

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC EXAMINATION BY THE PUBLIC)
SERVICE COMMISSION OF THE ENVIRONMENTAL)
SURCHARGE MECHANISM OF KENTUCKY) **CASE NO.**
UTILITIES COMPANY FOR THE SIX-MONTH) **2018-00051**
BILLING PERIOD ENDING OCTOBER 31, 2017)

DIRECT TESTIMONY OF

DEREK A. RAHN
MANAGER, REVENUE REQUIREMENT COS
LG&E AND KU SERVICES COMPANY

Filed: March 14, 2018

1 **Q. Please state your name, title, and business address.**

2 A. My name is Derek A. Rahn. I am the Manager, Revenue Requirement COS for
3 Kentucky Utilities Company (“KU” or “Company”) and Louisville Gas and Electric
4 Company (“LG&E”) and an employee of LG&E and KU Services Company, which
5 provides services to LG&E and KU (collectively “Companies”). My business address
6 is 220 West Main Street, Louisville, Kentucky, 40202. A complete statement of my
7 education and work experience is attached to this testimony as Appendix A.

8 **Q. Have you previously testified before this Commission?**

9 A. Yes. I have previously testified before this Commission in proceedings concerning the
10 Companies’ fuel adjustment clauses, environmental cost recovery (“ECR”) surcharge
11 mechanisms, and the 2016 ECR compliance plan proceeding (Case No. 2016-00026
12 (KU) and Case No. 2016-00027 (LG&E)).

13 **Q. Are you sponsoring any exhibits?**

14 A. Yes. As Mr. Christopher M. Garrett describes in his testimony, the deferred tax
15 expense reduction associated with the amortization of excess ADIT should be grossed-
16 up and included as a reduction to the operating expense component of the ECR
17 mechanism. Provided in Exhibit DAR-1, ES Form changes are proposed to be
18 implemented effective with approval in this case.

19 **Q. What is the purpose of this proceeding?**

20 A. The purpose of this proceeding is to review the past operation of KU’s environmental
21 surcharge during the six-month billing period ending October 31, 2017 and determine
22 whether the surcharge amounts collected during the period are just and reasonable.

23 **Q. What is the purpose of your testimony?**

1 A. The purpose of my testimony is to summarize the operation of KU's environmental
2 surcharge during the billing period under review, demonstrate that the amount collected
3 during the period was just and reasonable, present and discuss KU's proposed
4 adjustment to the Environmental Surcharge Revenue Requirement based on the
5 operation of the surcharge during the period, and explain how the environmental
6 surcharge factors were calculated during the period under review.

7 **Q. Please summarize the operation of the environmental surcharge for the billing**
8 **period included in this review.**

9 A. KU billed an environmental surcharge to its customers from May 1, 2017 through
10 October 31, 2017. For purposes of the Commission's examination in this case, the
11 monthly KU environmental surcharges are considered as of the six-month billing
12 period ending October 31, 2017. In each month of the six-month period under review
13 in this proceeding, KU calculated the environmental surcharge factors in accordance
14 with its ECR Tariff and the requirements of the Commission's previous orders
15 concerning KU's environmental surcharge. The calculations were made in accordance
16 with the Commission-approved monthly forms and filed with the Commission ten days
17 before the new monthly charge was billed by the Company.

18 **Q. What costs were included in the calculation of the environmental surcharge**
19 **factors for the billing period under review?**

20 A. The capital and operating costs included in the calculation of the environmental
21 surcharge factors for the six-month billing period under review were the costs incurred
22 each month by KU from March 2017 through August 2017, as detailed in the

1 attachment in response to Question No. 2 of the Commission Staff's Request for
2 Information, incorporating all required revisions.

3 The monthly environmental surcharge factors applied during the billing period
4 under review were calculated consistent with the Commission's Orders in KU's
5 previous applications to assess or amend its environmental surcharge mechanism and
6 plan, as well as, Orders issued in previous review cases. The monthly environmental
7 surcharge reports filed with the Commission during this time reflect the various
8 changes to the reporting forms ordered by the Commission from time to time.

9 **Q. Please describe the most recently approved changes to KU's ECR Compliance
10 Plan.**

11 A. In Case No. 2016-00026, the Commission approved KU's 2016 ECR Compliance Plan
12 that included seven new projects and associated operation and maintenance costs.
13 Pursuant to the Commission's August 8, 2016 Order approving the Settlement
14 Agreement in Case No. 2016-00026, KU began including the approved projects in the
15 monthly filing for the August 2016 expense month that was billed in October 2016.

16 **Q. Please describe the most recently approved changes to the environmental
17 surcharge mechanism and the monthly ES forms.**

18 A. In Case No. 2017-000266, KU's most recent ECR two-year review, the Commission
19 approved the Company's request to roll in approximately \$33 million of incremental
20 environmental surcharge amounts into base rates. As a result of the Commission's
21 decision in Case No. 2016-00437¹, which lowered the ROE of all ECR plans to 9.70%,

¹ In the Matter of: Electronic Examination by the Public Service Commission of the Environmental Surcharge Mechanism of Kentucky Utilities Company for the Six-Month Billing Period Ending October 31, 2106, Order dated June 23, 2017.

1 the Company requested and the Commission approved form changes to ES Forms 1.10,
2 2.00, and 2.40 to combined the separate columns for Pre-2016 Plans and 2016 Plans.

3 **Q. Is KU proposing any changes to its Environmental Cost Recovery Surcharge**
4 **tariff?**

5 A. No. There are no needed changes to the Environmental Cost Recovery Surcharge tariff.

6 **Q. Are there any changes or adjustments in Rate Base from the originally filed**
7 **expense months?**

8 A. No. During the period under review, there were no changes to Rate Base from the
9 originally filed billing months as summarized in KU's response to the Commission
10 Staff's Request for Information, Question No. 1. In addition, there were no changes
11 identified as a result of preparing responses to the requests for information in this
12 review.

13 **Q. Are there any changes necessary to the jurisdictional revenue requirement**
14 **(E(m))?**

15 A. Yes. Adjustments to E(m) are necessary for compliance with the Commission's Order
16 in Case No. 2000-00439 to reflect the actual changes in the overall rate of return on
17 capitalization that is used in the determination of the return on environmental rate base.

18 Pursuant to the terms of the Settlement Agreement approving the 2011 ECR
19 Plan, KU calculated the short- and long-term debt rate using average daily balances
20 and daily interest rates in the calculation of the overall rate of return true-up adjustment
21 for the three-month period March 1, 2017 through May 31, 2017 and for the six-month
22 expense period ending August 31, 2017.

1 For the expense months of March 2017 through May 2017, the weighted
2 average cost of capital was calculated separately for Pre-2016 Plan projects and for
3 2016 Plan projects. For the Pre-2016 Plans projects, the weighted average cost of
4 capital was based on the balances as of May 31, 2017 and the 10.00% return on equity.
5 For 2016 Plan projects, the weighted average cost of capital was based on the balances
6 as of May 31, 2017 and the 9.80% return on equity. For the expense months of June
7 2017 through August 2017, the weighted average cost of capital was based on the
8 balances as of August 31, 2017 and the 9.70% return on equity for all Plan projects.

9 The details of and support for these calculations are shown in KU's response to
10 Question No. 1 of the Commission Staff's Request for Information.

11 **Q. Are there corrections to information provided in the monthly filings during the**
12 **billing period under review?**

13 A. No. There are no corrections to information provided in the monthly filings during the
14 six-month billing period under review.

15 **Q. As a result of the operation of the environmental surcharge during the billing**
16 **period under review, is an adjustment to the revenue requirement necessary?**

17 A. Yes. KU experienced an over-recovery of \$346,028 for the billing period ending
18 October 31, 2017. KU's response to Question No. 2 of the Commission Staff's Request
19 for Information shows the calculation of the over-recovery. An adjustment to the
20 revenue requirement is necessary to reconcile the collection of past surcharge revenues
21 with actual costs for the billing period under review.

22 **Q. Has KU identified the causes of the over-recovery during the billing period under**
23 **review?**

1 A. Yes. KU has identified the components that make up the over-recovery during the
 2 billing period under review. The components are: (1) changes in overall rate of return
 3 as previously discussed, and (2) the use of 12-month average revenues to determine the
 4 billing factor. The details and support of the components that make up the over-
 5 recovery during the billing period under review are shown in KU's response to
 6 Question No. 2 of the Commission Staff's Request for Information.

7 **Q. Please explain how the function of the ECR mechanism contributes to the**
 8 **recovery position in the billing period under review.**

9 A. The use of 12-month average revenues to calculate the monthly billing factors and then
 10 applying those same billing factors to the actual monthly revenues will result in an
 11 over- or under-collection of ECR revenues. The table below shows a comparison of
 12 the 12-month average revenues used in the monthly filings to determine the ECR billing
 13 factors and the actual revenues to which the ECR billing factors were applied in the
 14 billing month.

Expense Month	12-Month Average Revenues	Billing Month	Actual Revenues Subject to ECR Billing Factors
March 2017	\$98,538,821	May 2017	\$85,253,523
April 2017	\$98,345,299	June 2017	\$100,172,914
May 2017	\$98,711,359	July 2017	\$106,868,756
June 2017	\$99,056,341	August 2017	\$112,073,278
July 2017	\$99,045,113	September 2017	\$97,907,151
August 2017	\$98,920,426	October 2017	\$92,599,412
*The 12-month average revenues and the Actual Revenues subject to ECR Billing Factors reflect net revenues for Groups 1 and 2.			

15
 16 Generally, an under-recovery will occur when actual revenues for the billing
 17 month are less than the 12-month average revenues used for the expense month.

1 Likewise, an over-recovery will usually occur when actual revenues for the billing
2 month are greater than the 12-month average revenues used for the expense month.

3 **Q. What kind of adjustment is KU proposing in this case as a result of the operation**
4 **of the environmental surcharge during the billing period?**

5 A. KU is proposing that the over-recovery be distributed in one month following the
6 Commission's Order in this proceeding. Specifically, KU recommends the
7 Commission approve a decrease to the Environmental Surcharge Revenue
8 Requirement of \$346,028 for one month, to occur in the second full billing month
9 following the Commission's Order in this proceeding. This method is consistent with
10 the method of implementing previous over- or under- recovery positions in prior ECR
11 review cases.

12 **Q. What is the bill impact on a residential customer for the proposed distribution of**
13 **the over-recovery?**

14 A. The inclusion of the distribution reflecting the over-recovery position in the
15 determination of the ECR billing factor will decrease the billing factor by
16 approximately 0.28% for one month. For a residential customer using an average of
17 1,048 kWh per month, the impact of the adjusted ECR billing factor would be a
18 decrease of approximately \$0.29 for one month.

19 **Q. What rate of return is KU proposing to use for its ECR Plans upon the**
20 **Commission's Order in this proceeding?**

21 A. KU is recommending an overall rate of return on capital of 8.90%, including the
22 currently approved 9.70% return on equity and adjusted capitalization, to be used to
23 calculate the environmental surcharge. This is based on capitalization as of August 31,

1 2017, the Commission's Order of January 24, 2018 in Case No. 2017-00266 and use
2 of the rate of return as adjusted for the new corporate tax rate implemented in the Tax
3 Cuts and Jobs Act.

4 See the response and attachments to Commission Staff's Request for
5 Information Question No. 5 following this testimony.

6 **Q. What is your recommendation to the Commission in this case?**

7 A. KU makes the following recommendations to the Commission in this case:

8 a) The Commission should approve the proposed decrease to the Environmental
9 Surcharge Revenue Requirement of \$346,028 for one month to occur in the
10 second full billing month following the Commission's Order in this proceeding;

11 b) The Commission should determine the environmental surcharge amount for the
12 six-month billing period ending October 31, 2017 to be just and reasonable;

13 c) The Commission should approve the use of an overall rate of return on capital
14 of 8.90% for all projects, using a return on equity of 9.70%, beginning in the
15 second full billing month following the Commission's Order in this proceeding,
16 and;

17 d) The Commission should approve the proposed ES Forms as reflected in Exhibit
18 DAR-1.

19 **Q. Does this conclude your testimony?**

20 A. Yes.

APPENDIX A

Derek A. Rahn

Manager, Revenue Requirement/COS
LG&E and KU Services Company
220 West Main Street
Louisville, Kentucky 40202
(502) 627-4127

Previous Positions

Manager, Transmission Policy & Tariffs	Sept. 2010 – Oct. 2015
Group Leader, Transmission Operations Engineering	Dec. 2008 – Sept. 2010
Supervisor, Operations (Ghent Power Station)	Dec. 2007 – Dec. 2008
Electrical Engineer II (Ghent Power Station)	Jul. 2005 – Dec. 2007
Project Engineer (TubeMaster, Inc)	Dec 2003 – Jul. 2005

Education

Masters of Business Administration,
Bellarmine University, July 2010.
Bachelor of Science in Electrical Engineering,
University of Kentucky, December 2003.

Training:

Managing People & Processes (2014), IUS Leadership Program (2007-2008),
Professional Development Program (2007-2008), Global Leadership Summit
(2013, 2015, & 2017), Mentoring Program (2008, 2014 - 2017), Advanced
Operator (2008), Project Management (2006), and Basic Shaft Alignment (2006).

Civic Activities

Power of One Committee Member (2007 – 2018)
Saratoga Springs Neighborhood Association Board (2017- 2018)

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

Revenue Requirements of Environmental Compliance Costs
For the Expense Month of

Determination of Environmental Compliance Rate Base

	Environmental Compliance Plan	
Eligible Pollution Control Plant		
Eligible Pollution CWIP Excluding AFUDC		
Subtotal		
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33 and 2.34		
Less: Allowance Inventory Baseline		
Net Emission Allowance Inventory		
Cash Working Capital Allowance		
Net Unamortized Closure Cost Balance - Active Stations ¹		
Net Unamortized Closure Cost Balance - Retired Stations ¹		
Subtotal		
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant		
Pollution Control Deferred Income Taxes		
Pollution Control Deferred Investment Tax Credit		
Subtotal		
Environmental Compliance Rate Base		

Determination of Pollution Control Operating Expenses

	Environmental Compliance Plan	
Monthly Operations & Maintenance Expense		
Monthly Depreciation & Amortization Expense		
Monthly Taxes Other Than Income Taxes - Eligible Plant		
Monthly Taxes Other Than Income Taxes - Closure Costs		
Amortization of Monthly Closure Costs - Active Stations		
Amortization of Monthly Closure Costs - Retired Stations		
Amortization of Excess ADIT with gross-up	\$ (22,997)	1.35
Monthly Emission Allowance Expense from ES Form 2.31, 2.32, 2.33 and 2.34		
Add KU Current Month TC2 Emission Allowance Expense reported on ES Form 2.31, 2.32, 2.33 and 2.34		
Less Monthly Emission Allowance Expense in base rates		
Net Recoverable Emission Allowance Expense		
Monthly Surcharge Consultant Fee		
Construction Monitoring Consultant Fee		
Total Pollution Control Operations Expense		

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	
Net Beneficial Reuse Operations Expense	

Proceeds From By-Product and Allowance Sales

	Total Proceeds	Amount in Base Rates	Net Proceeds
	(1)	(2)	(1) - (2)
Allowance Sales			
Scrubber By-Products Sales			
Total Proceeds from Sales			

Note 1: The net unamortized closure cost balance is comprised of CCR closure cost expenditures less accumulated amortization, accumulated deferred income taxes and amount in base rates.

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Amortization of Monthly CCR Closure Costs

For the Month Ended:

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Description	Accumulated CCR Closure Costs	Accumulated Amortization (Prior Month)	Current Month Amortization	Accumulated Amortization (Current Month)	Accumulated Deferred Income Taxes (ADIT)	Unamortized CCR Closure Cost Balance (Net of ADIT)
			[(2)-(3)]/ RemainingAmortMonths	(3)+(4)		(2)-(5)-(6)
2016 Plan:						
Project 39 - Green River Station			\$ -	\$ -		\$ -
Project 39 - Pineville Station			\$ -	\$ -		\$ -
Project 39 - Tyrone Station			\$ -	\$ -		\$ -
Project 40 - Ghent Station			\$ -	\$ -		\$ -
Project 41 - Trimble County Station			\$ -	\$ -		\$ -
Project 42 - Brown Station			\$ -	\$ -		\$ -
Net Total - All Projects:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note 1: The Accumulated Deferred Income Taxes (ADIT) includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.