

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) 2019-00014
BILLING PERIOD ENDING OCTOBER 31, 2018)**

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

Filed: March 6, 2019

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. What is the purpose of this proceeding?**

14 A. The purpose of this proceeding is to review the past operation of KU’s environmental
15 surcharge during the six-month billing period ending October 31, 2018 and determine
16 whether the surcharge amounts collected during the period are just and reasonable.

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

18 A. The purpose of my testimony is to summarize the operation of KU’s environmental
19 surcharge during the billing period under review, demonstrate that the amount collected
20 during the period was just and reasonable, present and discuss KU’s proposed
21 adjustment to the Environmental Surcharge Revenue Requirement based on the
22 operation of the surcharge during the period and explain how the environmental
23 surcharge factors were calculated during the period under review.

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

3 A. KU billed an environmental surcharge to its customers from May 1, 2018 through
4 October 31, 2018. For purposes of the Commission's examination in this case, the
5 monthly KU environmental surcharges are considered as of the six-month billing
6 period ending October 31, 2018. In each month of the six-month period under review
7 in this proceeding, KU calculated the environmental surcharge factors in accordance
8 with its ECR Tariff and the requirements of the Commission's previous orders
9 concerning KU's environmental surcharge. The calculations were made in accordance
10 with the Commission-approved monthly forms and filed with the Commission ten days
11 before the new monthly charge was billed by the Company.

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

14 A. The capital and operating costs included in the calculation of the environmental
15 surcharge factors for the six-month billing period under review were the costs incurred
16 each month by KU from March 2018 through August 2018, as detailed in the
17 attachment in response to Question No. 2 of the Commission Staff's First Request for
18 Information, incorporating all required revisions.

19 The monthly environmental surcharge factors applied during the billing period
20 under review were calculated consistent with the Commission's Orders in KU's
21 previous applications to assess or amend its environmental surcharge mechanism and
22 plan, as well as, Orders issued in previous review cases. The monthly environmental

1 surcharge reports filed with the Commission during this time reflect the various
2 changes to the reporting forms ordered by the Commission from time to time.

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

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

10 In Case Nos. 2017-00483, which amended the 2016 ECR Plan, the Commission
11 approved KU's 2016 ECR Compliance Plan to include the amended Project 36.
12 Pursuant to the Commission's July 9, 2018 Order approving the CPCN and amended
13 2016 ECR Plan, KU began including the approved projects in the monthly filing.

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

16 A. There were three changes required and approved in Case No 2018-00257 to
17 incorporate the effects of the reduction in the Kentucky state corporate income tax rate.

18 First, the gross-up rate used in the rate of return calculation was modified to
19 reflect the lower Kentucky state corporate income tax rate of 5% effective January 1,
20 2018. This change was implemented with the April 2018 expense month, therefore,
21 January and February 2018 expense months are being corrected as part of this filing.

22 Second, accumulated deferred income tax ("ADIT") balances included as a
23 reduction to ECR rate base were updated to reflect the change in law. This change was

1 also implemented effective with the April 2018 expense 1 month with modifications
2 for the January and February 2018 expense months reflected as part of this filing.

3 Third, state excess deferred tax amortization had been updated and reflected,
4 on ES Form 2.00 and 2.01.

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

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

8 **Q. Is KU proposing any changes to the environmental surcharge mechanism and the**
9 **monthly ES forms?**

10 A. Yes, the Company is proposing to eliminate the section on ES Form 2.00 for Proceeds
11 From By-Product and Allowance Sales. Any beneficial reuse from by-products is
12 reported, in more detail, on ES Forms 2.60 and 2.61. Also, the allowance sales is
13 reported, in more detail on ES Forms 2.31, 2.32, and 2.33.

14 With the reporting and use of the data on ES Form 2.60, 2.61, 2.31, 2.32, and
15 2.33, there is no need for the section on ES Form 2.00 for Proceeds From By-Product
16 and Allowance Sales.

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

19 A. Yes. During the period under review, there were several changes to Rate Base from
20 the originally filed expense months March through June 2018. It had come to my
21 attention and noted in the Monthly Environmental Surcharge Report filed August 20,
22 2018, that the balances on the retirement line for Eligible Accumulated Depreciation
23 and Deferred Tax Balance on ES Form 2.10 were incorrect for the expense months of

1 March through June 2018 and is being corrected in this case. The impact on the revenue
2 requirement was an average of \$215 per month. Reflected in Exhibit DAR-1, and
3 summarized in KU's attachment to the response to Question 1 column 9 Jurisdictional
4 True-up.

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

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

10 Pursuant to the terms of the Settlement Agreement approving the 2011 ECR
11 Plan, LG&E calculated the short- and long-term debt rate using average daily balances
12 and daily interest rates in the calculation of the overall rate of return true-up adjustment
13 for the six-month expense period ending August 31, 2018. For the expense months of
14 March 2018 through August 2018, the weighted average cost of capital was based on
15 the balances as of August 31, 2018 and the 9.70% return on equity for all Plan projects.
16 The details of and support for these calculations are shown in KU's response to
17 Question No. 1 of the Commission Staff's First Request for Information.

18 **Q. Are there any other corrections to information provided in the monthly filings**
19 **during the billing period under review?**

20 A. No.

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

1 A. Yes. KU experienced an over-recovery of \$54,918 for the billing period ending
2 October 31, 2018. KU's response to Question No. 2 of the Commission Staff's First
3 Request for Information shows the calculation of the over-recovery. An adjustment to
4 the revenue requirement is necessary to reconcile the collection of past surcharge
5 revenues with actual costs for the billing period under review.

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

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

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

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

Expense Month	12-Month Average Revenues	Billing Month	Actual Revenues Subject to ECR Billing Factors
March 2018	\$103,093,959	May 2018	\$93,114,327
April 2018	\$104,411,839	June 2018	\$103,099,927
May 2018	\$105,066,907	July 2018	\$111,529,535
June 2018	\$105,310,824	August 2018	\$109,628,959
July 2018	\$105,699,222	September 2018	\$102,988,840
August 2018	\$105,495,529	October 2018	\$96,661,343
*The 12-month average revenues and the Actual Revenues subject to ECR Billing Factors reflect net revenues for Groups 1 and 2.			

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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.

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6 **Q.**

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

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8 **A.**

KU is proposing that the over-recovery be distributed over one month following the Commission's Order in this proceeding. Specifically, KU recommends that the Commission approve a decrease to the Environmental Surcharge Revenue Requirement of \$54,918 for one 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.

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14 **Q.**

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

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1 A. The inclusion of the distribution reflecting the over-recovery position in the
2 determination of the ECR billing factor will decrease the billing factor by
3 approximately 0.04% per month for one month. For a residential customer using an
4 average of 1,220 kWh per month, the impact of the adjusted ECR billing factor would
5 be a decrease of approximately \$0.05 for one month (using rates and adjustment clause
6 factors in effect for the December 2018 billing month).

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

9 A. KU is recommending an overall rate of return on capital of 8.86%, including the
10 currently approved 9.7% return on equity and adjusted capitalization, to be used to
11 calculate the environmental surcharge. This is based on capitalization as of August 31,
12 2018, the Commission's Order of November 19, 2018 in Case No. 2018-00257, use of
13 the new corporate tax rate implemented in the Tax Cuts and Jobs Act, and new
14 Kentucky state corporate income tax rate.

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

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

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

19 a) The Commission should approve the proposed decrease to the Environmental
20 Surcharge Revenue Requirement of \$54,918 for one months beginning in the
21 second full billing month following the Commission's Order in this proceeding;

1 b) The Commission should determine the environmental surcharge amount for the
2 six-month billing period ending October 31, 2018 to be just and reasonable,
3 and;

4 c) The Commission should approve the use of an overall rate of return on capital
5 of 8.86% for all projects, using a return on equity of 9.70%, beginning in the
6 second full billing month following the Commission's Order in this proceeding.

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

8 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

KENTUCKY UTILITIES COMPANY ENVIRONMENTAL SURCHARGE REPORT

Net Jurisdictional E(m) and Jurisdictional Environmental Surcharge Billing Factor For the Expense Month of March 2018

GROUP 1 (Total Revenue)

Group 1 E(m) -- ES Form 1.10, line 15 = \$ (112,109)

Group 1 ES Billing Factor -- ES Form 1.10, line 17 = -0.21%

GROUP 2 (Net Revenue)

Group 2 E(m) -- ES Form 1.10, line 15 = \$ (157,709)

Group 2 ES Billing Factor -- ES Form 1.10, line 17 = -0.31%

Effective Date for Billing: May billing cycle beginning May 1, 2018

Submitted by: _____

Title: Manager, Revenue Requirement COS

Date Submitted: April 20, 2018

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor**

For the Expense Month of March 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	=	\$ 1,152,184,322
(2) RB / 12	=	\$ 96,015,360
(3) (ROR + (ROR - DR) (TR / (1 - TR)))	=	8.84%
(4) OE	=	\$ 4,898,525
(5) BAS	=	\$ -
(6) BR	=	\$ (56,377)
(7) E(m)	(2) x (3) + (4) - (5) + (6)	= \$ 13,329,906

Calculation of Adjusted Net Jurisdictional E(m)

(8) Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=	88.93%
(9) Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	\$ 11,854,285
(10) Adjustment for (Over)/Under-collection pursuant to Case No. 2017-00266	=	\$ -
(11) Prior Period Adjustment (if necessary)	=	\$ -
(12) Revenue Collected through Base Rates	=	\$ 12,124,103
(13) Adjusted Net Jurisdictional E(m) [(9) + (10) + (11) - (12)]	=	\$ (269,818)

Calculation of Group Environmental Surcharge Billing Factors

		<u>GROUP 1 (Total Revenue)</u>	<u>GROUP 2 (Net Revenue)</u>
(14) Revenue as a Percentage of 12-month Total Revenue ending with the Current Month -- ES Form 3.00	=	41.55%	58.45%
(15) Group E(m) [(13) x (14)]	=	\$ (112,109)	\$ (157,709)
(16) Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	\$ 52,600,488	\$ 50,493,471
(17) Group Environmental Surcharge Billing Factors [(15) ÷ (16)]	=	-0.21%	-0.31%

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

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

Determination of Environmental Compliance Rate Base

	Environmental Compliance Plan	
Eligible Pollution Control Plant	\$ 1,338,078,638	
Eligible Pollution CWIP Excluding AFUDC	178,060,781	
Subtotal		\$ 1,516,139,419
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33 and 2.34	\$ 130,487	
Less: Allowance Inventory Baseline	-	
Net Emission Allowance Inventory	130,487	
Cash Working Capital Allowance	3,118,162	
Net Unamortized Closure Cost Balance - Active Stations ¹	\$ 12,047,814	
Net Unamortized Closure Cost Balance - Retired Stations ¹	9,500,458	
Subtotal		\$ 24,796,921
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant	\$ 94,530,312	
Pollution Control Deferred Income Taxes	294,221,706	
Pollution Control Deferred Investment Tax Credit	-	
Subtotal		\$ 388,752,018
Environmental Compliance Rate Base		\$ 1,152,184,322

Determination of Pollution Control Operating Expenses

	Environmental Compliance Plan	
Monthly Operations & Maintenance Expense		\$ 1,815,352
Monthly Depreciation & Amortization Expense		2,706,306
Monthly Taxes Other Than Income Taxes - Eligible Plant		156,859
Monthly Taxes Other Than Income Taxes - Closure Costs		-
Amortization of Monthly Closure Costs - Active Stations		68,597
Amortization of Monthly Closure Costs - Retired Stations		151,125
Monthly Emission Allowance Expense from ES Form 2.31, 2.32, 2.33 and 2.34	286	
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		286
Monthly Surcharge Consultant Fee		-
Construction Monitoring Consultant Fee		-
Total Pollution Control Operations Expense		\$ 4,898,525

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	\$ 18,221
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	(74,597)
Net Beneficial Reuse Operations Expense	\$ (56,377)

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
Plant, CWIP & Depreciation Expense

For the Month Ended: March 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	Unamortized ITC as of 3/31/2018	Deferred Tax Balance as of 3/31/2018	Monthly Depreciation Expense	Monthly Property Tax Expense
				(2)-(3)+(4)				
2009 Plan:								
Project 28 - Brown 3 SCR	\$ 100,049,070	\$ 12,179,477	\$ -	\$ 87,869,593	\$ -	\$ 27,880,786	\$ 220,942	\$ 11,067
Project 29 - ATB Expansion at E.W. Brown Station (Phase II)	\$ 19,347,703	\$ 2,339,236	\$ -	\$ 17,008,467	\$ -	\$ 5,549,910	\$ 42,693	\$ 2,149
Project 30 - Ghent CCP Storage (Landfill- Phase I)	\$ 349,137,977	\$ 26,625,943	\$ 1,666,199	\$ 324,178,234	\$ -	\$ 69,082,260	\$ 717,230	\$ 40,612
Project 31 - Trimble County Ash Treatment Basin (BAP/GSP)	\$ 9,031,671	\$ 1,160,119	\$ -	\$ 7,871,552	\$ -	\$ 977,917	\$ 8,705	\$ 987
Project 32 - Trimble County CCP Storage (Landfill - Phase I)	\$ 4,907,957	\$ 246,576	\$ 82,530,463	\$ 87,191,844	\$ -	\$ 715,864	\$ 7,390	\$ 544
Project 33 - Beneficial Reuse	\$ 4,193,823	\$ 474,130	\$ -	\$ 3,719,693	\$ -	\$ 876,079	\$ 8,033	\$ 468
Subtotal	\$ 486,668,200	\$ 43,025,480	\$ 84,196,663	\$ 527,839,383	\$ -	\$ 105,082,815	\$ 1,004,993	\$ 55,827
Less Retirements and Replacement resulting from implementation of 2009 Plan	\$ (1,628,897)	\$ (263,183)	\$ -	\$ (1,365,714)	\$ -	\$ (312,617)	\$ (3,498)	\$ (173)
Net Total - 2009 Plan:	\$ 485,039,303	\$ 42,762,297	\$ 84,196,663	\$ 526,473,668	\$ -	\$ 104,770,199	\$ 1,001,496	\$ 55,654
2011 Plan:								
Project 29 - Brown Landfill (Phase I)	\$ 120,283,541	\$ 4,009,799	\$ 382,361	\$ 116,656,103	\$ -	\$ 23,783,405	\$ 251,790	\$ 14,634
Project 34 - E.W. Brown Station Air Compliance	\$ 84,655,448	\$ 4,845,559	\$ -	\$ 79,809,888	\$ -	\$ 19,407,423	\$ 186,947	\$ 10,046
Project 35 - Ghent Station Air Compliance	\$ 641,481,666	\$ 42,816,827	\$ 6,572,508	\$ 605,237,348	\$ -	\$ 145,631,164	\$ 1,252,973	\$ 76,103
Subtotal	\$ 846,420,655	\$ 51,672,185	\$ 6,954,869	\$ 801,703,339	\$ -	\$ 188,821,992	\$ 1,691,711	\$ 100,784
Less Retirements and Replacement resulting from implementation of 2011 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2011 Plan:	\$ 846,420,655	\$ 51,672,185	\$ 6,954,869	\$ 801,703,339	\$ -	\$ 188,821,992	\$ 1,691,711	\$ 100,784
2016 Plan:								
Project 36 - Brown Landfill (Phase II)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Project 37 - Ghent 2 WFGD Improvements	\$ 3,077,193	\$ 70,474	\$ -	\$ 3,006,719	\$ -	\$ 547,936	\$ 6,103	\$ 378
Project 38 - Supplemental Mercury Control	\$ 3,191,413	\$ 15,763	\$ 936,532	\$ 4,112,182	\$ -	\$ 20,002	\$ 6,305	\$ -
Project 40 - Ghent New Process Water Systems	\$ -	\$ -	\$ 65,777,573	\$ 65,777,573	\$ -	\$ -	\$ -	\$ 0
Project 41 - Trimble County New Process Water Systems	\$ 350,074	\$ 9,592	\$ 18,891,505	\$ 19,231,988	\$ -	\$ 61,577	\$ 691	\$ 43
Project 42 - Brown New Process Water Systems	\$ -	\$ -	\$ 1,303,639	\$ 1,303,639	\$ -	\$ -	\$ -	\$ 0
Subtotal	\$ 6,618,680	\$ 95,830	\$ 86,909,249	\$ 93,432,100	\$ -	\$ 629,515	\$ 13,100	\$ 421
Less Retirements and Replacement resulting from implementation of 2016 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2016 Plan:	\$ 6,618,680	\$ 95,830	\$ 86,909,249	\$ 93,432,100	\$ -	\$ 629,515	\$ 13,100	\$ 421
Net Total - All Plans:	\$ 1,338,078,638	\$ 94,530,312	\$ 178,060,781	\$ 1,421,609,107	\$ -	\$ 294,221,706	\$ 2,706,306	\$ 156,859

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%

Note 2: Project 29 as approved in the 2009 ECR Plan recovers costs associated with the Brown Aux Pond (Phase II). In the 2011 Plan, Project 29 was amended to recover costs associated with the conversion of the Brown Main Ash Pond to the Brown Landfill (Phase I)

Note 3: The Deferred Tax Balance includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.

ES FORM 1.00

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Net Jurisdictional E(m) and
Jurisdictional Environmental Surcharge Billing Factor
For the Expense Month of April 2018**

GROUP 1 (Total Revenue)

Group 1 E(m) -- ES Form 1.10, line 15 = \$ (92,667)

Group 1 ES Billing Factor -- ES Form 1.10, line 17 = -0.17%

GROUP 2 (Net Revenue)

Group 2 E(m) -- ES Form 1.10, line 15 = \$ (129,130)

Group 2 ES Billing Factor -- ES Form 1.10, line 17 = -0.25%

Effective Date for Billing: June billing cycle beginning May 31, 2018

Submitted by: _____

Title: Manager, Revenue Requirement COS

Date Submitted: May 21, 2018

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor**

For the Expense Month of April 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	=	\$ 1,169,429,250
(2) RB / 12	=	\$ 97,452,438
(3) (ROR + (ROR - DR) (TR / (1 - TR)))	=	8.84%
(4) OE	=	\$ 4,934,117
(5) BAS	=	\$ -
(6) BR	=	\$ (92,621)
(7) E(m)	(2) x (3) + (4) - (5) + (6)	= \$ 13,456,291

Calculation of Adjusted Net Jurisdictional E(m)

(8) Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=	88.12%
(9) Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	\$ 11,857,684
(10) Adjustment for (Over)/Under-collection pursuant to Case No. 2017-00266	=	\$ -
(11) Prior Period Adjustment (if necessary)	=	\$ -
(12) Revenue Collected through Base Rates	=	\$ 12,079,481
(13) Adjusted Net Jurisdictional E(m) [(9) + (10) + (11) - (12)]	=	\$ (221,797)

Calculation of Group Environmental Surcharge Billing Factors

		<u>GROUP 1 (Total Revenue)</u>	<u>GROUP 2 (Net Revenue)</u>
(14) Revenue as a Percentage of 12-month Total Revenue ending with the Current Month -- ES Form 3.00	=	41.78%	58.22%
(15) Group E(m) [(13) x (14)]	=	\$ (92,667)	\$ (129,130)
(16) Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	\$ 53,508,499	\$ 50,903,340
(17) Group Environmental Surcharge Billing Factors [(15) ÷ (16)]	=	-0.17%	-0.25%

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

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

Determination of Environmental Compliance Rate Base

	Environmental Compliance Plan	
Eligible Pollution Control Plant	\$ 1,338,078,638	
Eligible Pollution CWIP Excluding AFUDC	196,131,515	
Subtotal		\$ 1,534,210,153
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33 and 2.34	\$ 130,162	
Less: Allowance Inventory Baseline	-	
Net Emission Allowance Inventory	130,162	
Cash Working Capital Allowance	3,119,384	
Net Unamortized Closure Cost Balance - Active Stations ¹	\$ 13,609,410	
Net Unamortized Closure Cost Balance - Retired Stations ¹	10,732,589	
Subtotal		\$ 27,591,545
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant	\$ 97,236,697	
Pollution Control Deferred Income Taxes	295,135,751	
Pollution Control Deferred Investment Tax Credit	-	
Subtotal		\$ 392,372,448
Environmental Compliance Rate Base		\$ 1,169,429,250

Determination of Pollution Control Operating Expenses

	Environmental Compliance Plan	
Monthly Operations & Maintenance Expense		\$ 1,824,882
Monthly Depreciation & Amortization Expense		2,706,306
Monthly Taxes Other Than Income Taxes - Eligible Plant		156,859
Monthly Taxes Other Than Income Taxes - Closure Costs		-
Amortization of Monthly Closure Costs - Active Stations		76,371
Amortization of Monthly Closure Costs - Retired Stations		169,374
Monthly Emission Allowance Expense from ES Form 2.31, 2.32, 2.33 and 2.34	325	
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		325
Monthly Surcharge Consultant Fee		-
Construction Monitoring Consultant Fee		-
Total Pollution Control Operations Expense		\$ 4,934,117

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	\$ (10,991)
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	(81,630)
Net Beneficial Reuse Operations Expense	\$ (92,621)

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
Plant, CWIP & Depreciation Expense

For the Month Ended: April 30, 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	Unamortized ITC as of 4/30/2018	Deferred Tax Balance as of 4/30/2018	Monthly Depreciation Expense	Monthly Property Tax Expense
				(2)-(3)+(4)				
2009 Plan:								
Project 28 - Brown 3 SCR	\$ 100,049,070	\$ 12,400,418	\$ -	\$ 87,648,651	\$ -	\$ 27,843,293	\$ 220,942	\$ 11,067
Project 29 - ATB Expansion at E.W. Brown Station (Phase II)	\$ 19,347,703	\$ 2,381,929	\$ -	\$ 16,965,774	\$ -	\$ 5,548,426	\$ 42,693	\$ 2,149
Project 30 - Ghent CCP Storage (Landfill- Phase I)	\$ 349,137,977	\$ 27,343,173	\$ 1,773,684	\$ 323,568,487	\$ -	\$ 69,231,058	\$ 717,230	\$ 40,612
Project 31 - Trimble County Ash Treatment Basin (BAP/GSP)	\$ 9,031,671	\$ 1,168,823	\$ -	\$ 7,862,848	\$ -	\$ 984,153	\$ 8,705	\$ 987
Project 32 - Trimble County CCP Storage (Landfill - Phase I)	\$ 4,907,957	\$ 253,967	\$ 87,304,996	\$ 91,958,987	\$ -	\$ 716,785	\$ 7,390	\$ 544
Project 33 - Beneficial Reuse	\$ 4,193,823	\$ 482,163	\$ -	\$ 3,711,660	\$ -	\$ 876,506	\$ 8,033	\$ 468
Subtotal	\$ 486,668,200	\$ 44,030,474	\$ 89,078,680	\$ 531,716,406	\$ -	\$ 105,200,221	\$ 1,004,993	\$ 55,827
Less Retirements and Replacement resulting from implementation of 2009 Plan	\$ (1,628,897)	\$ (266,602)	\$ -	\$ (1,362,295)	\$ -	\$ (311,287)	\$ (3,498)	\$ (173)
Net Total - 2009 Plan:	\$ 485,039,303	\$ 43,763,872	\$ 89,078,680	\$ 530,354,111	\$ -	\$ 104,888,934	\$ 1,001,496	\$ 55,654
2011 Plan:								
Project 29 - Brown Landfill (Phase I)	\$ 120,283,541	\$ 4,261,589	\$ 419,200	\$ 116,441,152	\$ -	\$ 23,893,316	\$ 251,790	\$ 14,634
Project 34 - E.W. Brown Station Air Compliance	\$ 84,655,448	\$ 5,032,507	\$ -	\$ 79,622,941	\$ -	\$ 19,506,578	\$ 186,947	\$ 10,046
Project 35 - Ghent Station Air Compliance	\$ 641,481,666	\$ 44,069,800	\$ 6,645,135	\$ 604,057,001	\$ -	\$ 146,211,252	\$ 1,252,973	\$ 76,103
Subtotal	\$ 846,420,655	\$ 53,363,896	\$ 7,064,335	\$ 800,121,094	\$ -	\$ 189,611,146	\$ 1,691,711	\$ 100,784
Less Retirements and Replacement resulting from implementation of 2011 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2011 Plan:	\$ 846,420,655	\$ 53,363,896	\$ 7,064,335	\$ 800,121,094	\$ -	\$ 189,611,146	\$ 1,691,711	\$ 100,784
2016 Plan:								
Project 36 - Brown Landfill (Phase II)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Project 37 - Ghent 2 WFGD Improvements	\$ 3,077,193	\$ 76,578	\$ -	\$ 3,000,616	\$ -	\$ 549,006	\$ 6,103	\$ 378
Project 38 - Supplemental Mercury Control	\$ 3,191,413	\$ 22,068	\$ 948,674	\$ 4,118,019	\$ -	\$ 24,960	\$ 6,305	\$ -
Project 40 - Ghent New Process Water Systems	\$ -	\$ -	\$ 78,090,244	\$ 78,090,244	\$ -	\$ -	\$ -	\$ 0
Project 41 - Trimble County New Process Water Systems	\$ 350,074	\$ 10,283	\$ 19,590,272	\$ 19,930,063	\$ -	\$ 61,705	\$ 691	\$ 43
Project 42 - Brown New Process Water Systems	\$ -	\$ -	\$ 1,359,311	\$ 1,359,311	\$ -	\$ -	\$ -	\$ 0
Subtotal	\$ 6,618,680	\$ 108,929	\$ 99,988,501	\$ 106,498,252	\$ -	\$ 635,671	\$ 13,100	\$ 421
Less Retirements and Replacement resulting from implementation of 2016 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2016 Plan:	\$ 6,618,680	\$ 108,929	\$ 99,988,501	\$ 106,498,252	\$ -	\$ 635,671	\$ 13,100	\$ 421
Net Total - All Plans:	\$ 1,338,078,638	\$ 97,236,697	\$ 196,131,515	\$ 1,436,973,456	\$ -	\$ 295,135,751	\$ 2,706,306	\$ 156,859

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%

Note 2: Project 29 as approved in the 2009 ECR Plan recovers costs associated with the Brown Aux Pond (Phase II). In the 2011 Plan, Project 29 was amended to recover costs associated with the conversion of the Brown Main Ash Pond to the Brown Landfill (Phase I)

Note 3: The Deferred Tax Balance includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.

ES FORM 1.00

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Net Jurisdictional E(m) and
Jurisdictional Environmental Surcharge Billing Factor
For the Expense Month of May 2018**

GROUP 1 (Total Revenue)

Group 1 E(m) -- ES Form 1.10, line 15 = **\$ 336,218**

Group 1 ES Billing Factor -- ES Form 1.10, line 17 = **0.62%**

GROUP 2 (Net Revenue)

Group 2 E(m) -- ES Form 1.10, line 15 = **\$ 467,170**

Group 2 ES Billing Factor -- ES Form 1.10, line 17 = **0.91%**

Effective Date for Billing: July billing cycle beginning June 29, 2018

Submitted by: _____

Title: Manager, Revenue Requirement COS

Date Submitted: June 19, 2018

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor**

For the Expense Month of May 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	=	\$ 1,185,629,699
(2) RB / 12	=	\$ 98,802,475
(3) (ROR + (ROR - DR) (TR / (1 - TR)))	=	8.84%
(4) OE	=	\$ 5,284,249
(5) BAS	=	\$ -
(6) BR	=	\$ (136,679)
(7) E(m)	(2) x (3) + (4) - (5) + (6)	= \$ 13,881,709

Calculation of Adjusted Net Jurisdictional E(m)

(8) Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=	88.64%
(9) Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	\$ 12,304,747
(10) Adjustment for (Over)/Under-collection pursuant to Case No. 2017-00266	=	\$ -
(11) Prior Period Adjustment (if necessary)	=	\$ -
(12) Revenue Collected through Base Rates	=	\$ 11,501,359
(13) Adjusted Net Jurisdictional E(m) [(9) + (10) + (11) - (12)]	=	\$ 803,388

Calculation of Group Environmental Surcharge Billing Factors

		<u>GROUP 1 (Total Revenue)</u>	<u>GROUP 2 (Net Revenue)</u>
(14) Revenue as a Percentage of 12-month Total Revenue ending with the Current Month -- ES Form 3.00	=	41.85%	58.15%
(15) Group E(m) [(13) x (14)]	=	\$ 336,218	\$ 467,170
(16) Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	\$ 53,930,050	\$ 51,136,857
(17) Group Environmental Surcharge Billing Factors [(15) ÷ (16)]	=	0.62%	0.91%

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

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

Determination of Environmental Compliance Rate Base

	Environmental Compliance Plan	
Eligible Pollution Control Plant	\$ 1,338,078,638	
Eligible Pollution CWIP Excluding AFUDC	214,456,315	
Subtotal		\$ 1,552,534,953
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33 and 2.34	\$ 129,824	
Less: Allowance Inventory Baseline	-	
Net Emission Allowance Inventory	129,824	
Cash Working Capital Allowance	3,118,322	
Net Unamortized Closure Cost Balance - Active Stations ¹	\$ 14,907,533	
Net Unamortized Closure Cost Balance - Retired Stations ¹	11,296,571	
Subtotal		\$ 29,452,250
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant	\$ 99,943,082	
Pollution Control Deferred Income Taxes	296,414,422	
Pollution Control Deferred Investment Tax Credit	-	
Subtotal		\$ 396,357,504
Environmental Compliance Rate Base		\$ 1,185,629,699

Determination of Pollution Control Operating Expenses

	Environmental Compliance Plan	
Monthly Operations & Maintenance Expense		\$ 2,159,935
Monthly Depreciation & Amortization Expense		2,706,306
Monthly Taxes Other Than Income Taxes - Eligible Plant		156,859
Monthly Taxes Other Than Income Taxes - Closure Costs		-
Amortization of Monthly Closure Costs - Active Stations		82,667
Amortization of Monthly Closure Costs - Retired Stations		178,143
Monthly Emission Allowance Expense from ES Form 2.31, 2.32, 2.33 and 2.34	339	
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		339
Monthly Surcharge Consultant Fee		-
Construction Monitoring Consultant Fee		-
Total Pollution Control Operations Expense		\$ 5,284,249

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	\$ (43,609)
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	(93,070)
Net Beneficial Reuse Operations Expense	\$ (136,679)

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
Plant, CWIP & Depreciation Expense

For the Month Ended: May 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	Unamortized ITC as of 5/31/2018	Deferred Tax Balance as of 5/31/2018	Monthly Depreciation Expense	Monthly Property Tax Expense
				(2)-(3)+(4)				
2009 Plan:								
Project 28 - Brown 3 SCR	\$ 100,049,070	\$ 12,621,360	\$ -	\$ 87,427,710	\$ -	\$ 27,805,800	\$ 220,942	\$ 11,067
Project 29 - ATB Expansion at E.W. Brown Station (Phase II)	\$ 19,347,703	\$ 2,424,622	\$ -	\$ 16,923,081	\$ -	\$ 5,519,080	\$ 42,693	\$ 2,149
Project 30 - Ghent CCP Storage (Landfill- Phase I)	\$ 349,137,977	\$ 28,060,403	\$ 1,855,994	\$ 322,933,567	\$ -	\$ 69,352,062	\$ 717,230	\$ 40,612
Project 31 - Trimble County Ash Treatment Basin (BAP/GSP)	\$ 9,031,671	\$ 1,177,528	\$ -	\$ 7,854,143	\$ -	\$ 990,388	\$ 8,705	\$ 987
Project 32 - Trimble County CCP Storage (Landfill - Phase I)	\$ 4,907,957	\$ 261,357	\$ 88,706,822	\$ 93,353,422	\$ -	\$ 717,707	\$ 7,390	\$ 544
Project 33 - Beneficial Reuse	\$ 4,193,823	\$ 490,197	\$ -	\$ 3,703,626	\$ -	\$ 876,933	\$ 8,033	\$ 468
Subtotal	\$ 486,668,200	\$ 45,035,467	\$ 90,562,816	\$ 532,195,549	\$ -	\$ 105,261,970	\$ 1,004,993	\$ 55,827
Less Retirements and Replacement resulting from implementation of 2009 Plan	\$ (1,628,897)	\$ (270,021)	\$ -	\$ (1,358,876)	\$ -	\$ (309,957)	\$ (3,498)	\$ (173)
Net Total - 2009 Plan:	\$ 485,039,303	\$ 44,765,446	\$ 90,562,816	\$ 530,836,673	\$ -	\$ 104,952,013	\$ 1,001,496	\$ 55,654
2011 Plan:								
Project 29 - Brown Landfill (Phase I)	\$ 120,283,541	\$ 4,513,378	\$ 501,667	\$ 116,271,829	\$ -	\$ 24,424,335	\$ 251,790	\$ 14,634
Project 34 - E.W. Brown Station Air Compliance	\$ 84,655,448	\$ 5,219,454	\$ -	\$ 79,435,993	\$ -	\$ 19,605,733	\$ 186,947	\$ 10,046
Project 35 - Ghent Station Air Compliance	\$ 641,481,666	\$ 45,322,774	\$ 6,710,961	\$ 602,869,853	\$ -	\$ 146,791,341	\$ 1,252,973	\$ 76,103
Subtotal	\$ 846,420,655	\$ 55,055,606	\$ 7,212,628	\$ 798,577,676	\$ -	\$ 190,821,409	\$ 1,691,711	\$ 100,784
Less Retirements and Replacement resulting from implementation of 2011 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2011 Plan:	\$ 846,420,655	\$ 55,055,606	\$ 7,212,628	\$ 798,577,676	\$ -	\$ 190,821,409	\$ 1,691,711	\$ 100,784
2016 Plan:								
Project 36 - Brown Landfill (Phase II)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Project 37 - Ghent 2 WFGD Improvements	\$ 3,077,193	\$ 82,681	\$ -	\$ 2,994,512	\$ -	\$ 549,248	\$ 6,103	\$ 378
Project 38 - Supplemental Mercury Control	\$ 3,191,413	\$ 28,374	\$ 990,205	\$ 4,153,244	\$ -	\$ 29,919	\$ 6,305	\$ -
Project 40 - Ghent New Process Water Systems	\$ -	\$ -	\$ 93,118,343	\$ 93,118,343	\$ -	\$ -	\$ -	\$ 0
Project 41 - Trimble County New Process Water Systems	\$ 350,074	\$ 10,975	\$ 21,111,334	\$ 21,450,433	\$ -	\$ 61,833	\$ 691	\$ 43
Project 42 - Brown New Process Water Systems	\$ -	\$ -	\$ 1,460,989	\$ 1,460,989	\$ -	\$ -	\$ -	\$ 0
Subtotal	\$ 6,618,680	\$ 122,029	\$ 116,680,872	\$ 123,177,523	\$ -	\$ 641,000	\$ 13,100	\$ 421
Less Retirements and Replacement resulting from implementation of 2016 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2016 Plan:	\$ 6,618,680	\$ 122,029	\$ 116,680,872	\$ 123,177,523	\$ -	\$ 641,000	\$ 13,100	\$ 421
Net Total - All Plans:	\$ 1,338,078,638	\$ 99,943,082	\$ 214,456,315	\$ 1,452,591,871	\$ -	\$ 296,414,422	\$ 2,706,306	\$ 156,859

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%

Note 2: Project 29 as approved in the 2009 ECR Plan recovers costs associated with the Brown Aux Pond (Phase II). In the 2011 Plan, Project 29 was amended to recover costs associated with the conversion of the Brown Main Ash Pond to the Brown Landfill (Phase I)

Note 3: The Deferred Tax Balance includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.

ES FORM 1.00

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Net Jurisdictional E(m) and
Jurisdictional Environmental Surcharge Billing Factor
For the Expense Month of June 2018**

GROUP 1 (Total Revenue)

Group 1 E(m) -- ES Form 1.10, line 15 = \$ (389,422)

Group 1 ES Billing Factor -- ES Form 1.10, line 17 = -0.72%

GROUP 2 (Net Revenue)

Group 2 E(m) -- ES Form 1.10, line 15 = \$ (537,993)

Group 2 ES Billing Factor -- ES Form 1.10, line 17 = -1.05%

Effective Date for Billing: August billing cycle beginning August 1, 2018

Submitted by: _____

Title: Manager, Revenue Requirement COS

Date Submitted: July 20, 2018

**KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT**

**Calculation of Total E(m) and
Jurisdictional Surcharge Billing Factor**

For the Expense Month of June 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	=	\$ 1,193,858,194
(2) RB / 12	=	\$ 99,488,183
(3) (ROR + (ROR - DR) (TR / (1 - TR)))	=	8.90%
(4) OE	=	\$ 4,970,054
(5) BAS	=	\$ -
(6) BR	=	\$ (122,886)
(7) E(m)	(2) x (3) + (4) - (5) + (6)	= \$ 13,701,616

Calculation of Adjusted Net Jurisdictional E(m)

(8) Jurisdictional Allocation Ratio for Expense Month -- ES Form 3.10	=	88.86%
(9) Jurisdictional E(m) = Total E(m) x Jurisdictional Allocation Ratio [(7) x (8)]	=	\$ 12,175,256
(10) Adjustment for (Over)/Under-collection pursuant to Case No. 2018-00051	=	\$ (341,879)
(11) Prior Period Adjustment (if necessary)	=	\$ -
(12) Revenue Collected through Base Rates	=	\$ 12,760,792
(13) Adjusted Net Jurisdictional E(m) [(9) + (10) + (11) - (12)]	=	\$ (927,415)

Calculation of Group Environmental Surcharge Billing Factors

		<u>GROUP 1 (Total Revenue)</u>	<u>GROUP 2 (Net Revenue)</u>
(14) Revenue as a Percentage of 12-month Total Revenue ending with the Current Month -- ES Form 3.00	=	41.99%	58.01%
(15) Group E(m) [(13) x (14)]	=	\$ (389,422)	\$ (537,993)
(16) Group R(m) = Average Monthly Group Revenue for the 12 Months Ending with the Current Expense Month -- ES Form 3.00	=	\$ 54,188,777	\$ 51,122,047
(17) Group Environmental Surcharge Billing Factors [(15) ÷ (16)]	=	-0.72%	-1.05%

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT

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

Determination of Environmental Compliance Rate Base

	Environmental Compliance Plan	
Eligible Pollution Control Plant	\$ 1,342,842,950	
Eligible Pollution CWIP Excluding AFUDC	219,589,155	
Subtotal		\$ 1,562,432,105
Additions:		
Inventory - Emission Allowances per ES Form 2.31, 2.32, 2.33 and 2.34	\$ 129,522	
Less: Allowance Inventory Baseline	-	
Net Emission Allowance Inventory	129,522	
Cash Working Capital Allowance	3,065,662	
Net Unamortized Closure Cost Balance - Active Stations ¹	\$ 15,220,499	
Net Unamortized Closure Cost Balance - Retired Stations ¹	12,952,069	
Subtotal		\$ 31,367,752
Deductions:		
Accumulated Depreciation on Eligible Pollution Control Plant	\$ 102,655,208	
Pollution Control Deferred Income Taxes	297,286,455	
Pollution Control Deferred Investment Tax Credit	-	
Subtotal		\$ 399,941,663
Environmental Compliance Rate Base		\$ 1,193,858,194

Determination of Pollution Control Operating Expenses

	Environmental Compliance Plan	
Monthly Operations & Maintenance Expense		\$ 2,006,625
Monthly Depreciation & Amortization Expense		2,712,048
Monthly Taxes Other Than Income Taxes - Eligible Plant		156,859
Monthly Taxes Other Than Income Taxes - Closure Costs		-
Amortization of Monthly Closure Costs - Active Stations		84,709
Amortization of Monthly Closure Costs - Retired Stations		203,580
Amortization of Excess ADIT with gross-up	\$ (144,116)	1.34662
Monthly Emission Allowance Expense from ES Form 2.31, 2.32, 2.33 and 2.34		302
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		302
Monthly Surcharge Consultant Fee		-
Construction Monitoring Consultant Fee		-
Total Pollution Control Operations Expense		\$ 4,970,054

Determination of Beneficial Reuse Operating Expenses

	Environmental Compliance Plan
Total Monthly Beneficial Reuse Expense	\$ (21,815)
Adjustment for Beneficial Reuse in Base Rates (from ES Form 2.61)	(101,071)
Net Beneficial Reuse Operations Expense	\$ (122,886)

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.

Note 2: The new line for the Amortization of Excess ADIT with gross-up amount includes a Year-to-Date total for the period January 2018 through June 2018.

KENTUCKY UTILITIES COMPANY
ENVIRONMENTAL SURCHARGE REPORT
Plant, CWIP & Depreciation Expense

For the Month Ended: June 30, 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	Unamortized ITC as of 6/30/2018	Deferred Tax Balance as of 6/30/2018	Monthly Depreciation Expense	Monthly Property Tax Expense
				(2)-(3)+(4)				
2009 Plan:								
Project 28 - Brown 3 SCR	\$ 100,049,070	\$ 12,842,302	\$ -	\$ 87,206,768	\$ -	\$ 27,768,307	\$ 220,942	\$ 11,067
Project 29 - ATB Expansion at E.W. Brown Station (Phase II)	\$ 19,347,703	\$ 2,467,315	\$ -	\$ 16,880,388	\$ -	\$ 5,519,611	\$ 42,693	\$ 2,149
Project 30 - Ghent CCP Storage (Landfill- Phase I)	\$ 349,137,977	\$ 28,777,634	\$ 2,067,884	\$ 322,428,227	\$ -	\$ 69,504,831	\$ 717,230	\$ 40,612
Project 31 - Trimble County Ash Treatment Basin (BAP/GSP)	\$ 9,031,671	\$ 1,186,233	\$ -	\$ 7,845,438	\$ -	\$ 996,624	\$ 8,705	\$ 987
Project 32 - Trimble County CCP Storage (Landfill - Phase I)	\$ 4,907,957	\$ 268,747	\$ 90,860,000	\$ 95,499,211	\$ -	\$ 718,629	\$ 7,390	\$ 544
Project 33 - Beneficial Reuse	\$ 4,193,823	\$ 498,230	\$ -	\$ 3,695,593	\$ -	\$ 877,361	\$ 8,033	\$ 468
Subtotal	\$ 486,668,200	\$ 46,040,460	\$ 92,927,884	\$ 533,555,624	\$ -	\$ 105,385,362	\$ 1,004,993	\$ 55,827
Less Retirements and Replacement resulting from implementation of 2009 Plan	\$ (1,628,897)	\$ (273,440)	\$ -	\$ (1,355,457)	\$ -	\$ (308,627)	\$ (3,498)	\$ (173)
Net Total - 2009 Plan:	\$ 485,039,303	\$ 45,767,020	\$ 92,927,884	\$ 532,200,167	\$ -	\$ 105,076,735	\$ 1,001,496	\$ 55,654
2011 Plan:								
Project 29 - Brown Landfill (Phase I)	\$ 120,283,541	\$ 4,765,168	\$ 543,915	\$ 116,062,288	\$ -	\$ 24,476,053	\$ 251,790	\$ 14,634
Project 34 - E.W. Brown Station Air Compliance	\$ 84,655,448	\$ 5,406,402	\$ -	\$ 79,249,046	\$ -	\$ 19,704,888	\$ 186,947	\$ 10,046
Project 35 - Ghent Station Air Compliance	\$ 646,245,978	\$ 46,581,489	\$ 2,634,273	\$ 602,298,762	\$ -	\$ 147,381,505	\$ 1,258,715	\$ 76,103
Subtotal	\$ 851,184,967	\$ 56,753,059	\$ 3,178,188	\$ 797,610,096	\$ -	\$ 191,562,446	\$ 1,697,453	\$ 100,784
Less Retirements and Replacement resulting from implementation of 2011 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2011 Plan:	\$ 851,184,967	\$ 56,753,059	\$ 3,178,188	\$ 797,610,096	\$ -	\$ 191,562,446	\$ 1,697,453	\$ 100,784
2016 Plan:								
Project 36 - Brown Landfill (Phase II)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Project 37 - Ghent 2 WFGD Improvements	\$ 3,077,193	\$ 88,784	\$ -	\$ 2,988,409	\$ -	\$ 550,436	\$ 6,103	\$ 378
Project 38 - Supplemental Mercury Control	\$ 3,191,413	\$ 34,679	\$ 1,018,070	\$ 4,174,804	\$ -	\$ 34,877	\$ 6,305	\$ -
Project 40 - Ghent New Process Water Systems	\$ -	\$ -	\$ 97,434,636	\$ 97,434,636	\$ -	\$ -	\$ -	\$ 0
Project 41 - Trimble County New Process Water Systems	\$ 350,074	\$ 11,666	\$ 22,895,473	\$ 23,233,881	\$ -	\$ 61,961	\$ 691	\$ 43
Project 42 - Brown New Process Water Systems	\$ -	\$ -	\$ 2,134,904	\$ 2,134,904	\$ -	\$ -	\$ -	\$ 0
Subtotal	\$ 6,618,680	\$ 135,129	\$ 123,483,083	\$ 129,966,635	\$ -	\$ 647,274	\$ 13,100	\$ 421
Less Retirements and Replacement resulting from implementation of 2016 Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Total - 2016 Plan:	\$ 6,618,680	\$ 135,129	\$ 123,483,083	\$ 129,966,635	\$ -	\$ 647,274	\$ 13,100	\$ 421
Net Total - All Plans:	\$ 1,342,842,950	\$ 102,655,208	\$ 219,589,155	\$ 1,459,776,897	\$ -	\$ 297,286,455	\$ 2,712,048	\$ 156,859

Note 1: Trimble County projects for the 2009 Plan are proportionately shared by KU at 48% and LG&E at 52%

Note 2: Project 29 as approved in the 2009 ECR Plan recovers costs associated with the Brown Aux Pond (Phase II). In the 2011 Plan, Project 29 was amended to recover costs associated with the conversion of the Brown Main Ash Pond to the Brown Landfill (Phase I)

Note 3: The Deferred Tax Balance includes Excess Deferred Taxes resulting from the Tax Cuts and Jobs Act.