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	**) 2018-00258**
BILLING PERIOD ENDING APRIL 30, 2018	**)**

DIRECT TESTIMONY OF

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

Filed: September 5, 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 5th day of September 2018.

Judy Schooler (SEAL)
Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

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. Provided in Exhibit DAR-1 are revisions to the September 2017 through February 2018 Monthly ES Forms. These revisions reflect:

(1) the reduction in the Kentucky state corporate income tax rate from 6 percent to 5 percent effective retroactive to January 1, 2018[1];

(2) the Internal Revenue Service "IRS" filing Docket No. 2018-16716 filed August 3, 2018, retroactive to September 27, 2017, the month under which this review period starts.

These revisions are used in the calculation of the true-up in this case.

(a) [1] The Kentucky corporate income tax rate was reduced from 6% to 5%, as enacted by House Bill 487, effective January 1, 2018. House Bill 487 became law on April 27, 2018.

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 April 30, 2018 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.

I will also explain the updates required to the expense months of September 2017 through February 2018 to reflect the reduction in the Kentucky state corporate income tax rate and "IRS" filing Docket No. 2018-16716.

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 November 1, 2017 through April 30, 2018. 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 April 30, 2018. 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 September 2017 through February 2018, 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. 2018-00052, LG&E's most recent ECR six-month review, the Commission approved the Company's request to change its Monthly ES Forms 2.00 and 2.01. Form 2.00 now shows the amortization of grossed-up Excess ADIT resulting from the recent reduction in federal and state corporate taxes.

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, there several changes to Rate Base from the originally filed billing months resulting from the issues discussed in my testimony, reflected in DAR-1, and summarized in KU's response to the Commission Staff's Request for Information, Question No. 1.

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 four-month period September 1, 2017 through December 31, 2017 and for the six-month expense period ending February 28, 2018.

For the expense months of September 2017 through February 2018, the weighted average cost of capital was based on the balances as of February 28, 2018 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. ES Forms 1.00, 1.10, 2.00, 2.01, and 2.10 for the expense months of January 2018 through February 2018 have been updated to reflect the reduction in the Kentucky state corporate income tax rate and the IRS filing Docket No. 2018-16716.

Q. Please summarize the changes resulting from the reduction in the Kentucky state corporate income tax rate on the ECR mechanism?

A. There are three changes required to incorporate the effects of the reduction in the Kentucky state corporate income tax rate.

First, the gross-up rate used in the rate of return calculation was modified to reflect the lower Kentucky state corporate income tax rate of 5% effective January 1, 2018. This change was implemented with the April 2018 expense month, therefore, January and February 2018 expense months are being corrected as part of this filing.

Second, accumulated deferred income tax ("ADIT") balances included as a reduction to ECR rate base were updated to reflect the change in law. This change was also implemented effective with the April 2018 expense month with modifications for the January and February 2018 expense months reflected as part of this filing.

Third, state excess deferred tax amortization has been reflected, on ES Form 2.00 and 2.01, for the January and February 2018 expense months in Exhibit DAR-1.

Q. Please summarize the changes resulting from the IRS filing on the ECR mechanism.

A. The Treasury Department and the Internal Revenue Service issued on August 3, 2018, Docket No. 2018-16716, proposed regulations on the new 100-percent depreciation deduction that allows businesses to write off most depreciable business assets in the year they are placed in service. The deduction is retroactive, applying to qualifying property acquired and placed in service after Sept. 27, 2017. This retroactive proposed regulation also has been reflected on ES Forms 2.00 and 2.01 for September 2017 through February 2018 expense months in Exhibit DAR-1.

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 $1,158,649 for the billing period ending April 30, 2018. 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
September 2017	$69,055,726	November 2017	$62,274,732
October 2017	$69,468,077	December 2017	$67,174,978
November 2017	$69,746,346	January 2018	$81,024,939
December 2017	$69,918,902	February 2018	$73,077,732
January 2018	$70,915,570	March 2018	$65,958,101
February 2018	$72,062,896	April 2018	$67,196,619

*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 over two months, $579,324 for one month and $579,325 for the next month 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 0.65% per month for two months. For a residential customer using an average of 981 kWh per month, the impact of the adjusted ECR billing factor would be a decrease of approximately $0.66 per month for two months (using rates and adjustment clause factors in effect for the August 2018 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 8.66%, 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 February 28, 2018, the Commission's Order of July 20, 2018 in Case No. 2018-00052, use of the new corporate tax rate implemented in the Tax Cuts and Jobs Act, and new Kentucky state corporate income tax rate.

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 over two months, $579,324 for the first month and $579,325 for the second month 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 April 30, 2018 to be just and reasonable, and;

c) The Commission should approve the use of an overall rate of return on capital of 8.66% 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.

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, Revenue Requirement	Oct. 2015 – Jan. 2018
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 1.00

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Net Group E(m) and
Group Environmental Surcharge Billing Factors
For the Expense Month of January 2018

GROUP 1 (Total Revenue)

Group 1 E(m) -- ES Form 1.10, line 15	=	**$ 1,149,052**
Group 1 ES Billing Factor -- ES Form 1.10, line 17	=	**3.16%**

GROUP 2 (Net Revenue)

Group 2 E(m) -- ES Form 1.10, line 15	=	**$ 1,569,312**
Group 2 ES Billing Factor -- ES Form 1.10, line 17	=	**4.53%**

Effective Date for Billing: March billing cycle beginning February 28, 2018

Submitted by: ______________________________

Title: Manager, Revenue Requirement COS

Date Submitted: February 16, 2018

ES FORM 1.10

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and Group Surcharge Billing Factors

For the Expense Month of January 2018

Calculation of Total E(m)

E(m) = [(RB / 12) (ROR+(ROR -DR)(TR/(1-TR)))] + OE - BAS + BR, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,057,135,766
(2)	RB / 12		=	$	88,094,647
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		8.83%
(4)	OE		=	$	3,159,687
(5)	BAS		=	$	0
(6)	BR		=	$	66,152
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	11,004,597

Calculation of Adjusted Net Jurisdictional E(m)

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=		79.69%
(9)	Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	8,769,563
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2017-00267	=	$	799,112
(11)	Prior Period Adjustment (if necessary)	=	$	-
(12)	Revenue Collected through Base Rates	=	$	6,850,311
(13)	Adjusted Net Jurisdictional E(m) [(9) + (10) + (11) - (12)]	=	$	2,718,364

Calculation of Group Environmental Surcharge Billing Factors

			GROUP 1 (Total Revenue)	GROUP 2 (Net Revenue)
(14)	Revenue as a Percentage of 12-month Total Revenue ending with the Current Month -- ES Form 3.00	=	42.27%	57.73%
(15)	Group E(m) [(13) x (14)]	=	$ 1,149,052	$ 1,569,312
(16)	Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$ 36,306,059	$ 34,609,511
(17)	Group Environmental Surcharge Billing Factors [(15) ÷ (16)]	=	**3.16%**	**4.53%**

ES FORM 2.00

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Revenue Requirements of Environmental Compliance Costs
For the Expense Month of January 2018

Determination of Environmental Compliance Rate Base

	Environmental Compliance Plan	
Eligible Pollution Control Plant	$ 1,163,141,710	
Eligible Pollution CWIP Excluding AFUDC	202,279,859	
Subtotal		$ 1,365,421,569
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33, and 2.34	144	
Cash Working Capital Allowance	1,188,292	
Net Unamortized Closure Cost Balance[1]	5,766,483	
Subtotal		6,954,919
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant	64,768,267	
Pollution Control Deferred Income Taxes	250,472,455	
Subtotal		315,240,722
Environmental Compliance Rate Base		$ 1,057,135,766

Determination of Pollution Control Operating Expenses

			Environmental Compliance Plan
Monthly Operations & Maintenance Expense			$ 638,095
Monthly Depreciation & Amortization Expense			2,354,961
less investment tax credit amortization			-
Monthly Taxes Other Than Income Taxes - Eligible Plant			139,288
Monthly Taxes Other Than Income Taxes - Closure Costs			-
Amortization of Monthly Closure Costs			33,216
Amortization of Excess ADIT with gross-up	$ (4,407)	1.33245	(5,872)
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			$ 3,159,687

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	$ 66,353
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	(201)
Net Beneficial Reuse Operations Expense	$ 66,152

Proceeds From By-Product and Allowance Sales

	Total Proceeds	Amount in Base Rates	Net Proceeds
	(1)	(2)	(1) - (2)
Allowance Sales	$ 0	$ -	$ 0
Scrubber By-Products Sales	-	-	-
Total Proceeds from Sales	$ 0	$ -	**$ 0**

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

For the Month Ended: January 31, 2018

(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	$ 8,712,905	$ 369,952	$ 29,585	$ 399,537	3,172,193	$ 5,141,175
Project 30 - Trimble County Station	$ 1,076,337	$ 52,497	$ 3,631	$ 56,127	394,902	$ 625,308
Net Total - All Projects:	$ 9,789,242	$ 422,449	$ 33,216	$ 455,664	$ 3,567,095	$ 5,766,483

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

ES FORM 2.10

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Plant, CWIP & Depreciation Expense

For the Month Ended: January 31, 2018

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Description	Eligible Plant In Service	Eligible Accumulated Depreciation	CWIP Amount Excluding AFUDC	Eligible Net Plant In Service	Deferred Tax Balance as of 1/31/2018	Monthly ITC Amortization Credit	Monthly Depreciation Expense	Monthly Property Tax Expense
				(2)-(3)+(4)				
2009 Plan:								
Project 22 - Cane Run CCP Storage (Landfill - Phase I) [CANCELLED]								
Project 23 - Trimble County Ash Treatment Basin (BAP/GSP)	$ 9,599,354	$ 1,368,171	$ -	$ 8,231,183	$ 960,697		$ 10,336	$ 1,030
Project 24 - Trimble County CCP Storage (Landfill - Phase 1)	$ 13,395,528	$ 338,122	$ 87,134,596	$ 100,192,002	$ 2,226,572		$ 28,310	$ 1,675
Project 25 - Beneficial Reuse	$ 7,413,755	$ 611,395	$ -	$ 6,802,360	$ 1,432,128		$ 14,253	$ 852
Subtotal	$ 30,408,637	$ 2,317,688	$ 87,134,596	$ 115,225,546	$ 4,619,397	$ -	$ 52,899	$ 3,557
Less Retirements and Replacement resulting from implementation of 2009 Plan	$ (1,329,419)	$ (372,436)	$ -	$ (956,982)	$ (296,464)		$ (3,135)	$ (120)
Net Total - 2009 Plan:	$ 29,079,218	$ 1,945,252	$ 87,134,596	$ 114,268,563	$ 4,322,932	$ -	$ 49,764	$ 3,438
2011 Plan:								
Project 26 - Mill Creek Station Air Compliance	$ 1,019,573,876	$ 57,148,209	$ 13,207,190	$ 975,632,857	$ 222,715,234		$ 2,054,347	$ 122,127
Project 27 - Trimble County Unit 1 Air Compliance	$ 100,846,405	$ 5,478,830	$ -	$ 95,367,575	$ 20,980,652		$ 230,052	$ 11,950
Subtotal	$ 1,120,420,281	$ 62,627,039	$ 13,207,190	$ 1,071,000,432	$ 243,695,886	$ -	$ 2,284,399	$ 134,076
Less Retirements and Replacement resulting from implementation of 2011 Plan	$ -	$ -	$ -	$ -	$ -		$ -	$ -
Net Total - 2011 Plan:	$ 1,120,420,281	$ 62,627,039	$ 13,207,190	$ 1,071,000,432	$ 243,695,886	$ -	$ 2,284,399	$ 134,076
2016 Plan:								
Project 28 - Supplemental Mercury Control	$ 4,506,424	$ 52,416	$ (39,843)	$ 4,414,165	$ 750,852		$ 6,792	$ 486
Project 29 - Mill Creek New Process Water Systems	$ 8,756,574	$ 133,225	$ 85,390,678	$ 94,014,027	$ 1,636,949		$ 13,141	$ 1,242
Project 30 - Trimble County New Process Water Systems	$ 379,213	$ 10,337	$ 16,587,238	$ 16,956,114	$ 65,835		$ 866	$ 46
Subtotal	$ 13,642,211	$ 195,977	$ 101,938,072	$ 115,384,306	$ 2,453,636	$ -	$ 20,798	$ 1,774
Less Retirements and Replacement resulting from implementation of 2016 Plan	$ -	$ -	$ -	$ -	$ -		$ -	$ -
Net Total - 2016 Plan:	$ 13,642,211	$ 195,977	$ 101,938,072	$ 115,384,306	$ 2,453,636	$ -	$ 20,798	$ 1,774
Net Total - All Plans:	$ 1,163,141,710	$ 64,768,267	$ 202,279,859	$ 1,300,653,301	$ 250,472,455	$ -	$ 2,354,961	$ 139,288

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%.
Note 2: Effective with the September 2012 expense month, Project 22 is cancelled and the previous CWIP balance is included on ES Form 2.50 as an expense for the September 2012 expense month.
Note 3: The Deferred Tax Balance includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.

ES FORM 1.00

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Net Group E(m) and
Group Environmental Surcharge Billing Factors
For the Expense Month of February 2018

GROUP 1 (Total Revenue)

Group 1 E(m) -- ES Form 1.10, line 15	=	**$ 656,495**
Group 1 ES Billing Factor -- ES Form 1.10, line 17	=	**1.78%**

GROUP 2 (Net Revenue)

Group 2 E(m) -- ES Form 1.10, line 15	=	**$ 891,843**
Group 2 ES Billing Factor -- ES Form 1.10, line 17	=	**2.54%**

Effective Date for Billing: April billing cycle beginning March 29, 2018

Submitted by: ______________________________

Title: Manager, Revenue Requirement COS

Date Submitted: March 19, 2018

ES FORM 1.10

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Calculation of Total E(m) and Group Surcharge Billing Factors

For the Expense Month of February 2018

Calculation of Total E(m)

$E(m) = [(RB / 12) (ROR+(ROR - DR)(TR/(1-TR)))] + OE - BAS + BR$, where

RB	=	Environmental Compliance Rate Base
ROR	=	Rate of Return on the Environmental Compliance Rate Base
DR	=	Debt Rate (both short-term and long-term debt)
TR	=	Composite Federal & State Income Tax Rate
OE	=	Pollution Control Operating Expenses
BAS	=	Total Proceeds from By-Product and Allowance Sales
BR	=	Beneficial Reuse Operating Expenses

					Environmental Compliance Plans
(1)	RB		=	$	1,070,519,743
(2)	RB / 12		=	$	89,209,979
(3)	(ROR + (ROR - DR) (TR / (1 - TR)))		=		8.83%
(4)	OE		=	$	3,145,053
(5)	BAS		=	$	0
(6)	BR		=	$	66,084
(7)	E(m)	(2) x (3) + (4) - (5) + (6)	=	$	11,088,379

Calculation of Adjusted Net Jurisdictional E(m)

(8)	Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=		96.81%
(9)	Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	$	10,734,660
(10)	Adjustment for (Over)/Under-collection pursuant to Case No. 2017-00267	=	$	799,112
(11)	Prior Period Adjustment (if necessary)	=	$	-
(12)	Revenue Collected through Base Rates	=	$	9,985,434
(13)	Adjusted Net Jurisdictional E(m) [(9) + (10) + (11) - (12)]	=	$	1,548,338

Calculation of Group Environmental Surcharge Billing Factors

			GROUP 1 (Total Revenue)		GROUP 2 (Net Revenue)
(14)	Revenue as a Percentage of 12-month Total Revenue ending with the Current Month -- ES Form 3.00	=	42.40%		57.60%
(15)	Group E(m) [(13) x (14)]	=	$ 656,495	$	891,843
(16)	Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	$ 36,919,443	$	35,143,453
(17)	Group Environmental Surcharge Billing Factors [(15) ÷ (16)]	=	**1.78%**		**2.54%**

ES FORM 2.00

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT

Revenue Requirements of Environmental Compliance Costs
For the Expense Month of February 2018

Determination of Environmental Compliance Rate Base

	Environmental Compliance Plan	
Eligible Pollution Control Plant	$ 1,163,141,710	
Eligible Pollution CWIP Excluding AFUDC	218,722,487	
Subtotal		$ 1,381,864,197
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33, and 2.34	144	
Cash Working Capital Allowance	1,186,060	
Net Unamortized Closure Cost Balance[1]	6,195,653	
Subtotal		7,381,857
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant	67,126,983	
Pollution Control Deferred Income Taxes	251,599,328	
Subtotal		318,726,311
Environmental Compliance Rate Base		$ 1,070,519,743

Determination of Pollution Control Operating Expenses

			Environmental Compliance Plan
Monthly Operations & Maintenance Expense			$ 620,702
Monthly Depreciation & Amortization Expense			2,355,580
less investment tax credit amortization			-
Monthly Taxes Other Than Income Taxes - Eligible Plant			139,288
Monthly Taxes Other Than Income Taxes - Closure Costs			-
Amortization of Monthly Closure Costs			35,356
Amortization of Excess ADIT with gross-up	$ (4,407)	1.33245	(5,872)
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			$ 3,145,053

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	$ 66,254
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	(170)
Net Beneficial Reuse Operations Expense	$ 66,084

Proceeds From By-Product and Allowance Sales

	Total Proceeds	Amount in Base Rates	Net Proceeds
	(1)	(2)	(1) - (2)
Allowance Sales	$ 0	$ -	$ 0
Scrubber By-Products Sales	-	-	-
Total Proceeds from Sales	$ 0	$ -	**$ 0**

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

For the Month Ended: February 28, 2018

(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	$ 9,305,113	$ 399,537	$ 31,692	$ 431,229	3,308,134	$ 5,565,749
Project 30 - Trimble County Station	$ 1,085,457	$ 56,127	$ 3,663	$ 59,790	395,764	$ 629,903
Net Total - All Projects:	$ 10,390,570	$ 455,664	$ 35,356	$ 491,020	$ 3,703,898	$ 6,195,653

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

ES FORM 2.10

LOUISVILLE GAS AND ELECTRIC COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Plant, CWIP & Depreciation Expense

For the Month Ended: February 28, 2018

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Description	Eligible Plant In Service	Eligible Accumulated Depreciation	CWIP Amount Excluding AFUDC	Eligible Net Plant In Service	Deferred Tax Balance as of 2/28/2018	Monthly ITC Amortization Credit	Monthly Depreciation Expense	Monthly Property Tax Expense
				(2)-(3)+(4)				
2009 Plan:								
Project 22 - Cane Run CCP Storage (Landfill - Phase I) [CANCELLED]								
Project 23 - Trimble County Ash Treatment Basin (BAP/GSP)	$ 9,599,354	$ 1,378,506	$ -	$ 8,220,848	$ 967,141		$ 10,336	$ 1,030
Project 24 - Trimble County CCP Storage (Landfill - Phase 1)	$ 13,395,528	$ 366,432	$ 88,626,507	$ 101,655,603	$ 2,229,560		$ 28,310	$ 1,675
Project 25 - Beneficial Reuse	$ 7,413,755	$ 625,648	$ -	$ 6,788,107	$ 1,433,725		$ 14,253	$ 852
Subtotal	$ 30,408,637	$ 2,370,587	$ 88,626,507	$ 116,664,557	$ 4,630,427	$ -	$ 52,899	$ 3,557
Less Retirements and Replacement resulting from implementation of 2009 Plan	$ (1,329,419)	$ (372,436)	$ -	$ (956,982)	$ (296,464)		$ (3,135)	$ (120)
Net Total - 2009 Plan:	$ 29,079,218	$ 1,998,150	$ 88,626,507	$ 115,707,575	$ 4,333,962	$ -	$ 49,764	$ 3,438
2011 Plan:								
Project 26 - Mill Creek Station Air Compliance	$ 1,019,573,876	$ 59,202,556	$ 13,417,629	$ 973,788,949	$ 223,737,054		$ 2,054,347	$ 122,127
Project 27 - Trimble County Unit 1 Air Compliance	$ 100,846,405	$ 5,708,882	$ -	$ 95,137,523	$ 21,057,452		$ 230,052	$ 11,950
Subtotal	$ 1,120,420,281	$ 64,911,437	$ 13,417,629	$ 1,068,926,472	$ 244,794,506	$ -	$ 2,284,399	$ 134,076
Less Retirements and Replacement resulting from implementation of 2011 Plan	$ -	$ -	$ -	$ -	$ -		$ -	$ -
Net Total - 2011 Plan:	$ 1,120,420,281	$ 64,911,437	$ 13,417,629	$ 1,068,926,472	$ 244,794,506	$ -	$ 2,284,399	$ 134,076
2016 Plan:								
Project 28 - Supplemental Mercury Control	$ 4,506,424	$ 59,827	$ (42,424)	$ 4,404,173	$ 759,586		$ 7,411	$ 486
Project 29 - Mill Creek New Process Water Systems	$ 8,756,574	$ 146,365	$ 97,968,508	$ 106,578,717	$ 1,645,325		$ 13,141	$ 1,242
Project 30 - Trimble County New Process Water Systems	$ 379,213	$ 11,203	$ 18,752,266	$ 19,120,277	$ 65,949		$ 866	$ 46
Subtotal	$ 13,642,211	$ 217,395	$ 116,678,351	$ 130,103,167	$ 2,470,860	$ -	$ 21,418	$ 1,774
Less Retirements and Replacement resulting from implementation of 2016 Plan	$ -	$ -	$ -	$ -	$ -		$ -	$ -
Net Total - 2016 Plan:	$ 13,642,211	$ 217,395	$ 116,678,351	$ 130,103,167	$ 2,470,860	$ -	$ 21,418	$ 1,774
Net Total - All Plans:	$ 1,163,141,710	$ 67,126,983	$ 218,722,487	$ 1,314,737,214	$ 251,599,328	$ -	$ 2,355,580	$ 139,288

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%.
Note 2: Effective with the September 2012 expense month, Project 22 is cancelled and the previous CWIP balance is included on ES Form 2.50 as an expense for the September 2012 expense month.
Note 3: The Deferred Tax Balance includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.