

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION BY THE)	
PUBLIC SERVICE COMMISSION OF THE)	
ENVIRONMENTAL SURCHARGE)	
MECHANISM OF KENTUCKY UTILITIES)	CASE NO. 2017-00266
COMPANY FOR THE TWO-YEAR BILLING)	
PERIOD ENDING APRIL 30, 2017)	

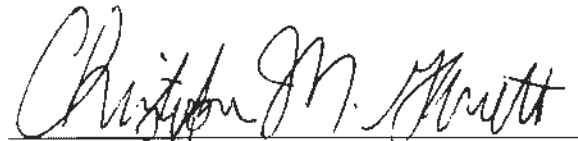
RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO
APPENDIX B OF COMMISSION'S ORDER
DATED JULY 27, 2017

FILED: AUGUST 21, 2017

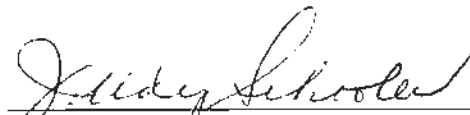
VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Christopher M. Garrett**, being duly sworn, deposes and says that he is Director – Rates for 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.


Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 21st day of August 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, **Heather D. Metts**, being duly sworn, deposes and says that she is Director – Regulatory Accounting & Reporting for LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge and belief.

Heather D. Metts

Heather D. Metts

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 11th day of August 2017.

Judy Schooler)

Notary Public (SEAL)

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

VERIFICATION

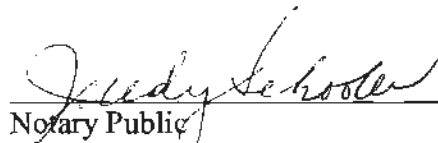
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

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



Derek A. Rahn

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 11th day of August 2017.



_____(SEAL)
Notary Public

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

KENTUCKY UTILITIES COMPANY

Response to the Commission Staff's First Request for Information

Dated July 27, 2017

Case No. 2017-00266

Question No. 1

Witness: Derek A. Rahn / Heather D. Metts

Q-1. Concerning the rate of return on the 2009, 2011, and 2016 amendments to the environmental compliance plan, for the period under review, calculate any true-up adjustment needed to recognize changes in KU's cost of debt, preferred stock, accounts receivable financing (if applicable), or changes in KU's jurisdictional capital structure as of February 28, 2017. Include all assumptions and other supporting documentation used to make this calculation. Any true-up adjustment is to be included in the determination of the over- or under-recovery of the surcharge for the corresponding billing period under review. Provide all exhibits and schedules of your response in Excel spreadsheet format with formulas intact and unprotected and all rows and columns accessible.

A-1. See the attachment provided in Excel format.

KU calculated the true-up adjustment to recognize changes in the cost of debt and capital structure in two steps, shown on Pages 1 and 2 of the attachment to this response. Page 1 reflects the true-up required due to the changes between the Rate Base as filed and the Rate Base as Revised through the Monthly Filings. However, during the period under review, there were no revisions to reflect. Page 2 represents the true-up in the Rate of Return as filed compared to the actual Rate of Return calculations, which impacted the true-up adjustment for the period under review in this case. No further revisions to Rate Base were identified in preparation of this response.

Page 3 provides the adjusted weighted average cost of capital for the expense period ending February 28, 2017 to true-up the months in the review period utilizing the return on equity of 10.00% as agreed to for all pre-2016 ECR Plans and approved by the Commission in its October 25, 2016 Order in Case No. 2016-00214. KU calculated the short- and long-term debt rates using average daily balances and daily interest rates pursuant to the Commission's Order in Case No. 2011-00161.

Page 4 provides the adjusted weighted average cost of capital for the expense period ending February 28, 2017 to true-up the months in the review period utilizing the return on equity of 9.80% as agreed to for the 2016 ECR Plan and approved by the Commission in its August 8, 2016 Order in Case No. 2016-00026. KU calculated the short- and long-term debt rates using average daily balances and daily interest rates pursuant to the Commission's Order in Case No. 2011-00161.

Page 5 provides detail for short- and long-term debt for the expense period ending February 28, 2017.

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

KENTUCKY UTILITIES COMPANY

**Response to the Commission Staff's First Request for Information
Dated July 27, 2017**

Case No. 2017-00266

Question No. 2

Witness: Derek A. Rahn

- Q-2. Prepare a summary schedule showing the calculation of Total E(m), Net Retail E(m), and the surcharge factor for the expense months covered by the applicable billing period. Include the two expense months subsequent to the billing period in order to show the over- and under-recovery adjustments for the months included for the billing period under review. The summary schedule is to incorporate all corrections and revisions to the monthly surcharge filings KU has submitted during the billing period under review. Include a calculation of any additional over- or under-recovery amount KU believes needs to be recognized for the two-year review. Include all supporting calculations and documentation for any such additional over- or under-recovery. Provide all exhibits and schedules of your response in Excel spreadsheet format with formulas intact and unprotected and all rows and columns accessible.
- A-2. See the attachment provided in Excel format that includes the summary schedule and components, which make up the under-recovery for the two-year period.

For the six-month expense period under review, ending February 28, 2017, KU experienced an under-recovery of \$723,722.

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

KENTUCKY UTILITIES COMPANY

**Response to the Commission Staff's First Request for Information
Dated July 27, 2017**

Case No. 2017-00266

Question No. 3

Witness: Christopher M. Garrett

- Q-3. Provide the calculations, assumptions, work papers, and other supporting documents used to determine the amounts KU has reported during each billing period under review for Pollution Control Deferred Income Taxes. Provide all exhibits and schedules of your response in Excel spreadsheet format with formulas intact and unprotected and all rows and columns accessible.
- A-3. KU calculates Deferred Income Taxes as the taxable portion of the difference between book depreciation, using straight line depreciation, and tax depreciation, generally using 20 year MACRS accelerated depreciation, bonus depreciation, or 5 or 7 year rapid amortization. Accelerated depreciation results in a temporary tax savings to the Company and the Accumulated Deferred Tax balance reflects the value of those temporary savings as a reduction to environmental rate base.

See the attachment provided in Excel format for the calculation of Deferred Income Taxes and the balance of Accumulated Deferred Income Taxes reported each month of the review period.

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

KENTUCKY UTILITIES COMPANY

Response to the Commission Staff's First Request for Information
Dated July 27, 2017

Case No. 2017-00266

Question No. 4

Witness: Heather D. Metts

- Q-4. Refer to ES Form 2.50, Pollution Control - Operations & Maintenance Expenses, for the expense months covered by the review period. For each expense account number listed on this schedule, explain the reason(s) for any change in the expense levels from month to month if that change is greater than plus or minus 10 percent.
- A-4. See the attached schedule showing the changes in the operations and maintenance expense accounts for March 2015 through February 2017 expense months. The changes in the expense levels are reasonable and generally occurred as a part of routine plant operations and maintenance or normal testing expenses.

2009 Plan

Monthly variances in the NO_x operation expenses, account 506154, reflect normal Selective Catalytic Reduction (SCR) operations at E.W. Brown Unit 3 (BR3). The variances are driven by the purchase and delivery timing of the raw consumable material (ammonia), as well as variations in generation and coal quality. BR3 was offline for a maintenance outage in April 2015. The credits to this account in October and November 2015 represent pricing adjustments. In addition, BR3 was offline 7 weeks during September 2015 through February 2016 and 3 weeks during March and April 2016 for maintenance outage. BR3 was offline during the month of February 2017.

Fluctuations in the NO_x maintenance expenses, account 512151, are the result of routine monthly maintenance on the SCR at BR3. The increases in March, April and May 2015, were the result of maintenance required to correct the CO₂ monitor and the excessive vibration on the air compressor. The increases in October and November 2015, were the result of five year recertification of the ammonia safety valves, yearly ash screen inspections and catalyst sampling for testing. Soot blower air compressors were inspected in January 2016. The increase in March 2016 was the result of an arsenic mitigation study and the replacement of soot blowing cold air blowers. The increases in June and July 2016 were the result of soot blower safety valve replacement and catalyst sampling. The increase in December 2016 was due to costs associated with an inlet block trip valve and testing done on the bottom catalyst layer.

Landfill operations, account 502013, reflects routine monthly landfill operations at Ghent. The increase in December 2015 was the result of repairing a damaged pump and rental of a temporary replacement pump. The increase in January 2017 was due to hauling costs while repairs were being completed to the pipe conveyor belt.

Landfill maintenance, account 512107, reflects routine monthly landfill operations at Ghent. Increases in July and August 2015, were the result of corrective maintenance on pumps and a transformer. The increase in February 2016 was for maintenance to replace the hydrocyclone line, repair intake valves, dewatering pump rental, blower motor bearing and various other corrective maintenance. The increase in March 2016 was for maintenance to replace a belt scraper, service Kobelco/IR compressor and repair the hydrocyclone feed distributor. The increase in November 2016 was due to repairs to the conveyor vacuum belt. The increase in January 2017 was due to repairs to the pipe conveyor belt.

2011 Plan

Fluctuations in sorbent injection operation expenses, account 506159, are the result of on-going operations of E.W. Brown Units from March 2015 to December 2015 and on-going operations of Ghent Units. Starting 2016, the E.W. Brown units were operated using company labor which was included in base rates. Expenses of \$33,745.76 from January 2017 were incorrectly classified as non-ECR expenses and will be corrected in August 2017.

Fluctuations in sorbent reactant reagent (hydrated lime) expenses, account 506152, are the result of on-going operations of all Ghent and E.W. Brown Units. The variances are driven by the purchase and delivery timing of the raw consumable material as well as variations in generation and coal quality. BR3 was offline from October to November 2015. Ghent Unit 1, 3, 4 (GH1, GH3, GH4) and BR3 were offline for various times in March and April 2016 and BR3 was offline for around 2 weeks in August 2016. The decrease in October 2016 was due the Ghent Unit 2 (GH2) planned maintenance outage.

Fluctuations in sorbent injection maintenance expenses, account 512152, are the result of normal system maintenance. The increase in February 2016 was the result of dust filter replacements. The higher expenses in March and April 2016 were the result of replacing the blow-thru and outlet duct lime lance. The higher expenses in July and August 2016 were the result of calibrating the lime silo level transmitter, replacing a converger valve and replacing the blow-thru and drop-thru for performance test. The increase in October 2016 was to replace lime injection blower hoses. Higher expenses in December 2016 were due to repairs to the injection blower at Ghent.

Fluctuations in baghouse maintenance expenses, account 512156, are the result of normal system maintenance on all Ghent Units and BR3. The system was placed in service in December 2015 and did not require maintenance until February 2016. The increase in

August 2016 was the result of replacing a bearing on the PAC (Powder Activated Carbon) blower.

Fluctuations in activated carbon expenses, account 506151, are the result of on-going operation of the Ghent Units and BR3. The variances are driven by the purchase and delivery timing of the raw consumable material as well as variations in generation and coal quality. Increases in April and July 2015, were the result of increased compliance costs at GH4. Beginning in July 2015, two different types of activated carbon were purchased for system/unit testing and product evaluation. From September through December 2015, the product was used on units GH1 and GH4. Product usage commenced on GH2 in 2016, after the baghouse was placed in-service. GH4 was offline in April 2016. The increase in July and August 2016 was the result of the initial fill of the silo for BR3. The decrease in October 2016 was due to GH4 being on a planned maintenance outage. Additionally, GH3 was on a planned maintenance outage in November 2016.

The E.W. Brown landfill was placed in service on September 30, 2016. Landfill operations, account 502013, reflects routine monthly landfill operations. Fluctuations between October 2016 and February 2017 represent start-up costs associated with operations.

Landfill maintenance, account 512107, reflects routine monthly landfill operations at E.W. Brown beginning in October 2016. Fluctuations between October 2016 and February 2017 represent start-up costs associated with maintenance.

2016 Plan

There have been no expenses recorded in this plan.

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

KENTUCKY UTILITIES COMPANY

Response to the Commission Staff's First Request for Information

Dated July 27, 2017

Case No. 2017-00266

Question No. 5

Witness: Derek A. Rahn

- Q-5. KRS 278.183(3) provides that during the two-year review, the Commission shall, to the extent appropriate, incorporate surcharge amounts found just and reasonable into the existing base rates of the utility.
- a. Provide the surcharge amount that KU believes should be incorporated into its existing base rates. Include all supporting calculations, work papers, and assumptions.
 - b. The surcharge factor reflects a percentage of revenue approach, rather than a per-kWh approach. Taking this into consideration, explain how the surcharge amount should be incorporated into KU's base rates. Include any analysis that KU believes supports its position.
 - c. Does KU believe that modifications will need to be made to either the surcharge mechanism or the monthly surcharge reports as a result of incorporating additional environmental surcharge amounts into KU's existing base rates? If so, provide a detailed explanation of the modifications and provide updated monthly surcharge reports.
- A-5. a. See the attachment provided in Excel format. KU is proposing to roll-in \$33,091,208 of incremental environmental surcharge revenues into base rates resulting in total environmental surcharge revenues in base rates of \$144,279,620.
- b. The Commission previously approved KU's proposed roll-in methodology in Case Nos. 2011-00231, 2013-00242, and most recently in 2015-00221. KU uses a two-step roll-in methodology as shown below:
 - Step #1 – Customer Group Allocation: Allocate the roll-in between Group 1 and Group 2 customers based on the percentage of each group's total base revenue to KU's total base revenue (excluding base environmental surcharge revenue).
 - Step #2 - Group Rate Class Allocation:
 - Group 1 amount from Step 1 is allocated to the Group 1 rate classes based on total base revenues excluding base environmental surcharge revenues.
 - Group 2 amount from Step 1 is allocated to Group 2 rate classes based on non-fuel base revenues excluding base environmental surcharge revenues.

Furthermore, for Group 1 and Group 2, the amount of the roll-in will be spread to the energy portion of rates (without a demand charge) and to the demand portion of rates (with a separately metered and billed demand component). Lastly, lighting rates will continue to be billed on a per-light basis.

KU recommends that this method continue to be used to accomplish this roll-in to base rates.

- c. No. The incorporation of additional environmental surcharge revenues into existing base rates does not require modifications to the surcharge mechanism or monthly ES Forms.

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

KENTUCKY UTILITIES COMPANY

**Response to the Commission Staff's First Request for Information
Dated July 27, 2017**

Case No. 2017-00266

Question No. 6

Witness: Derek A. Rahn

- Q-6. Provide the actual average residential customer's usage. Based on this usage amount, provide the dollar impact the over/under recovery will have on the average residential customer's bill for the requested recovery period. Provide all supporting calculations.
- A-6. See the attachment provided in Excel format.

The actual average residential customer's usage for the 12-months ending June 30, 2017 is 1,122 kWh per month. Actual average monthly usage for residential customers will vary from month to month depending upon the time period of the year.

Based upon collecting the cumulative under-recovered position of \$723,722 in one month, the ECR billing factor will be increased by approximately 0.59% for that month. For a residential customer using 1,122 kWh per month the impact of the adjusted ECR billing factor would be an increase of approximately \$0.67 on that month's bill, using rates effective July 1, 2017 and adjustment clause factors in effect for the June 2017 billing month.

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

KENTUCKY UTILITIES COMPANY

**Response to the Commission Staff's First Request for Information
Dated July 27, 2017**

Case No. 2017-00266

Question No. 7

Witness: Heather D. Metts / Christopher M. Garrett

Q-7. In Case No. 2000-00439,⁶ the Commission ordered that KU's cost of debt and preferred stock would be reviewed and re-established during six-month surcharge review cases. Provide the following information as of February 28, 2017:

- a. The outstanding balances for long-term debt, short-term debt, preferred stock, and common equity. Provide this information on total company and Kentucky jurisdictional bases.
- b. The blended interest rates for long-term debt, short-term debt, and preferred stock. Include all supporting calculations showing how these blended interest rates were determined. If applicable, provide the blended interest rates on total company and Kentucky jurisdictional bases. For each outstanding debt listed, indicate whether the interest rate is fixed or variable.
- c. KU's calculation of its weighted average cost of capital for environmental surcharge purposes.

A-7.

- a. There was no preferred stock outstanding as of February 28, 2017; therefore, it is not listed in the attached schedules.
- b. For re-establishing the rate of return to be used in future monthly filings, KU utilized a return on equity of 9.70% as approved by the Commission in its June 23, 2017 Order in Case No. 2016-00437. See the attachment provided in Excel format for the period ended February 28, 2017 under review, utilizing a return on equity of 9.70%.
- c. KU recommends the continued use of an effective tax rate of 38.6660% in the gross-up revenue factor used in the rate of return calculation for the period ended February 28, 2017. KU expects to have taxable income in 2017 that will be offset by a net operating loss carry forward and will be unable to take the Internal Revenue Code §199 manufacturing tax deduction.

⁶ Case No. 2000-00439, Kentucky Utilities Company (Ky. PSC Apr. 18, 2001).

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