Capacity			0.00	Contract Capacity			169.30
	0% Cont KW Min			0.00	60% Base Min Cont KW			101.58
	12 Month Peak KW			0.00	12 Month Peak KW			0.00
	0% Peak KW Min			0.00	0% Peak KW Min			0.00
	Base Min DMD KW			20.00	Base Min DMD KW			50.00

Existing Rate Category: General Service Three Phase - General Service Three Phase											
End of billing period	Cust Charge	Billed KWH	KWH Charge	Energy Charge	KW Base DMD	Base PF %	Base 90% PF Adj	KW Base Charge	Demand Charge	M A	Base Revenue
11/24/2014	40.00	14,160	0.09874	1,398.16	28.00	0.00	0.00	0.00	0.00		1,438.16
12/26/2014	40.00	10,640	0.09874	1,050.59	20.00	0.00	0.00	0.00	0.00		1,090.59
01/28/2015	40.00	0	0.09874	0.00	0.00	0.00	0.00	0.00	0.00		40.00
02/25/2015	40.00	0	0.09874	0.00	0.00	0.00	0.00	0.00	0.00		40.00
03/27/2015	40.00	0	0.09874	0.00	0.00	0.00	0.00	0.00	0.00		40.00
04/28/2015	40.00	40	0.09874	3.95	0.00	0.00	0.00	0.00	0.00		43.95
05/26/2015	40.00	22,200	0.09874	2,192.03	169.30	0.00	0.00	0.00	0.00		2,232.03
06/25/2015	40.00	7,760	0.09874	766.22	165.20	0.00	0.00	0.00	0.00		806.22
07/23/2015	40.00	4,600	0.09874	454.20	147.60	0.00	0.00	0.00	0.00		494.20
08/24/2015	40.00	5,120	0.09874	505.55	147.40	0.00	0.00	0.00	0.00		545.55
09/25/2015	40.00	8,640	0.09874	853.11	163.80	0.00	0.00	0.00	0.00		893.11
10/23/2015	40.00	4,000	0.09874	394.96	161.50	0.00	0.00	0.00	0.00		434.96
Totals				7,618.77					0.00		8,098.77
Alt Rate Category: Power Service Secondary - Power Service Secondary											
11/24/2014	90.00	14,160	0.03572	505.80	28.00	0.00	0.00	15.45	1569.41	M	2,165.21
12/26/2014	90.00	10,640	0.03572	380.06	20.00	0.00	0.00	15.45	1569.41	M	2,039.47
01/28/2015	90.00	0	0.03572	0.00	0.00	0.00	0.00	15.45	1569.41	M	1,659.41
02/25/2015	90.00	0	0.03572	0.00	0.00	0.00	0.00	15.45	1569.41	M	1,659.41
03/27/2015	90.00	0	0.03572	0.00	0.00	0.00	0.00	15.45	1569.41	M	1,659.41
04/28/2015	90.00	40	0.03572	1.43	0.00	0.00	0.00	15.45	1569.41	M	1,660.84
05/26/2015	90.00	22,200	0.03572	792.98	169.30	0.00	0.00	17.55	2971.22		3,854.20
06/25/2015	90.00	7,760	0.03572	277.19	165.20	0.00	0.00	17.55	2899.26		3,266.45
07/23/2015	90.00	4,600	0.03572	164.31	147.60	0.00	0.00	17.55	2590.38		2,844.69
08/24/2015	90.00	5,120	0.03572	182.89	147.40	0.00	0.00	17.55	2586.87		2,859.76
09/25/2015	90.00	8,640	0.03572	308.62	163.80	0.00	0.00	17.55	2874.69		3,273.31
10/23/2015	90.00	4,000	0.03572	142.88	161.50	0.00	0.00	15.45	2495.18		2,728.06
Totals				2,756.16					25834.06		29,670.22

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

Response to Commission Staff's Third Request for Information
Dated February 7, 2017

Question No. 33

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

- Q-33. Refer to KU's response to Staff's Second Request, Item 110.
- a. Explain how Fredonia Food & More ("Fredonia") was charged more under Rate GS than Rate PS.
 - b. Provide Fredonia's usage (kWh and kW) and amounts billed for each month of 2014, 2015, and 2016.
 - c. State whether Fredonia was being served under Rate PS as of February 6, 2009.
 - d. State whether KU received a written request to be transferred to Rate GS from Rate PS. If so, provide a copy of the request.
 - e. Provide a copy of all correspondence between KU and Fredonia.
- A-33.
- a. Under the GS Three-Phase rate, a customer is charged a basic service charge and an energy charge. The current kWh energy charge for GS Three-Phase is 10.426 cents per kWh.
- Under the PS Secondary rate, a customer is charged a basic service charge, energy charge and a demand charge. The current kWh energy charge for PS Secondary is 3.572 cents per kWh.
- If a customer is on the PS Secondary rate and uses enough kWh at the lower cost per kWh, the customer's bill under PS Secondary can be lower even with the demand charge.
- The table below outlines a case study using Fredonia's usage in December 2016 and the PS Secondary and GS Three-Phase rates:

December 2016 Fredonia Comparison Case (Using Actual Fredonia December 2016 Usage vs. December 2016 Tariffs)		
Actual Fredonia December 2016 Usage		
Total Energy Used (kWh)	Demand Billed (kW) <i>Note: 50.0 is minimum billable demand</i>	Demand Measured (kW)
17,720	50.0	38.5
December 2016 Tariff Rates		
Tariff Charges	PS Secondary	GS 3-Phase
Basic Service Charge (Fixed Charge)	\$90.00	\$40.00
Energy Charge (per kWh)	\$0.0357	\$0.1043
Demand Charge (per kW)	\$16.95	N/A
December 2016 Fredonia December Bill Calculation		
	Original Rate	Current Rate
Tariff Rate	PS Secondary	GS 3-Phase
Basic Service Charge	\$90.00	\$40.00
Energy Charge (per kWh)	\$632.96	\$1,847.49
Demand Charge (per kW)	\$847.50	N/A
Total Bill for December 2016	\$1,570	\$1,887

- b. See attached.
- c. At all relevant times, the Availability of Service section of KU’s Rate PS has stated, “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” (emphasis added). Prior to the implementation of new rates on February 6, 2009, Fredonia was served under Rate LP (Large Power Service); however, KU placed Fredonia on the PS Secondary rate as of February 6, 2009, because Fredonia’s minimum average demand was greater than 50 kW and therefore met the criteria of Rate PS, not because KU had previously served Fredonia under the then-eliminated Large Power Service rate schedule. As a result, Fredonia did not have the option to remain on Rate PS when its load changed such that it was no longer eligible for service under the parameters of Rate PS. After Fredonia’s load characteristics changed, KU followed its tariff by

moving Fredonia to the only rate schedule under which Fredonia was eligible for service, namely Rate GS.

- d. No. As noted in KU's response to (c) above, Fredonia did not have the option to remain on Rate PS when its minimum average load dropped below the required 50 kW minimum average load for an extended period of time. When KU moved Fredonia to Rate GS, it did so in accordance with its tariff, not in response to Fredonia's request.
- e. See attached.

Fredonia Food & More

Customer usage and monthly bills for 2014, 2015, 2016

Rate Category/Tariff	Billing Period	Revenue Amount \$	Total Energy KWH	Demand Billed KW	Demand Measured KW
PS Secondary	2014/01	\$ 1,585.12	22,600	50.0	38.6
PS Secondary	2014/02	\$ 1,556.23	20,600	50.0	39.0
PS Secondary	2014/03	\$ 1,571.39	20,200	50.0	38.6
PS Secondary	2014/04	\$ 1,526.68	19,360	50.0	38.4
PS Secondary	2014/05	\$ 1,780.47	21,840	50.0	43.8
PS Secondary	2014/06	\$ 2,078.10	27,800	50.0	46.6
PS Secondary	2014/07	\$ 2,017.58	27,800	50.0	48.0
PS Secondary	2014/08	\$ 1,773.14	23,720	50.0	47.0
PS Secondary	2014/09	\$ 2,017.18	29,800	50.0	46.3
PS Secondary	2014/10	\$ 1,611.46	21,800	50.0	45.3
PS Secondary	2014/11	\$ 1,566.66	20,960	50.0	40.3
PS Secondary	2014/12	\$ 1,526.33	21,000	50.0	40.0
TOTAL - 2014		\$ 20,610.34	277,480	600	511.9
PS Secondary	2015/01	\$ 1,541.16	19,280	50.0	37.7
PS Secondary	2015/02	\$ 1,571.41	19,880	50.0	37.1
PS Secondary	2015/03	\$ 1,515.23	19,080	50.0	37.5
GS Three Phase	2015/04	\$ 1,877.30	18,600	0	40.1
GS Three Phase	2015/05	\$ 2,019.37	20,280	0	43.3
GS Three Phase	2015/06	\$ 2,566.88	25,200	0	44.3
GS Three Phase	2015/07	\$ 2,614.05	25,600	0	45.0
GS Three Phase	2015/08	\$ 2,695.50	25,800	0	49.2
GS Three Phase	2015/09	\$ 2,892.65	27,920	0	48.6
GS Three Phase	2015/10	\$ 2,247.23	21,400	0	43.1
GS Three Phase	2015/11	\$ 2,040.00	19,560	0	39.8
GS Three Phase	2015/12	\$ 2,102.73	20,640	0	38.1
TOTAL - 2015		\$ 25,683.51	263,240	150	503.8
GS Three Phase	2016/01	\$ 2,110.88	20,440	0	39.6
GS Three Phase	2016/02	\$ 1,885.44	17,240	0	38.6
GS Three Phase	2016/03	\$ 2,063.01	18,280	0	38.6
GS Three Phase	2016/04	\$ 1,946.33	18,440	0	42.5
GS Three Phase	2016/05	\$ 2,310.43	22,200	0	41.0
GS Three Phase	2016/06	\$ 2,311.32	21,880	0	41.6
GS Three Phase	2016/07	\$ 2,609.52	24,880	0	45.3
GS Three Phase	2016/08	\$ 2,996.80	28,080	0	45.0
GS Three Phase	2016/09	\$ 2,528.46	23,560	0	45.5
GS Three Phase	2016/10	\$ 2,177.59	20,600	0	41.9
GS Three Phase	2016/11	\$ 2,225.51	21,200	0	43.8
GS Three Phase	2016/12	\$ 1,887.13	17,720	0	38.5
TOTAL - 2016		\$ 27,052.42	254,520	0	501.9



March 17th, 2015

Fredonia Food & More Grocery
249 Dave Kelly Rd
Providence KY 42450-9511

Re: 101 Cassidy Ave – Fredonia, Kentucky



Dear Valued Customer:

We recently conducted a rate analysis on the account referenced above. It no longer meets the criteria to receive service under the Power Service (PS) rate. Based on your energy usage, the General Service (GS) rate is now the proper rate for this account. Accordingly, we have changed your rate. Your billing under the GS rate will begin within the next two billing periods.

We have enclosed copies of both the GS and PS rate schedules for your review. You can also access this information on our website at lge-ku.com.

Please contact us at 859-367-1200 (outside Lexington at 1-800-383-5582) or by email at bsc@lge-ku.com if you have any questions. Our representatives are available Monday through Friday from 7 a.m. until 6 p.m.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Combs', written over a white background.

David Combs
Business Service Center

Enclosure(s)

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 34

Responding Witness: John P. Malloy / Christopher M. Garrett

- Q-34. Refer to KU's response to Kentucky Industrial Utility Customers, Inc.'s First Set of Data Requests ("KIUC's First Request"), Item 16, and KU's response to the Attorney General's Initial Data Request ("AG's First Request"), Item 314. Explain why the Commission should accept a 15-year depreciation life for the proposed AMS meters when KU acknowledges that the meters have an expected service life of 20 years and the AMS cost-benefit summary using a 15-year period shows a net cost (in net present value) as compared to the cost-benefit summary using a 20-year period, which shows a net benefit.
- A-34. As the request in KIUC 1-16(j) notes, John J. Spanos stated in his testimony, "These [AMS] meters are expected to have a shorter average life and maximum life than the standard meters they are replacing. The most consistent average life within the industry for new technology electric meters is 15 years, with a maximum life potential of 25 years." Based on LG&E and KU's combined experience with advanced metering technology and their understanding of the particular AMS meters they are proposing to deploy, the Companies believe a 20-year service life expectation was appropriate to use for their cost-benefit analysis, and they note that a 20-year service life is within the life-potential range noted in the testimony of Mr. Spanos. The Companies further recognize that Mr. Spanos is a depreciation expert, and believe his approach to choosing a depreciation life of 15 years for AMS meters based on average industry experience was and is reasonable for the purposes of setting depreciation rates. Nonetheless, the Companies would not object to using a 20-year depreciation life if the Commission believes it is appropriate.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 35

Responding Witness: David S. Sinclair

- Q-35. Refer to KU's response to KIUC's First Request, Item 68. Explain why a discount rate of 10.62 percent is used in this analysis, but a 6.62 percent rate was used in the Application, Exhibit JPM-1, page 38 of 169.
- A-35. The value labeled "cost of capital" in the attachment to the response to KIUC 1-68 (6.49%) was used as the discount rate in calculating fixed charge rate. The value labeled "discount rate" in that attachment was not used to calculate the fixed charge rate, but was used to calculate the levelized cost factor for operating and maintenance expenses. The discount rate of 6.62% in the Application, Exhibit JPM-1 was calculated using a return on equity assumption of 10.23% and debt cost assumption of 4.16%, while the discount rate used in the attachment to the response to KIUC 1-68 (6.49%) was calculated using a return on equity assumption of 10.0% and debt cost assumption of 4.13%.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 36

Responding Witness: Robert M. Conroy

- Q-36. Refer to KU's response to KIUC's First Request, Item 74. Given the response, state whether KU is agreeable to reducing the Curtailable Service Rider credit non-compliance charge. If so, state the effect this change would have on revenue requirements for the test year.
- A-36. The Company would be agreeable to establish the non-compliance charge as four months of the approved CSR credit. At the proposed CSR credit in this proceeding, four months of the credit would result in a reduction to the current non-compliance charge of \$16. Since the forecasted test year does not contain any assumption that CSR customers would not comply with any requested interruption, there is no revenue associated with non-compliance. Any reduction to the non-compliance charge would not affect the revenue requirement in this proceeding.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 37

Responding Witness: Robert M. Conroy / William S. Seelye

Q-37. Refer to KU's response to KIUC's First Request, Item 95, and KU's response to Commission Staff's Initial Request for Information, Item 53.

- a. Explain what the numerator and denominator represent in the following cells of Excel spreadsheet "ATT_KU_PSC_1_ElecScheduleM_Forecaseted," Tab Sch M-2.3 pgs 3-15: D237, D273, D310, D354.
- b. If the Commission did not approve the change in ratchet percentages proposed by KU, provide the effect it would have on the revenue at proposed rates for the following rate classes: TODS, TODP, RTS, and FLS.

A-37.

- a. In calculating the billing determinants for the Base Demand Charge, the Company performed a historical analysis of the demands for each customer served under TODS, TODP, RTS, and FLS at the proposed 100% ratchet and at the current ratchet. The numerator in the referenced cells represents the billing demands from the historical analysis at the proposed ratchet, and the denominator represents the billing demands from the historical analysis at the current ratchet and contract capacity level. The historical relationships between the 100% ratchet demands and the 75% ratchet demands are then used to scale the forecasted billing demands so that they represent forecasted billing demands at the 100% ratchet level. In other words, the ratios in cells D237, D273, D310, and D354 reflect the relationship between the 100% ratchet demand and the 75% ratchet demands based on an analysis of individual customer demands for the 12 months ended August 31, 2016. The analysis was provided in response to KIUC 1-95. This approach is necessary because the Company does not develop monthly forecasted billing demands for each individual customer served under TODS, TODP, RTS, and FLS.
- b. If the Commission does not approve the change in the ratchet percentages proposed by KU, there will be no effect on the revenue at the proposed rates for TODS, TODP, RTS, and FLS. The revenue impact will be the same.

The implementation of the ratchet was designed to be revenue neutral *for each rate class*. However, the demand charge was determined using the billing units calculated

at the proposed ratchet percentage. If the Commission decided not to approve the proposed ratchet percentage, the billing units would change (decrease) from those shown in the calculation of the proposed rates. The proposed demand charge would not be applicable to billing units using the current ratchet percentage because the charge was not determined on that basis. Keeping the current ratchet percentage would require a redetermination of the demand charge based on billing demands using the current ratchet percentage. Once the demand charge is recalculated using billing units determined from the current ratchet percentage, the revenue for each class would not change.

It should also be noted that the Company's proposed ratchet for the Base Demand Charges in Rates TODS, TODP, RTS and FLS is being implemented in conjunction with the elimination of its Supplemental or Standby Rider SS. If the 100% ratchet is not approved by the Commission then some other rate structure or cost recovery mechanism would need to be introduced to ensure that customers who desire to receive supplemental or standby service pay an appropriate level of fixed cost demand revenue to cover the cost of the transmission and distribution facilities installed to provide service to those customers.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 38

Responding Witness: William S. Seelye

- Q-38. Refer to KU's response to the First Request for Information of the Kentucky School Boards Association ("School Board's First Request"), Item 1.c. Explain how the investment in the infrastructure required to enable AMS meter functionality and the back-office overhead to schedule and manage the installation is allocated in the cost-of-service studies.
- A-38. The investment in the infrastructure was allocated based on the cost-weighted number of customers (i.e., the number of customers in each rate class multiplied by the estimated cost of the metering equipment for the class). The back-office costs for scheduling and managing the AMS equipment are allocated on the same basis as customer information expenses, which are allocated based on the cost-weighted number of customers (i.e., the number of customer in each rate class multiplied by the estimated customer information expenses for the class).

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 39

Responding Witness: John K. Wolfe

- Q-39. Refer to KU's response to School Board's First Request, Item 14. Provide supporting documentation for the statement that "[t]he current maintenance cost included in the LED rate codes exceeds the maintenance cost included in the rate codes of HPS, Mercury Vapor, and Metal Halide lights."
- A-39. KU does not have documentation. LED maintenance is estimated to require replacing the entire fixture on average every 13 years, whereas HPS, Mercury Vapor and Metal Halide fixtures require the replacement of only their bulb and photocell on average every six years.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 40

Responding Witness: Robert M. Conroy

- Q-40. Refer to KU's response to the School Board's First Request, Item 15. State whether a light controlled by a timer or otherwise remotely controlled would still be charged the full lighting rate in the tariff, regardless of its level of use.
- A-40. The Company stated in response to KSBA 1-15 that it would consider providing LED outside lighting that can be set on timers, but the current and proposed Lighting Service ("LS") and Restricted Lighting Service ("RLS") tariffs determination of energy consumption is billed based on the kilowatt-hours listed in Tariff Sheet No. 67 (Kilowatt-Hours Consumed by Lighting Units). To accommodate timers or remote controls, changes would need to be made in the LS and RLS tariffs to include the cost of a timer or remote controlled device and a meter to accurately measure the level of use.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 41

Responding Witness: William S. Seelye

- Q-41. Refer to KU's response to School Board's First Request, Item 19. Provide an explanation of a demand loss factor.
- A-41. The demand loss factors are the estimated line and transformer loss percentages at the times of the monthly peaks. The demand loss percentages are higher than the corresponding energy loss percentages for the rate classes because line and transformer losses increase as current (and thus demand) increases on the system. These percentages were developed from the Company's most recent loss study, which was completed in 2012.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 42

Responding Witness: Daniel K. Arbough

- Q-42. Refer to KU'S response to the School Board's First Request, Item 33. Explain the reason(s) for the increase in Legal 3RD Party expense from the base period to the forecasted test period.
- A-42. The 2017-2018 budget for legal services was based on historical costs, and then allocated using the Revenue, Total Assets and Number of Employees Ratio from the cost allocation manual. The 2016 actuals through August 2016 that were included in the base period were below historical costs for KU which resulted in the increase from the base period to the test period.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 43

Responding Witness: William S. Seelye

- Q-43. Refer to KU's response to Kentucky League of Cities' Initial Data Request ("KLC's First Request"), Item 26, Attachment, page 1 of 1.
- a. The attachment provides the calculation of O&M expenses for only four lights. Provide the calculation for the O&M expenses for all lights in Exhibits WSS-4 and WSS-5.
 - b. State whether this attachment indicates that bulbs are replaced every year.
- A-43.
- a. See attached.
 - b. No. High intensity discharge (HID) bulbs are calculated to be replaced every six years while LED fixtures are calculated to be replaced every 13 years.

Derivation of Operation and Maintenance for LS and RLS

Bill Code	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8
Bulb	\$5.51	\$6.39	7.07	7.32	7.58	8.42	9.08	11.92
Photocell	\$3.04	\$3.04	\$3.04	\$3.04	\$3.04	\$3.04	\$3.04	\$3.04
Labor	\$38.76	\$38.76	\$38.76	\$38.76	\$38.76	\$38.76	\$38.76	\$38.76
Total	\$47.31	\$48.19	\$48.87	\$49.12	\$49.38	\$50.22	\$50.88	\$53.72
Operation and Maintenance (\$ / yr)	\$7.89	\$8.03	\$8.15	\$8.19	\$8.23	\$8.37	\$8.48	\$8.95
Amount included in Monthly Unit Cost	\$0.66	\$0.67	\$0.68	\$0.68	\$0.69	\$0.70	\$0.71	\$0.75

Bill Codes								
404	457	412	458	413	409	470	360	
456	447	466	448	469	479	459		
446		410		455	499	496		
		440		471	489	493		
		460		461	475	478		
		454		495	465	498		
		426		491		452		
		494		301		488		
		490		477		474		
		300		497		464		
		476		415				
		492		430				
		414		420				
		411		468				
		401		451				
		467		428				
		450		487				
		472		473				
		462		463				

Derivation of Operation and Maintenance for LED

Bill Code	Type 1	Type 2	Type 3	Type 4	Type 5
Fixture	\$166.03	\$252.49	329.84	632.61	732.06
Photocell	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Labor	\$38.76	\$38.76	\$38.76	\$38.76	\$38.76
Total	\$224.79	\$311.25	\$388.60	\$691.37	\$790.82
Operation and Maintenance (\$ / yr)	\$17.29	\$23.94	\$29.89	\$53.18	\$60.83
Amount included in Monthly Unit Cost	\$1.44	\$2.00	\$2.49	\$4.43	\$5.07

Bill Codes				
393	390	391	392	399
	396	397	398	

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 44

Responding Witness: William S. Seelye / Daniel K. Arbough

Q-44. Refer to KU's response to KLC's First Request, Item 27, Attachment, page 1 of 2. Provide support for the 32.5 percent Materials overhead and the 14.5 percent Labor overhead.

A-44.

Storage, freight and handling	
WAREHOUSE OH - T AND D KU	18.00%
ADMINISTRATIVE AND GENERAL	1.50%
ENGINEERING OH - DIST	13.00%
	<u>32.50%</u>

Contractor labor	
ADMINISTRATIVE AND GENERAL	1.50%
ENGINEERING OH - DIST	13.00%
	<u>14.50%</u>

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 45

Responding Witness: William S. Seelye

- Q-45. Refer to KU's response to KLC's First Request, Item 22.a. The response states that "[t]he higher demand charges for primary voltage customers is a result of the class rate of return for the rates." Given that the rate of return for Primary PS customers is higher than that for Secondary PS customers, explain how the class rate of return for the rates explains the higher demand charges for Primary voltage customers.
- A-45. Because the rate of return component of revenue requirement is primarily recovered through the demand and customer charge components of the rates, a higher rate of return for a rate class will result in higher demand charges, with everything else being equal. Consequently, because the proposed rate of return for PS-Primary is higher than the proposed rate of return for PS-Secondary, the higher return, when multiplied by fixed-cost rate base, results in relatively higher charges for PS-Primary. If the rate of return for PS-Primary were set at the same level as PS-Secondary, the demand-charge for PS-Primary would be lower.

There are also other factors that cause the demand charges for PS-Primary to be higher than for PS-Secondary. For example, customers served under PS-Primary have a lower average load factor (based on annual billing demands) than customers served under PS-Secondary. In addition, the ratio between summer peak demands and annual demands is higher for PS-Primary than for PS-Secondary. These factors, along with the higher rate of return for PS-Primary, affect the level of the demand charges for these two rates schedules.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 46

Responding Witness: William S. Seelye

Q-46. Refer to KU's response to the AG's First Request, Item 277.a., Excel spreadsheet.

- a. Explain why all hours do not have a LOLP.
- b. Explain how the amounts in the "Expected Unserved Energy MWh" were calculated.

A-46.

- a. Technically, all hours would have a LOLP that is greater than zero. However, the output of the modeled LOLP calculation is limited in the number of decimal places displayed. Zero LOLP output values represent LOLP values that are less than the model's lower limit of 0.0000000001.
- b. Expected unserved energy (EUE) for an hour is the sum of the products of each evaluated load increment (up to the hour's forecasted load) and each load increment's associated LOLP. The following simplified example demonstrates how EUE is calculated:

Load Level (MW)	Incremental Load (MW)	LOLP
7,000	1,000	0.001
6,000	1,000	0.0005
5,000	1,000	0.0002
4,000	4,000	0

If load = 6,000 MW, then $EUE = 4,000 * 0 + (5,000 - 4,000) * 0.0002 + (6,000 - 5,000) * 0.0005 = 0.7$ MWh.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 47

Responding Witness: Adrien M. McKenzie

- Q-47. Refer to KU's response to the AG's First Request, Item 249. Provide the most current Blue Chip Financial Forecasts provided in WP-13 that is currently available to KU.
- A-47. An excerpt containing a copy of the most recent source data from the Blue Chip Financial Forecast comparable to that relied on in preparing Mr. McKenzie's testimony and exhibits is attached.

Blue Chip Financial Forecasts[®]

**Top Analysts' Forecasts Of U.S. And Foreign Interest Rates, Currency Values
And The Factors That Influence Them**

Vol. 35, No. 12, December 1, 2016

Wolters Kluwer

Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2018 through 2022 and averages for the five-year periods 2018-2022 and 2023-2027. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year					Five-Year Averages	
		2018	2019	2020	2021	2022	2018-2022	2023-2027
Interest Rates								
1. Federal Funds Rate	CONSENSUS	1.8	2.4	2.8	3.0	3.0	2.6	3.0
	Top 10 Average	2.4	3.1	3.5	3.6	3.7	3.3	3.6
	Bottom 10 Average	1.3	1.5	2.0	2.2	2.2	1.9	2.2
2. Prime Rate	CONSENSUS	4.8	5.5	5.8	6.0	6.0	5.6	5.9
	Top 10 Average	5.4	6.2	6.6	6.7	6.7	6.3	6.6
	Bottom 10 Average	4.3	4.7	5.0	5.3	5.2	4.9	5.1
3. LIBOR, 3-Mo.	CONSENSUS	2.1	2.8	3.1	3.2	3.3	2.9	3.2
	Top 10 Average	2.7	3.4	3.8	3.9	3.9	3.5	3.8
	Bottom 10 Average	1.7	2.1	2.4	2.5	2.5	2.2	2.5
4. Commercial Paper, 1-Mo.	CONSENSUS	2.0	2.7	3.1	3.2	3.2	2.8	3.2
	Top 10 Average	2.5	3.2	3.6	3.7	3.8	3.4	3.7
	Bottom 10 Average	1.6	2.1	2.5	2.6	2.6	2.3	2.6
5. Treasury Bill Yield, 3-Mo.	CONSENSUS	1.7	2.4	2.8	2.9	2.9	2.6	2.9
	Top 10 Average	2.4	3.2	3.5	3.6	3.7	3.3	3.6
	Bottom 10 Average	1.3	1.7	2.0	2.1	2.1	1.8	2.1
6. Treasury Bill Yield, 6-Mo.	CONSENSUS	1.9	2.6	2.9	3.1	3.1	2.7	3.0
	Top 10 Average	2.6	3.3	3.7	3.8	3.8	3.4	3.7
	Bottom 10 Average	1.4	1.9	2.1	2.2	2.2	2.0	2.2
7. Treasury Bill Yield, 1-Yr.	CONSENSUS	2.1	2.7	3.0	3.1	3.2	2.8	3.2
	Top 10 Average	2.8	3.5	3.8	3.9	3.9	3.6	3.8
	Bottom 10 Average	1.5	1.9	2.2	2.3	2.3	2.1	2.3
8. Treasury Note Yield, 2-Yr.	CONSENSUS	2.2	2.9	3.2	3.3	3.3	3.0	3.3
	Top 10 Average	2.9	3.6	4.0	4.0	4.0	3.7	4.1
	Bottom 10 Average	1.7	2.1	2.4	2.5	2.5	2.2	2.4
10. Treasury Note Yield, 5-Yr.	CONSENSUS	2.7	3.2	3.5	3.6	3.6	3.3	3.6
	Top 10 Average	3.3	4.0	4.3	4.3	4.4	4.0	4.4
	Bottom 10 Average	2.2	2.4	2.6	2.8	2.8	2.6	2.8
11. Treasury Note Yield, 10-Yr.	CONSENSUS	3.1	3.5	3.8	3.9	3.9	3.6	3.9
	Top 10 Average	3.8	4.3	4.6	4.6	4.6	4.4	4.7
	Bottom 10 Average	2.5	2.7	2.9	3.1	3.1	2.8	3.1
12. Treasury Bond Yield, 30-Yr.	CONSENSUS	3.8	4.1	4.3	4.4	4.4	4.2	4.5
	Top 10 Average	4.5	5.0	5.2	5.2	5.3	5.0	5.3
	Bottom 10 Average	3.1	3.3	3.5	3.6	3.6	3.4	3.6
13. Corporate Aaa Bond Yield	CONSENSUS	4.8	5.2	5.4	5.5	5.5	5.3	5.5
	Top 10 Average	5.4	5.8	6.1	6.1	6.1	5.9	6.2
	Bottom 10 Average	4.3	4.6	4.8	4.8	4.8	4.7	4.9
13. Corporate Baa Bond Yield	CONSENSUS	5.9	6.2	6.4	6.4	6.4	6.3	6.4
	Top 10 Average	6.5	6.9	7.0	7.1	7.2	6.9	7.2
	Bottom 10 Average	5.3	5.5	5.8	5.8	5.7	5.6	5.7
14. State & Local Bonds Yield	CONSENSUS	4.3	4.6	4.5	4.8	4.8	4.6	4.8
	Top 10 Average	4.9	5.3	5.4	5.5	5.6	5.3	5.6
	Bottom 10 Average	3.8	3.8	3.5	4.0	4.0	3.8	4.0
15. Home Mortgage Rate	CONSENSUS	4.9	5.3	5.5	5.6	5.6	5.4	5.6
	Top 10 Average	5.5	6.0	6.2	6.3	6.3	6.0	6.3
	Bottom 10 Average	4.3	4.6	4.7	4.9	4.9	4.7	4.9
A. FRB - Major Currency Index	CONSENSUS	94.6	93.8	93.6	93.5	93.2	93.8	92.1
	Top 10 Average	97.6	97.9	98.3	98.4	98.4	98.1	97.4
	Bottom 10 Average	91.5	89.6	88.7	88.4	87.9	89.2	86.6
		Year-Over-Year, % Change					Five-Year Averages	
		2018	2019	2020	2021	2022	2018-2022	2023-2027
B. Real GDP	CONSENSUS	2.3	2.2	2.1	2.1	2.1	2.2	2.1
	Top 10 Average	2.7	2.5	2.4	2.4	2.4	2.5	2.5
	Bottom 10 Average	1.9	1.8	1.7	1.8	1.8	1.8	1.8
C. GDP Chained Price Index	CONSENSUS	2.1	2.1	2.1	2.1	2.0	2.1	2.0
	Top 10 Average	2.4	2.4	2.4	2.4	2.2	2.3	2.2
	Bottom 10 Average	1.8	1.8	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	2.4	2.3	2.3	2.3	2.3	2.3	2.3
	Top 10 Average	2.7	2.6	2.6	2.6	2.5	2.6	2.5
	Bottom 10 Average	2.1	2.1	2.2	2.1	2.0	2.1	2.1

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 48

Responding Witness: William S. Seelye

- Q-48. Refer to KU's response to the AG's First Request, Items 294 and 295. With corrections as discussed in these responses, provide corrected cost-of-service studies in Excel spreadsheet format with the formulas intact and unprotected.
- A-48. See the attachments being provided in Excel format. These files also include an additional correction referenced in the response to AG 2-50.

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

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 49

Responding Witness: John P. Malloy

Q-49. Refer to KU's response to the AG's First Request, Item 303.

- a. Provide an update to this response regarding the discussions with Landis+Gyr.
- b. State whether KU has reason to believe that a warranty longer than five years can be obtained.

A-49.

- a. The Company continues contract negotiations. An 18-month warranty from the date of shipment is standard; however, a five-year warranty has been obtained for the AMS Opt-In Customer Offering.
- b. The Company understands based on discussions with Landis+Gyr that warranties from 18 months to five years are typical in the industry. Warranties between five years and seven years are less common and beyond seven years are rare but obtainable, though the costs of such extended warranties can be significant.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 50

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

Q-50. Refer to KU's response to the AG's First Request, Item 332.

- a. State the amount KU is currently charging for remotely disconnecting/reconnecting customers with advanced meters.
- b. Confirm that KU's current disconnect/reconnect charge is based on a visit to the customer's premises and manually disconnecting/reconnecting the meter.
- c. State whether KU plans to propose a remote disconnect/reconnect charge for customers with advanced meters. If not, explain.

A-50.

- a. The Company does not remotely disconnect or reconnect customers with advanced meters because the currently deployed AMS meters deployed do not have this capability. Any customer that is disconnected and reconnected is charged the tariffed rate of \$28.
- b. Confirmed.
- c. The Company plans to utilize the current disconnect/reconnect charge for customers until costs can be collected for providing disconnect/reconnects remotely. The costs associated with remote disconnect/reconnect will be addressed in a future rate case proceeding after the AMS deployment occurs.

KENTUCKY UTILITIES COMPANY

CASE NO. 2016-00370

**Response to Commission Staff's Third Request for Information
Dated February 7, 2017**

Question No. 51

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

Q-51. Refer to the AG's First Request, Item 339. Explain why KU has no plans to offer prepayment services to its customers.

A-51. It is not clear that customers or customer advocates desire to have such a program. Additionally, a prepayment services program could not be offered until meters and IT systems are deployed to support such services. With the full deployment of AMS, the Company will have the ability to consider options such as prepayment.