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 LOUISVILLE GAS	**)**	**CASE NO.**
AND ELECTRIC COMPANY FOR THE SIX-MONTH	**)**	**2018-00052**
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

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/COS for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that 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 14th day of March 2018.

Judy Schooler (SEAL)
Notary Public

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

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

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

Q. Have you previously testified before this Commission?

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

Q. Are you sponsoring any exhibits?

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

Q. What is the purpose of this proceeding?

A. The purpose of this proceeding is to review the past operation of LG&E's environmental surcharge during the six-month billing period ending October 31, 2017 and determine whether the surcharge amounts collected during the period are just and reasonable.

Q. What is the purpose of your testimony?

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

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

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

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

A. The capital and operating costs included in the calculation of the environmental surcharge factors for the six-month billing period under review were the costs incurred each month by LG&E from March 2017 through August 2017, as detailed in the attachment in response to Question No. 2 of the Commission Staff's First Request for Information, incorporating all required revisions.

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

Q. Please describe the most recently approved changes to LG&E's ECR Compliance Plan.

A. In Case No. 2016-00027, the Commission approved LG&E's 2016 ECR Compliance Plan that included seven new projects and associated operation and maintenance costs. Pursuant to the Commission's August 8, 2016 Order approving the Settlement Agreement in Case No. 2016-00027, LG&E began including the approved projects in the monthly filing for the August 2016 expense month that was billed in October 2016.

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

A. In Case No. 2017-000267, LG&E's most recent ECR two-year review, the Commission approved the Company's request to roll in approximately $52.9 million of incremental environmental surcharge amounts into base rates. As a result of the Commission's decision in Case No. 2016-00438[1], 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 Louisville Gas and Electric Company for the Six-Month Billing Period Ending October 31, 2106, Order dated June 23, 2017.

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

Q. Is LG&E proposing any changes to its Environmental Cost Recovery Surcharge tariff?

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

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

A. Yes. During the period under review, ES Forms 1.10 and 2.00 contained rate base and operating expense values for the 2016 Plan that needed to be corrected for the expense month of April 2017. ES Forms 1.10 and 2.00 also contained rate base values that needed to be corrected for the 2016 Plan for the expense months of July and August 2017. These changes were identified in the May and September 2017 expense month filings with the KPSC and are further represented in detail in the Company's response to Question 1 of Commission Staff's First Request for Information.

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

A. Yes. Adjustments to E(m) are necessary for compliance with the Commission’s Order in Case No. 2000-00386, to reflect the actual changes in the overall rate of return on capitalization that is used in the determination of the return on environmental rate base.

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

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

The details of and support for these calculations are shown in LG&E's response to Question No. 1 of the Commission Staff's First Request for Information.

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

A. Yes. As previously mentioned, ES Forms 1.10 and 2.00 for the April, July, and August expense months contained incorrect data. There was no impact to Group 1 billing factors, however Group 2 billing factors were impacted by 0.01% in April and August 2017 expense months. Revised forms for April, July, and August 2017 were provided during the review period.

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

A. Yes. LG&E experienced an over-recovery of $2,951,748 for the billing period ending October 31, 2017. LG&E's response to Question No. 2 of the Commission Staff's First

Request for Information shows the calculation of the over-recovery. An adjustment to the revenue requirement is necessary to reconcile the collection of past surcharge revenues with actual costs for the billing period under review.

Q. Has LG&E identified the causes of the over-recovery during the billing period under review?

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

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

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

Expense Month	12-Month Average Revenues	Billing Month	Actual Revenues Subject to ECR Billing Factors
March 2017	$69,466,496	May 2017	$61,323,877
April 2017	$69,471,160	June 2017	$79,240,642
May 2017	$69,620,901	July 2017	$87,048,945
June 2017	$70,043,071	August 2017	$88,234,285
July 2017	$70,086,220	September 2017	$77,153,717
August 2017	$69,955,951	October 2017	$70,277,723
*The 12-month average revenues and the Actual Revenues subject to ECR Billing Factors reflect net revenues for Groups 1 and 2.			

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

Q. What kind of adjustment is LG&E proposing in this case as a result of the operation of the environmental surcharge during the billing period?

A. LG&E is proposing that the over-recovery be distributed over four months following the Commission's Order in this proceeding. Specifically, LG&E recommends that the Commission approve a decrease to the Environmental Surcharge Revenue Requirement of $737,937 per month for four months beginning in the second full billing month following the Commission's Order in this proceeding. This method is consistent with the method of implementing previous over- or under-recovery positions in prior ECR review cases.

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

A. The inclusion of the distribution reflecting the over-recovery position in the determination of the ECR billing factor will decrease the billing factor by approximately 0.87% per month for four months. For a residential customer using an average of 928 kWh per month, the impact of the adjusted ECR billing factor would be a decrease of approximately $0.84 per month for four months (using rates and adjustment clause factors in effect for the December 2017 billing month).

Q. What rate of return is LG&E proposing to use for all ECR Plans upon the Commission's Order in this proceeding?

A. LG&E is recommending an overall rate of return on capital of 8.71%, including the currently approved 9.7% return on equity and adjusted capitalization, to be used to calculate the environmental surcharge. This is based on capitalization as of August 31, 2017, the Commission's Order of January 24, 2018 in Case No. 2017-00267 and use of the new corporate tax rate implemented in the Tax Cuts and Jobs Act.

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

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

A. LG&E makes the following recommendations to the Commission in this case:

a) The Commission should approve the proposed decrease to the Environmental Surcharge Revenue Requirement of $737,937 per month for four months beginning in the second full billing month following the Commission's Order in this proceeding;

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

c) The Commission should approve the use of an overall rate of return on capital of 8.71% for all projects, using a return on equity of 9.70%, beginning in the second full billing month following the Commission's Order in this proceeding, and;

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

Q. Does this conclude your testimony?

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)

ES FORM 2.00

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Revenue Requirements of Environmental Compliance Costs
#REF!

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		
Cash Working Capital Allowance		
Net Unamortized Closure Cost Balance[1]		
Subtotal		
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant		
Pollution Control Deferred Income Taxes		
Subtotal		
Environmental Compliance Rate Base		

Determination of Pollution Control Operating Expenses

Monthly Operations & Maintenance Expense			
Monthly Depreciation & Amortization Expense			
less investment tax credit amortization			
Monthly Taxes Other Than Income Taxes - Eligible Plant			
Monthly Taxes Other Than Income Taxes - Closure Costs			
Amortization of Monthly Closure Costs			
Amortization of Excess ADIT with gross-up	($4,157)	1.35	(5,598)
Monthly Emission Allowance Expense from ES Form 2.31, 2.32, 2.33, and 2.34			
Monthly Surcharge Consulting Fees			
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.

ES FORM 2.01

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Amortization of Monthly CCR Closure Costs

#REF!

(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 29 - Mill Creek Station			$ -	$ -		$ -
Project 30 - Trimble County 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.