COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN EXAMINATION BY THE PUBLIC SERVICE)	
COMMISSION OF THE ENVIRONMENTAL)	
SURCHARGE MECHANISM OF LOUISVILLE GAS)	CASE NO.
AND ELECTRIC COMPANY FOR THE TWO-YEAR)	2015-00222
BILLING PERIOD ENDING APRIL 30, 2015)	

DIRECT TESTIMONY OF

ROBERT M. CONROY DIRECTOR - RATES LG&E AND KU SERVICES COMPANY

Filed: August 12, 2015

- 1 Q. Please state your name, title, and business address.
- 2 A. My name is Robert M. Conroy. I am the Director Rates for LG&E and KU
- 3 Services Company, which provides services to Louisville Gas and Electric Company
- 4 ("LG&E" or "Company") and Kentucky Utilities Company ("KU") (collectively "the
- 5 Companies"). My business address is 220 West Main Street, Louisville, Kentucky,
- 6 40202. A complete statement of my education and work experience is attached to this
- 7 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 Companies' most recent rate cases, fuel adjustment clauses, and environmental
- 11 cost recovery ("ECR") surcharge mechanisms.

12 Q. Are you sponsoring any exhibits?

- 13 A. Yes. I am sponsoring three exhibits identified as Exhibits RMC-1, RMC-2, and
- 14 RMC-3. These exhibits are:
- 15 Exhibit RMC-1 Comparison of ECR Revenue Requirement Allocation
- Methods to Actual ECR Billing Factor Revenues for twelve months ended
- 17 February 28, 2015
- 18 *Exhibit RMC-2* Proposed ECR Tariff
- 19 *Exhibit RMC-3* Proposed ECR Tariff Redline

20 Q. What is the purpose of this proceeding?

- 21 A. The purpose of this proceeding is to review the past operation of LG&E's
- 22 environmental surcharge during the six-month billing period ending April 30, 2015
- that is part of the two-year billing period also ending April 30, 2015, determine

whether the surcharge amounts collected during the period are just and reasonable, and then incorporate or "roll-in" such surcharge amounts into LG&E's existing electric base rates.

4 Q. What is the purpose of your testimony?

A.

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. In addition, my testimony will recommend that the cumulative ECR revenue requirement for the twelve months ending with the expense month of February 2015 be used for purposes of incorporating or "rolling-into" LG&E's electric base rates the appropriate surcharge amounts using the methodology previously approved by the Commission, most recently in Case No. 2013-00243.

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

LG&E billed an environmental surcharge to its customers from November 1, 2014 through April 30, 2015. 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, 2015; that same review period is part of the two-year billing period also ending April 30, 2015. (The three previous billing periods were reviewed in Case Nos. 2013-00437 and 2015-00021.) 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 surchargefactors 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 2014 through February 2015, as detailed in the attachment in response to Question No. 2 of the Commission Staff's 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. 2011-00162, the Commission approved LG&E's 2011 ECR Compliance
Plan that included two new projects and associated operation and maintenance costs,

and approved the reporting of operation and maintenance costs associated with sorbent injection approved with the 2006 Plan for Mill Creek Units 3 and 4 and Trimble County Unit 1 as part of the 2011 Plan. Pursuant to the Commission's December 15, 2011 Order approving the Settlement Agreement in Case No. 2011-00162, LG&E began including the approved projects in the monthly filing for the December 2011 expense month that was billed in February 2012 with separate authorized rates of return for the Pre-2011 and 2011 ECR Plans. In addition, the Commission approved the use of net (non-fuel) revenues to calculate the jurisdictional revenue requirement for non-residential customers defined as Group 2 in the ECR Tariff. The use of net revenues for Group 2 customers was implemented in Case No. 2011-00232 as discussed below.

Q.

In Case No. 2014-00372, LG&E's most recently approved rate case, the Commission reset the return on equity to be used in the monthly environmental surcharge filings. Pursuant to the Commission's June 30, 2015 Order in that case, the changes will be implemented with the July 2015 expense month. The approved return on equity is used in this proceeding to establish the overall rate of return on capital to be used to calculate the environmental surcharge as discussed later in this testimony.

- Please describe the most recently approved changes to the environmental surcharge mechanism and the monthly ES forms.
- A. In Case No. 2011-00232, the Commission implemented the use of net revenues to calculate the jurisdictional revenue requirement for non-residential customers defined as Group 2 in the ECR Tariff in conjunction with the ECR Roll-in and revisions to the

monthly reporting forms to reflect the implementation of Group 1 and Group 2 billing factors. Pursuant to the Commission's January 31, 2012 Order in that case, the changes were implemented with the January 2012 expense month that was billed in March 2012.

Q.

A.

In Case No. 2013-00243, LG&E's most recent ECR two-year review, the Commission approved the ECR Roll-in, revisions to the monthly ES forms to reflect the elimination of LG&E's 2005 and 2006 ECR Compliance Plans and the use of an overall authorized rate of return for all ECR Plans. Pursuant to the Commission's November 14, 2013 Order in that case, the changes were implemented with the November 2013 expense month that was billed in January 2014.

Did the approved Settlement Agreement authorizing the use of Group 1 and Group 2 billing factors address the need to evaluate this change in future Environmental Surcharge review cases?

Yes. Section 5.05 of the Settlement Agreement stated that LG&E would address the impact of this change in revenue allocation in the next two future Environmental Surcharge two-year reviews or ECR compliance plan proceedings and, if appropriate, present recommendations after consultation with affected customer representatives. The Commission's Order approving the Settlement Agreement went on to note the wisdom of the provision to address this change in the next *two* two-year Environmental Surcharge review cases and its intent to monitor the impact of this change. The current case is the second of the two-year Environmental Surcharge review cases to address the use of Group 1 and Group 2 billing factors.

- Q. How has the use of Group 1 and Group 2 billing factors functioned when compared to the anticipated results presented in the 2011 ECR Plan filing?
- A. The use of Group 1 and Group 2 billing factors to allocate the jurisdictional ECR 3 revenue requirement has functioned as expected when compared to the anticipated 4 5 results presented in the 2011 ECR Plan filing. The Group 1 billing factors are 6 calculated on a total revenue basis, therefore the use of two billing factors did not impact the revenue requirement allocation to customers served under tariffs assigned 7 to Group 1. The use of net (non-fuel) revenues to calculate the Group 2 billing factor 8 9 and to allocate the jurisdictional ECR revenue requirement to the rate classes within Group 2 is relatively consistent with the anticipated results presented in the 2011 10 ECR Plan filing. Exhibit RMC-1 contains the comparison of the ECR Revenue 11 Requirement Allocation Methods presented in the 2011 ECR Plan to the Actual ECR 12 Billing Factor Revenues for the 12-months ended February 28, 2015 for the various 13 14 rate classes and demonstrates that the actual results are relatively consistent with the anticipated results in the 2011 ECR Plan. 15
- Q. Has LG&E received any customer inquiries or complaints regarding Group 1
 and Group 2 billing factors?
- 18 A. No. LG&E has not received any customer inquiries or complaints regarding Group 1

 19 and Group 2 billing factors
- 20 Q. Is LG&E proposing any changes to the current revenue allocation methodology?
- A. No. Because customers have not expressed any concerns with the current methodology and the actual results are relatively consistent with the results

- anticipated at the time the current revenue allocation methodology was approved,
- 2 LG&E is not proposing any changes at this time.
- 3 Q. Is LG&E proposing any changes to its Environmental Cost Recovery Surcharge
- 4 tariff?
- 5 A. Yes. LG&E is proposing minor changes to its Environmental Cost Recovery
- 6 Surcharge tariff to clarify that the Off System Sales ("OSS") tracker is included with
- the Fuel Adjustment Clause revenues included on ES Forms 3.00 and 3.10. The OSS
- 8 tracker was approved as a part of the Settlement Agreement in LG&E's recent retail
- 9 rate case (Case No. 2014-00372). The proposed ECR Tariff is attached as Exhibit
- 10 RMC-2, and a redline version comparing the proposed ECR Tariff to the existing
- tariff is attached as Exhibit RMC-3.
- 12 Q. Are there any changes or adjustments in Rate Base from the originally filed
- expense months?
- 14 A. No. During the period under review, there were no changes to Rate Base from the
- originally filed billing months as summarized in LG&E's response to the
- 16 Commission Staff's Request for Information, Question No. 1. In addition, there were
- no changes identified as a result of preparing responses to the requests for
- information in this review.
- 19 Q. Are there any changes necessary to the jurisdictional revenue requirement
- 20 **(E(m))?**
- 21 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 six-month period ending February 28, 2015. The details of and support for this calculation are shown in LG&E's response to Question No. 1 of the Commission Staff's Request for Information.

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

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There are no corrections to information provided in the monthly filings during the six-month billing period under review; however a correction to the previous two sixmonth periods reviewed in Case No. 2015-00021 is necessary. The overall rate of return true-up adjustment for the six-month periods ending February 28, 2014 and August 31, 2014 did not include the full six-months in each of the periods in the calculation of the average daily balances and daily interest rates for short- and longterm debt rates. For more than thirteen years, LG&E had calculated the over/under recovery position based on the last billing month in a 6-month review period in Environmental Surcharge review cases. In Case No. 2015-00021, the Commission Staff revised Question No. 1 to require the true-up adjustment calculation as of the end of the last *expense* month in the 6-month periods under review. In the course of preparing the data responses in this case, LG&E discovered it inadvertently had not revised the calculation of the average daily balances and daily interest rates for shortand long-term debt rates to reflect six months ending with each expense period under review in the previous six-month review case, and that only four months of data was

- used in the calculations instead of six months. The result was an under-statement of the true-up adjustment of \$323,700. The under-statement of \$323,700 will be collected as a part of the cumulative under recovery for the period under review.
- 4 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?
- Yes. LG&E experienced an under-recovery of \$1,635,624 for the billing period 6 A. ending April 30, 2015. LG&E's response to Question No. 2 of the Commission 7 Staff's Request for Information shows the calculation of the under-recovery. An 8 9 adjustment to the revenue requirement is necessary to reconcile the collection of past surcharge revenues with actual costs for the billing period under review. As 10 previously discussed, LG&E also experienced an under-recovery of \$323,700 for two 11 previous six-month periods resulting from the correction to the overall rate of return 12 used in the true-up adjustment for those periods. Therefore, LG&E experienced a 13 cumulative under-recovery of \$1,959,324 for the billing period under review. 14
- 15 Q. Has LG&E identified the causes of the under-recovery during the billing period 16 under review?
- 17 A. Yes. LG&E has identified the components that make up the under-recovery during
 18 the billing period under review. The components are (1) changes in overall rate of
 19 return as previously discussed, and (2) the use of 12-month average revenues to
 20 determine the billing factor. The details and support of the components that make up
 21 the under-recovery during the billing period under review are shown in LG&E's
 22 response to Question No. 2 of the Commission Staff's Request for Information.

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

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 2014	\$ 66,651,156	November 2014	\$ 52,199,823
October 2014	66,541,188	December 2014	64,405,180
November 2014	66,387,603	January 2015	68,907,143
December 2014	66,659,744	February 2015	63,717,574
January 2015	66,456,893	March 2015	67,839,239
February 2015	65,981,629	April 2015	55,254,421

^{*}The 12-month average revenues and the Actual Revenues subject to ECR Billing Factors reflect net revenues for Group 2.

A.

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 cumulative under-recovery be collected in three months following the Commission's Order in this proceeding. Specifically, LG&E

- recommends that the Commission approve an increase to the Environmental

 Surcharge Revenue Requirement of \$653,108 per month for three 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 underrecovery positions in prior ECR review cases.
- What is the bill impact on a residential customer for the proposed collection of the under-recovery?
- A. The inclusion of the collection reflecting the under-recovery position in the determination of the ECR billing factor will increase the billing factor by approximately 0.77%. For a residential customer using an average of 973 kWh per month, the impact of the adjusted ECR billing factor would be an increase of approximately \$0.74 per month for three months (using rates and adjustment clause factors in effect for the July 2015 billing month).
- Q. Should the Commission approve incorporating into LG&E's base rates the environmental surcharge amounts found just and reasonable for the two-year billing period ending April 2015?
- 17 A. Yes. It is now appropriate to incorporate into electric base rates the surcharge
 18 amounts the Commission finds just and reasonable for the two-year billing period
 19 ending April 2015. LG&E recommends that an incremental environmental surcharge
 20 amount of \$60,574,071 be incorporated into base rates at the conclusion of this case.
 21 LG&E determined the incremental roll-in amount of \$60,574,071 using
 22 environmental surcharge rate base as of February 28, 2015 and environmental
 23 surcharge operating expenses for the twelve-month period ending February 28, 2015.

If approved, the total amount of environmental surcharge that will be included in base rates will be \$73,663,008. The implementation of the change in base rates reflecting the roll-in amount should take effect with bills rendered beginning with the first billing cycle in the second month following the month in which the Commission issues its Order in this proceeding.

- Q. If the Commission accepts LG&E's recommendation to incorporate the proposed amount into base rates, what will be the impact on LG&E's ECR revenue requirement?
- 9 A. The incorporation of the recommended surcharge amount into base rates will increase
 10 base rates and, two months later, decrease ECR revenues by an equal amount. There
 11 will be no impact on the environmental costs LG&E is allowed to recover from its
 12 customers; only the method of collection will be impacted.
- Q. Please explain why ECR revenues will not decrease in the same month that base rates will increase.
 - A. The ECR is billed on a two-month lag, meaning that costs are incurred, for example, in February 2015 (expense month) and ECR billing factor revenues are collected two months later in April 2015 (billing month). LG&E's determination of costs recoverable through the billing factor (E(m) for the expense month) are reduced by the ECR revenue included in base rates. Therefore, total ECR costs for the month of February are collected from customers through base rates in February and through the ECR billing mechanism in April. If base rates increase due to a roll-in in February, the portion of ECR costs incurred in February that is recovered through base rates will increase and the resulting decrease in the ECR billing factor will be applied in

April. If the decrease in the ECR billing factor were applied in February, the same month that base rates change, then LG&E would not be collecting the correct amount of ECR revenue associated with costs incurred in December. This is because the February billing factor is associated with the December expense month and must be calculated using base rates in effect in December.

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 9.99%, including the currently approved 10.00% return on equity and adjusted capitalization, to be used to calculate the environmental surcharge. This is based on capitalization as of February 28, 2015 and the Commission's Order of June 30, 2015 in Case No. 2014-00372 and use of the 2015 gross-up revenue factor that excludes the §199 manufacturing tax deduction. Please see the response and attachment to Commission Staff's Request for Information Question No. 6 following this testimony.

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

- 16 A. LG&E makes the following recommendations to the Commission in this case:
 - a) The Commission should approve the proposed increase to the Environmental Surcharge Revenue Requirement of \$653,108 per month for three months starting 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, 2015 to be just and reasonable;

- 1 c) The Commission should approve the use of an overall rate of return on capital
 2 of 9.99%, using a return on equity of 10.00%, beginning in the second full
 3 billing month following the Commission's Order in this proceeding;
 - d) The Commission should approve a "roll-in" of \$60,574,071 in incremental environmental costs into LG&E's base rates, for a total base rate ECR component of \$73,663,008, to be included in base rates following the methodology previously approved by the Commission and implemented by LG&E. The implementation of the change in base rates reflecting the roll-in amount should take effect with bills rendered beginning with the first billing cycle in the second month following the month in which the Commission issues its Order in this proceeding; and
 - e) The Commission should approve the proposed ECR Tariff to become effective with the expense month in which the Commission issues its Order.

Q. Does this conclude your testimony?

15 A. Yes.

VERIFICATION

COMMONWEALTH OF KENTUCKY)	
)	SS:
COUNTY OF JEFFERSON)	

The undersigned, Robert M. Conroy, being duly sworn, deposes and says that he is Director - Rates for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

Robert M. Conroy

Novary Public (SEAL)

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2013
Notary ID \$ 512743

APPENDIX A

Robert M. Conroy

Director, Rates LG&E and KU Services Company 220 West Main Street Louisville, Kentucky 40202

Telephone: (502) 627-3324

Previous Positions

Manager, Rates April 2004 – Feb 2008 Feb. 2001 – April 2004 Manager, Generation Systems Planning Group Leader, Generation Systems Planning Feb. 2000 – Feb. 2001 Lead Planning Engineer Oct. 1999 – Feb. 2000 Consulting System Planning Analyst April 1996 – Oct. 1999 System Planning Analyst III & IV Oct. 1992 - April 1996 System Planning Analyst II Jan. 1991 - Oct. 1992 Electrical Engineer II Jun. 1990 - Jan. 1991 Electrical Engineer I Jun. 1987 - Jun. 1990

Professional/Trade Memberships

Registered Professional Engineer in Kentucky, 1995

Education

Essentials of Leadership, London Business School, 2004

Masters of Business Administration

Indiana University (Southeast campus), December 1998

Center for Creative Leadership, Foundations in Leadership program, 1998.

Bachelor of Science in Electrical Engineering; Rose Hulman Institute of Technology, May 1987

Comparison of ECR Revenue Requirement Allocation Methods presented in the 2011 ECR Plan to Actual ECR Billing Factor Revenues for 12-months ended February 28, 2015

\$

170

10,420 \$

Special Contracts

TOTAL

(000s)(1)(2) (3) LG&E 12-months ended Feb 28. 2015 Annual based on August 2011 Annual based on August 2011 % of Actual Delta Current Alternative Delta Actual ECR **ECR** Billing (Actual to Current Alternative Method (% of Method (% of (Current to Billing Factor Factor Alternative Method Delta Revenues Method Total) Total) Alternative) Revenues \$ Residential/Other 4,487 \$ 4,487 \$ 43.1% 43.1% 0.0% \$ 15,637 42.1% 1.0% 1,538 \$ 1,720 \$ 182 14.7% 16.5% 1.8% \$ 6,015 16.2% 0.3% GS PS \$ 2,252 \$ 2,301 \$ 49 21.6% 22.0% 0.4% \$ 6,907 18.6% 3.4% \$ 1,507 \$ TOD 1.663 \$ (156)16.0% 14.5% -1.5% 6,838 18.4% -3.9% \$ \$ \$ 310 264 \$ -0.5% 1,314 RTS (46)3.0% 2.5% 3.5% -1.0% \$ 0.0% 0.0% FLS 0.0% 0.0% 0.0%

(1) Information provided in Case No. 2011-00162 (2011 ECR Plan) at the hearing held on November 10, 2011 as Hearing Exhibit 2. The revenues represent the ECR revenue requirement allocated to each rate class based on the allocation method. The "Current Method" is the Total Revenue allocation; the "Alternative Method" is the allocation of the ECR revenue requirement on a net (non-fuel) revenue basis for all rate classes except RS and lighting.

1.6%

100.0%

1.4%

100.0%

-0.2%

0.0%

\$

412

37.123

(2) The percentage of ECR revenue requirement allocated to each rate class is shown for the Current and Alternative Methods. This calculation is provided for illustrative purposes to show the relationship between each rate class and the total ECR revenue requirement.

(28)

(0)

142

10,420 \$

(3) The information provided represents the Actual ECR Billing Factor Revenues for the 12-months ended February 28, 2015 for each of the rate classes and the relationship between each class to the total ECR Billing Factor Revenues for the period. The Delta (Actual to Alternative) is provided to show the comparison of the anticipated results of the Alternative Method and Actual ECR Billing Factor Revenues. The comparison demonstrates that the actual results are relatively consistent with the anticipated results in the 2011 ECR Plan.

1.1%

100.0%

0.3%

0.0%

Louisville Gas and Electric Company

P.S.C. No. 11, First Revision of Original Sheet No. 87 Canceling P.S.C. Electric No. 10, Original Sheet No. 87

Adjustment Clause

ECR

Environmental Cost Recovery Surcharge

APPLICABLE

In all territory served.

AVAILABILITY OF SERVICE

This schedule is mandatory to all Standard Electric Rate Schedules listed in Section 1 of the General Index except CTAC and Special Charges, all Pilot Programs listed in Section 3 of the General Index, and the FAC (including the Off-System Sales Tracker) and DSM Adjustment Clauses. Standard Electric Rate Schedules subject to this schedule are divided into Group 1 or Group 2 as follows:

Group 1: Rate Schedules RS; RTOD-Energy; RTOD-Demand; VFD; LS; RLS; LE; and TE.

Group 2: Rate Schedules GS; PS; TODS; TODP; RTS; and FLS.

RATE

The monthly billing amount under each of the schedules to which this mechanism is applicable, shall be increased or decreased by a percentage factor calculated in accordance with the following formula.

Group Environmental Surcharge Billing Factor = Group E(m) / Group R(m)

As set forth below, Group E(m) is the sum of Jurisdictional E(m) of each approved environmental compliance plan revenue requirement of environmental compliance costs for the current expense month allocated to each of Group 1 and Group 2. Group R(m) for Group 1 is the 12-month average revenue for the current expense month and for Group 2 it is the 12-month average nonfuel revenue for the current expense month.

DEFINITIONS

- 1) For all Plans, E(m) = [(RB/12) (ROR + (ROR DR) (TR / (1 TR))] + OE EAS + BR
 - a) RB is the Total Environmental Compliance Rate Base.
 - b) ROR is the Rate of Return on Environmental Compliance Rate Base, designated as the overall rate of return [cost of short-term debt, long-term debt, preferred stock, and common equity].
 - c) DR is the Debt Rate [cost of short-term debt and long-term debt].
 - d) TR is the Composite Federal and State Income Tax Rate.
 - e) OE is the Operating Expenses. OE includes operation and maintenance expense recovery authorized by the K.P.S.C. in all approved ECR Plan proceedings.
 - f) EAS is the total proceeds from emission allowance sales.
 - g) BR is the operation and maintenance expenses, and/or revenues if applicable, associated with Beneficial Reuse.
 - h) Plans are the environmental surcharge compliance plans submitted to and approved by the Kentucky Public Service Commission pursuant to KRS 278.183.

DATE OF ISSUE: August 12, 2015

DATE EFFECTIVE: December 1, 2015

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates

Louisville, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. 2015-00222 dated _____

Т

Louisville Gas and Electric Company

P.S.C. No. 11, First Revision of Original Sheet No. 87 Canceling P.S.C. Electric No. 10, Original Sheet No. 87

Adjustment Clause

ECR

Environmental Cost Recovery Surcharge

APPLICABLE

In all territory served.

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This schedule is mandatory to all Standard Electric Rate Schedules listed in Section 1 of the General Index except CTAC and Special Charges, all Pilot Programs listed in Section 3 of the General Index, and the FAC (including the Off-System Sales Tracker) and DSM Adjustment Clauses. Standard Electric Rate Schedules subject to this schedule are divided into Group 1 or Group 2 as follows:

Group 1: Rate Schedules RS; RTOD-Energy; RTOD-Demand; VFD; LS; RLS; LE; and TE.

Group 2: Rate Schedules GS; PS; TODS; TODP; RTS; and FLS.

RATE

The monthly billing amount under each of the schedules to which this mechanism is applicable, shall be increased or decreased by a percentage factor calculated in accordance with the following formula.

Group Environmental Surcharge Billing Factor = Group E(m) / Group R(m)

As set forth below, Group E(m) is the sum of Jurisdictional E(m) of each approved environmental compliance plan revenue requirement of environmental compliance costs for the current expense month allocated to each of Group 1 and Group 2. Group R(m) for Group 1 is the 12-month average revenue for the current expense month and for Group 2 it is the 12-month average nonfuel revenue for the current expense month.

DEFINITIONS

- For all Plans, E(m) = [(RB/12) (ROR + (ROR DR) (TR / (1 TR))] + OE EAS + BR
 - a) RB is the Total Environmental Compliance Rate Base.
 - b) ROR is the Rate of Return on Environmental Compliance Rate Base, designated as the overall rate of return [cost of short-term debt, long-term debt, preferred stock, and common equity].
 - c) DR is the Debt Rate [cost of short-term debt and long-term debt].
 - d) TR is the Composite Federal and State Income Tax Rate.
 - e) OE is the Operating Expenses. OE includes operation and maintenance expense recovery authorized by the K.P.S.C. in all approved ECR Plan proceedings.
 - f) EAS is the total proceeds from emission allowance sales.
 - g) BR is the operation and maintenance expenses, and/or revenues if applicable, associated with Beneficial Reuse.
 - h) Plans are the environmental surcharge compliance plans submitted to and approved by the Kentucky Public Service Commission pursuant to KRS 278.183.

DATE OF ISSUE: July 10 August 12, 2015

DATE EFFECTIVE: July 1, 2015 December 1, 2015

ISSUED BY: /s/ Edwin R. Staton, Vice President

State Regulation and Rates

Louisville, Kentucky

Issued by Authority of an Order of the Public Service Commission in Case No. 2014-003722015-00222 dated June 30

Т