## 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
AND ELECTRIC COMPANY FOR THE SIX-MONTH
BILLING PERIOD ENDING OCTOBER 31, 2015

## CORRECTED

RESPONSE OF<br>LOUISVILLE GAS AND ELECTRIC COMPANY<br>TO<br>COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO<br>APPENDIX B OF COMMISSION'S ORDER<br>DATED DECEMBER 21, 2015<br>AND<br>AMENDED ORDER DATED JANUARY 7, 2016

FILED: JANUARY 19, 2016

# LOUISVILLE GAS AND ELECTRIC COMPANY 

Response to Commission Staff's First Request for Information<br>To Appendix B of Commission's Order Dated December 21, 2015 and Amended Order January 7, 2016

Case No. 2015-00412
CORRECTED QUESTION AND ATTACHMENT
Question No. 1

Witness: Derek A. Rahn / Christopher M. Garrett

Q-1. Concerning the rate of return on the 2009 and 2011 amendments to the environmental compliance plan, for the period under review, calculate any true-up adjustment needed to recognize changes in LG\&E's cost of debt, preferred stock, accounts receivable financing (if applicable), or changes in LG\&E's jurisdictional capital structure as of August 31, 2015. Include all assumptions and other supporting documentation used to make this calculation. Any true-up adjustment is to be included in the determination of the over- or underrecovery of the surcharge for the corresponding billing period under review. Provide all exhibits and schedules of your response in Excel spreadsheet format, with formulas intact and unprotected and all rows and columns accessible.

A-1. See the attachment being provided in Excel format.
LG\&E calculated the true-up adjustment to recognize changes in the cost of debt and capital structure in two steps, shown on Pages 1 and 2 of the attachment to this response. Page 1 reflects the true-up required due to the changes between the Rate Base as filed and the Rate Base as Revised through the Monthly Filings. However, during the period under review there were no revisions to reflect. Page 2 represents the true-up in the Rate of Return as filed compared to the actual Rate of Return calculations, which impacted the true-up adjustment for the period under review in this case. No further revisions to Rate Base were identified in preparation of this response.

Page 3 provides the adjusted weighted average cost of capital for the expense period ending June, 2015 to true-up the months in the review period utilizing the return on equity of $10.25 \%$ as agreed to for all ECR Plans and approved by the Commission in its December 20, 2012 Order in Case No. 2012-00222. Page 4 provides the adjusted weighted average cost of capital for the expense period ending August 31, 2015 to true-up the months in the review period utilizing the return on equity of $10.00 \%$ as agreed to for all ECR Plans and approved by the Commission in its June 30, 2015 Order in Case No. 2014-00372. LG\&E calculated the short- and long-term debt rates using average daily balances and daily interest rates pursuant to the Commission's Order in Case No. 2011-00162.

LG\&E recommends using an effective tax rate of $38.6660 \%$ in the gross-up revenue factor used in the rate of return calculation for the expense periods ended June 30, 2015 and August 31, 2015. LG\&E will incur a tax loss in 2015 as a result of bonus depreciation and will be unable to take the Internal Revenue Code $\S 199$ manufacturing tax deduction.

Page 5 provides detail for short- and long-term debt for the expense period ending June 30, 2015. Page 6 provides detail for short- and long-term debt for the expense period ending August 31, 2015.



As of June 30, 2015

|  |  | Per Books 06-30-15 <br> (1) |  | Capital Structure (2) | Electric <br> Rate Base <br> Percentage <br> (3) |  | Electric Capitalization (Coll x Col 3 ) <br> (4) |  | Adjustments <br> to Capitalization <br> (Col 18) <br> (5) |  | Adjusted Electric Capitalization $(\mathrm{Col} 4+\mathrm{Col} 5)$ <br> (6) | Adjusted Capital Structure (7) | Annual Cost Rate (8) | Cost of Capital $(\mathrm{Col} 8 \mathrm{xCol} 7)$ (9) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELECTRIC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Short Term Debt | \$ | 229,585,638 | (c) | 6.72\% | 82.350\% | \$ | 189,063,773 | \$ | $(55,128,770)$ | \$ | 133,935,003 | 6.71\% | 0.54\% | 0.04\% |
| 2. Long Term Debt |  | 1,354,869,483 | (c) | 39.63\% | 82.350\% |  | 1,115,735,020 |  | $(325,112,080)$ |  | 790,622,940 | 39.63\% | 3.67\% | 1.45\% |
| 3. Common Equity |  | 1,834,443,203 |  | 53.65\% | 82.350\% |  | 1,510,663,978 |  | $(440,127,762)$ |  | 1,070,536,216 | 53.66\% | 10.25\% | 5.50\% |
| 4. Total Capitalization | \$ | 3,418,898,325 |  | $\underline{ }$ |  | \$ | 2,815,462,771 | \$ | $\underline{(820,368,612)}$ | \$ | 1,995,094,159 | $\underline{ }$ |  | 6.99\% |

5. Weighted Cost of Capital Grossed up for Income Tax Effect $\{R O R+(R O R-D R) x[T R /(1-T R)]\}$

| Electric Capitalization (CO14) (10) | Capital Structure (11) | Trimble County Inventories (a) (Col $11 \times \operatorname{Col} 12$ Line 4) (12) |  | Investments in OVEC \& Other (Col $11 \times \mathrm{Col} 13$ Line 4) (13) |  | JDIC(Col $11 \times$ Col 14 Line 4) <br> $(14)$ |  | Environmental Compliance Rate Base (Col $11 \times$ Col 15 Line 4) (15) |  | DSMRate Base(Col $11 \times$ Col 16 Line 4)(16) |  | Advanced Coal Investment Tax Credit (b) (Col $11 \times$ Col 17 Line 4) (17) |  | Total Adjustments To Capital (Sum of Col 12 - Col 17) (18) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 189,063,773 | 6.72\% | \$ | $(314,447)$ | \$ | $(78,074)$ | \$ | 919,075 | \$ | $(56,888,445)$ | \$ | $(208,648)$ | \$ | 1,441,769 | \$ | (55,128,770) |
| 1,115,735,020 | 39.63\% |  | $(1,854,394)$ |  | $(460,430)$ |  | 5,420,079 |  | $(335,489,447)$ |  | $(1,230,463)$ |  | 8,502,575 |  | $(325,112,080)$ |
| 1,510,663,978 | 53.65\% |  | $(2,510,428)$ |  | $(623,317)$ |  | 7,337,552 |  | $(454,176,353)$ |  | $(1,665,767)$ |  | 11,510,551 |  | (440,127,762) |
| \$ 2,815,462,771 | 100.000\% | \$ | $\underline{(4,679,269)}$ | \$ | $(1,161,821)$ | \$ | 13,676,706 | \$ | (846,554,245) | \$ | $(3,104,878)$ | \$ | 21,454,895 | \$ | $(820,368,612)$ |

(a) Trimble County Inventories Materials and Supplies Stores Expense

As of June 30, 2015

$$
\begin{array}{lr}
\$ & 9,806,164 \\
& 1,805,325 \\
& 6,780,762 \\
& 193,549 \\
& 125,845 \\
& 5,430 \\
\hline \$ & 18,717,075 \\
& 25.00 \% \\
\hline \$ & 4,679,269 \\
\hline
\end{array}
$$

Limeston
Emission Allowances
Total Trimble County Inventories
Multiplied by Disallowed Portion
(b) Reflects Investment Tax Credit treatment per Case No. 2007-00179.
(c) Average daily balance per Settlement Agreement in Case No. 2011-00162.

## LOUISVILLE GAS AND ELECTRIC COMPANY

## ELECTRIC

1. Shoit Teat
2. Long Term Debt
3. Common Equity

Total Capitalization

|  |  | Electric | Electric | Adjustments <br> to |
| :---: | :---: | :---: | :---: | :---: |
| Per Books | Capital | Rate Base | Capitalization | Capitalization |
| $\begin{gathered} 08-31-15 \\ (1) \\ \hline \end{gathered}$ | Structure <br> (2) | Percentage <br> (3) | ( $\mathrm{Col} 1 \times \operatorname{Col} 3$ ) <br> (4) | (Col 18) <br> (5) |


| Adjusted Electric Capitalization $(\mathrm{Col} 4+\operatorname{Col} 5)$ (6) | Adjusted Capital Structure (7) | Annual Cost Rate (8) | Cost of Capital (Col $8 \times \mathrm{Col} 7$ ) (9) |
| :---: | :---: | :---: | :---: |
| \$ 136,505,540 | 6.99\% | 0.51\% | 0.04\% |
| 767,604,166 | 39.30\% | 3.67\% | 1.44\% |
| 1,049,087,257 | 53.71\% | 10.00\% | 5.37\% |
| \$ 1,953,196,963 | $\underline{ }$ |  | 6.85\% |

5. Weighted Cost of Capital Grossed up for Income Tax Effect \{ROR + (ROR - DR) x [TR / ( $1-\mathrm{TR}$ )] $\}$

| Electric Capitalization <br> (Col 4) <br> (10) | Capital Structure (11) | Trimble County Inventories (a) (Col $11 \times \operatorname{Col} 12$ Line 4) (12) |  | Investments in OVEC \& Other (Col $11 \times \operatorname{Col} 13$ Line 4) (13) |  | JDIC <br> (Col $11 \times$ Col 14 Line 4) <br> $(14)$ |  | Environmental <br> Compliance Rate Base (Col $11 \times$ Col 15 Line 4) $\qquad$ (15) |  | DSM <br> Rate Base <br> (Col $11 \times$ Col 16 Line 4$)$ <br> $(16)$ |  | Advanced Coal Investment Tax Credit (b) (Col $11 \times$ Col 17 Line 4) (17) |  | Total <br> Adjustments <br> To Capital (Sum of Col $12-\mathrm{Col} 17$ ) (18) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 198,429,233 | 6.99\% | \$ | $(347,855)$ | \$ | $(81,211)$ | \$ | 946,166 | \$ | $(63,694,018)$ | \$ | $(241,619)$ | \$ | 1,494,844 | \$ | (61,923,693) |
| 1,115,758,846 | 39.30\% |  | $(1,955,753)$ |  | $(456,596)$ |  | 5,319,643 |  | $(358,108,000)$ |  | $(1,358,460)$ |  | 8,404,486 |  | (348,154,680) |
| 1,524,898,653 | 53.71\% |  | (2,672,862) |  | $(624,014)$ |  | 7,270,179 |  | $(489,414,268)$ |  | $(1,856,562)$ |  | 11,486,131 |  | $(475,811,396)$ |
| \$ 2,839,086,732 | 100.000\% |  | $(4,976,470)$ |  | 1,161,821) | \$ | 13,535,988 | \$ | $(911,216,286)$ | \$ | $(3,456,641)$ | \$ | 21,385,461 | \$ | (885,889,769) |

ELECTRIC

1. Short Term Debt
2. Long Term Debt
3. Common Equity
. Total Capitalization
(a) Trimble County Inventories Materials and Supplies
Stores Expense
As of August 31, 2015


Coal
imestone
Fuel Oil
Emission Allowance
Total Trimble County Inventories
Multiplied by Disallowed Portion
ble County Inv. Disallowed

[^0]


[^1]a - Remarketing fee $=10$ basis points
b- Remarketing fee $=25$ basis points
c - Revolving Credit Facility fee $=12.5$ basis points



2 Includes setup fees for Wells Fargo and Bank of America amended July 28, 2014 with a five year term. (Royal Bank of Scotland written off July 2015.)
a - Remarketing fee $=10$ basis points
b - Remarketing fee $=25$ basis points

- Revolving Credit Facility fee $=12.5$ basis points


## Attachment in Excel

$$
\begin{gathered}
\text { The attachment(s) } \\
\text { provided in separate } \\
\text { file(s) in Excel format. }
\end{gathered}
$$

## LOUISVILLE GAS AND ELECTRIC COMPANY

# Response to Commission Staff's First Request for Information <br> To Appendix B of Commission's Order Dated December 21, 2015 and Amended Order Dated January 7, 2016 

Case No. 2015-00412

## CORRECTED ATTACHMENT

## Question No. 2

Witness: Derek A. Rahn

Q-2. Prepare a summary schedule showing the calculation of Total $\mathrm{E}(\mathrm{m})$, Net Retail $\mathrm{E}(\mathrm{m})$, and the surcharge factor for the expense months covered by the applicable billing period. Include the two expense months subsequent to the billing period in order to show the overand under-recovery adjustments for the months included in the billing period under review. The summary schedule is to incorporate all corrections and revisions to the monthly surcharge filings LG\&E has submitted during the billing period under review. Include all supporting calculations and documentation for any such additional over- or underrecovery. Provide all exhibits and schedules of your response in Excel spreadsheet format, with formulas intact and unprotected and all rows and columns accessible.

A-2. See the attachment provided in Excel format. For the period under review, LG\&E experienced a net over-recovery of $\$ 1,702,207$.




Louisville Gas \& Electric Company
Reconciliation of Combined Over/(Under) Recovery
Summary Schedule for Expense Months March 2015 through August 2015

CORRECTED Attachment to Response to Question No. 2
Page 3 of 3
CORRECTED Attachment to Response to Question No. 2
Page 3 of 3

## OVER/(UNDER) RECONCILIATION

Combined Over/(Under) Recovery \$ 1,702,207
Due to Change in ROR in Current 6-month Period \$ $(909,789)$
Use of 12 Month Average Revenues \$ 2,611,996

| Subtotal | $\$$ | $1,702,207$ |
| ---: | ---: | ---: |
| Unreconciled Difference | $\$$ | 0 |

## Attachment in Excel

$$
\begin{gathered}
\text { The attachment(s) } \\
\text { provided in separate } \\
\text { file(s) in Excel format. }
\end{gathered}
$$

## LOUISVILLE GAS AND ELECTRIC COMPANY

# Response to Commission Staff's First Request for Information <br> To Appendix B of Commission's Order Dated December 21, 2015 and Amended Order Dated January 7, 2016 

Case No. 2015-00412

## CORRECTED ATTACHMENT

Question No. 3

## Witness: Christopher M. Garrett

Q-3. Provide the calculations, assumptions, work papers, and other supporting documents used to determine the amounts LG\&E has reported during each billing period under review for Pollution Control Deferred Income Taxes. Provide all exhibits and schedules of your response in Excel spreadsheet format, with formulas intact and unprotected and all rows and columns accessible.

A-3. Please see the attachment for the calculation of Deferred Income Taxes and the balance of Accumulated Deferred Income Taxes reported each month of the review period.

LG\&E calculates Deferred Income Taxes as the taxable portion of the difference between book depreciation, using straight line depreciation, and tax depreciation, generally using 20 year MACRS accelerated depreciation, bonus depreciation or 5 or 7 year rapid amortization. Accelerated depreciation results in a temporary tax savings to the Company and the Accumulated Deferred Tax balance reflects the value of those temporary savings as a reduction to environmental rate base.

## Louisville Gas and Electric Company

Deferred Tax Calculations
Environmental Compliance Plans, by Approved Project
2009 - Plan
Project 23 - Trimble County Ash Treatment Basis (BAP/GSP)

|  |  |  |  |  |  |  |  |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month | Plant Balance | Book <br> Depreciation | Tax <br> Depreciation | Temporary <br> Difference | Income Tax <br> Rate | Accumulated <br> Deferred <br> Taxes | Deferred <br> Taxes on <br> Retirements |
| Beg Balance |  |  |  |  |  |  | 634,642 |
| Mar-15 | $9,599,354$ | 19,647 | 45,709 | 26,062 | $38.9000 \%$ | 10,138 | 644,780 |
| Apr-15 | $9,599,354$ | 19,647 | 45,706 | 26,059 | $38.9000 \%$ | 10,137 | 654,917 |
| May-15 | $9,599,354$ | 19,647 | 45,708 | 26,061 | $38.9000 \%$ | 10,138 | 665,055 |
| Jun-15 | $9,599,354$ | 19,647 | 45,707 | 26,060 | $38.9000 \%$ | 10,137 | 675,192 |
| Jul-15 | $9,599,354$ | 19,647 | 45,710 | 26,063 | $38.9000 \%$ | 10,139 | 685,330 |
| Aug-15 | $9,599,354$ | 19,647 | 45,706 | 26,059 | $38.9000 \%$ | 10,137 | 695,467 |

# Attachment to Response to Question No. 3 

Page 2 of 4
Garrett

## Louisville Gas and Electric Company <br> Deferred Tax Calculations <br> Environmental Compliance Plans, by Approved Project

2009 - Plan
Project 32 - Trimble County CCP Storage (Landfill - Phase I)

| Month | Plant Balance | Book Depreciation | Tax Depreciation | Temporary Difference | Income Tax <br> Rate | Deferred Tax | Accumulated Deferred Taxes | Deferred <br> Taxes on Retirements |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beg Balance |  |  |  |  |  |  |  |  |
| Mar-15 | 4,067,717 | 4,152 | 187,650 | 183,498 | 38.9000\% | 71,381 | 71,381 |  |
| Apr-15 | 4,067,717 | 8,304 | 191,800 | 183,496 | 38.9000\% | 71,380 | 142,761 |  |
| May-15 | 4,067,717 | 8,304 | 191,802 | 183,498 | 38.9000\% | 71,381 | 214,142 |  |
| Jun-15 | 4,067,717 | 8,304 | 191,802 | 183,498 | 38.9000\% | 71,381 | 285,523 |  |
| Jul-15 | 4,067,717 | 8,304 | 191,804 | 183,500 | 38.9000\% | 71,382 | 356,904 |  |
| Aug-15 | 4,067,717 | 8,304 | 191,800 | 183,496 | 38.9000\% | 71,380 | 428,284 | - |

Due to Bonus Depreciation for tax purposes taken on certain components of Project 24, the deferred tax calculation for this project is computed separately for Federal and State purposes. Specifically, for Federal taxes, certain assets received $50 \%$ bonus depreciation, which reduces the Federal tax basis to $50 \%$ of the plant balance. A sample calculation of deferred taxes for Aug 2015 is shown below:

Federal Basis Book Depr. Federal Tax DıFed. DifferencıFed Tax Rate Fed Def Tax
2,033,858 7,889 211,013 203,124 35.0000\% 71,093

State Basis Book Depr. State Tax Dep St. Difference State Tax Rate St Def Tax $\begin{array}{llllll}4,067,717 & 7,889 & 15,254 & 7,365 & 6.0000 \% & 442\end{array}$ St. Offset for Fed Taxes not Owed (155)

Total Deferred Tax
71,381

# CORRECTED Attachment to Response to Question No. 3 <br> Page 3 of 4 Garrett <br> <br> Louisville Gas and Electric Company <br> <br> Louisville Gas and Electric Company Deferred Tax Calculations Deferred Tax Calculations <br> <br> Environmental Compliance Plans, by Approved Project 

 <br> <br> Environmental Compliance Plans, by Approved Project}

2009 - Plan
Project 25 -Beneficial Reuse

| Month | Plant Balance | Book Depreciation | Tax Depreciation | Temporary Difference | Income Tax Rate | Deferred Tax | Accumulated Deferred Taxes | Deferred <br> Taxes on Retirements |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beg Balance |  |  |  |  |  |  | 897,299 |  |
| Mar-15 | 4,556,730 | 9,291 | 13,023 | 3,732 | 38.9000\% | 1,452 | 898,751 | 13,242 |
| Apr-15 | 4,556,730 | 9,078 | 12,810 | 3,732 | 38.9000\% | 1,452 | 900,203 | 13,242 |
| May-15 | 4,556,730 | 9,078 | 12,809 | 3,731 | 38.9000\% | 1,451 | 901,654 | 13,242 |
| Jun-15 | 4,556,730 | 9,078 | 12,810 | 3,732 | 38.9000\% | 1,452 | 903,106 | 13,242 |
| Jul-15 | 4,556,730 | 9,078 | 12,812 | 3,734 | 38.9000\% | 1,453 | 904,558 | - |
| Aug-15 | 4,556,730 | 9,078 | 12,810 | 3,732 | 38.9000\% | 1,452 | 906,010 | - |

Due to Bonus Depreciation for tax purposes taken on certain components of Project 25, the deferred tax calculation for this project is computed separately for Federal and State purposes. Specifically, for Federal taxes, certain assets received 50\% bonus depreciation, which reduces the Federal tax basis to $50 \%$ of the plant balance. A sample calculation of deferred taxes for Aug 2015 is shown below:

| Federal Basis | Book Depr. | Federal Tax Dı Fed. Differencı Fed Tax Rate | Fed Def Tax |  |
| :---: | :---: | :---: | :---: | :---: |
| $2,318,136$ | 9,099 | 11,634 | 2,535 | $35.0000 \%$ |
| State Basis | Book Depr. | State Tax Dep | St. Difference | State Tax Rate | St Def Tax 887

Total Deferred Tax
1,452

## Louisville Gas and Electric Company <br> Deferred Tax Calculations <br> Environmental Compliance Plans, by Approved Project

2011 - Plan
Project 26 - Mill Creek Station Air Compliance

| Month | Plant Balance | $\begin{array}{c}\text { Book } \\ \text { Depreciation }\end{array}$ | $\begin{array}{c}\text { Tax } \\ \text { Depreciation }\end{array}$ | $\begin{array}{c}\text { Temporary } \\ \text { Difference }\end{array}$ | $\begin{array}{c}\text { Income Tax } \\ \text { Rate }\end{array}$ | Deferred Tax | $\begin{array}{c}\text { Accumulated } \\ \text { Deferred } \\ \text { Taxes }\end{array}$ | $\begin{array}{c}\text { Deferred } \\ \text { Taxes on } \\ \text { Retirements }\end{array}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Beg Balance |  |  |  |  |  |  |  | $57,957,313$ |$]$

Due to Bonus Depreciation for tax purposes taken on certain components of Project 26, the deferred tax calculation for this project is computed separately for Federal and State purposes. Specifically, for Federal taxes, certain assets received $50 \%$ bonus depreciation, which reduces the Federal tax basis to $50 \%$ of the plant balance. A sample calculation of deferred taxes for Aug 2015 is shown below:

| Federal Basis | Book Depr. | Federal Tax D | Fed. Differencı Fed | Tax Rate | Fed Def Tax |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 982,514 | 1,220,420 | 5,057 | $(1,215,363)$ | 35.0000\% | $(425,377)$ |
| 9,378 |  | 150 | 150 | 35.0000\% | 53 |
| 2,975,818 |  | 16,558 | 16,558 | 35.0000\% | 5,795 |
| $(5,725)$ |  | (34) | (34) | 35.0000\% | (12) |
| 162,474,132 |  | 1,551,496 | 1,551,496 | 35.0000\% | 543,024 |
| 3,354,199 |  | 20,178 | 20,178 | 35.0000\% | 7,062 |
| 13,527,934 |  | 119,175 | 119,175 | 35.0000\% | 41,711 |
| 129,731,687 |  | 16,216,461 | 16,216,461 | 35.0000\% | 5,675,761 |
| 228,313,880 |  | 2,711,227 | 2,711,227 | 35.0000\% | 948,929 |
| State Basis | Book Depr. | State Tax Dep | St. Difference State | Tax Rate | St Def Tax |
| 1,965,028 | 1,220,420 | 10,115 | $(1,210,305)$ | 6.0000\% | $(72,618)$ |
| 18,756 |  | 300 | 300 | 6.0000\% | 18 |
| 3,107,474 |  | 17,290 | 17,290 | 6.0000\% | 1,037 |
| $(5,725)$ |  | (34) | (34) | 6.0000\% | (2) |
| 319,795,834 |  | 3,053,791 | 3,053,791 | 6.0000\% | 183,227 |
| 3,354,199 |  | 20,178 | 20,178 | 6.0000\% | 1,211 |
| 13,527,934 |  | 119,175 | 119,175 | 6.0000\% | 7,151 |
| 358,045,567 |  | 4,251,791 | 4,251,791 | 6.0000\% | 255,107 |
|  |  |  |  |  | St. Offset for Fed Taxes not Owed $(131,296)$ |
|  |  |  |  |  | $\begin{aligned} & \text { Total Deferred Tax } \\ & 7,040,782 \end{aligned}$ |

## Attachment in Excel

$$
\begin{gathered}
\text { The attachment(s) } \\
\text { provided in separate } \\
\text { file(s) in Excel format. }
\end{gathered}
$$

# LOUISVILLE GAS AND ELECTRIC COMPANY 

# Response to Commission Staff's First Request for Information <br> To Appendix B of Commission's Order Dated December 21, 2015 <br> and Amended Order Dated January 7, 2016 

Case No. 2015-00412
Question No. 4
Witness: Christopher M. Garrett

Q-4. Refer to ES Form 2.50, Pollution Control - Operations \& Maintenance Expenses, for the March 2015 through August 2015 expense months. For each expense account number listed on this schedule, explain the reason(s) for any change in the expense levels from month to month if that change is greater than plus or minus 10 percent.

A-4. Attached please find a schedule showing the changes in the operations and maintenance expense accounts for March 2015 through August 2015 expense months. The changes in the expense levels are reasonable and generally occurred as a part of routine plant operations and maintenance.

2011 Plan
The variances in scrubber operations expenses, account 502056, are driven by the purchase and delivery timing of the raw consumable material as well as variations in generation and coal quality. Effective July 2015, these expenses were included in base rates resulting in their removal from the ECR mechanism.

Fluctuations in scrubber maintenance expenses, account 512055, are the result of normal system maintenance of the new scrubbers at Mill Creek Units 1, 2 and 4 (MC1, MC2 and MC4). MC1 and MC2 were placed in service in July 2015.

Fluctuations in sorbent injection operations expenses, account 506159, are the result of ongoing operation of Trimble County Unit 1 (TC1).

Fluctuations in sorbent injection reactant (hydrated lime) expenses, account 506152, are the result of on-going operation of TC1 and the new operation of the hydrated lime system at Mill Creek. The variances are driven by the purchase and delivery timing of the raw consumable material as well as variations in generation and coal quality.

Fluctuations in baghouse operations during July and August 2015, account 506156, are the result of accounting corrections.

Fluctuations in baghouse maintenance expense, account 512156, are the result of normal system maintenance on baghouses for MC1, MC2 and MC4.

Fluctuation in activated carbon expenses, account 506151, are the result of accounting corrections.

## LOUISVILLE GAS AND ELECTRIC COMPANY <br> ENVIRONMENTAL SURCHARGE REPORT

Pollution Control - Operations \& Maintenance Expenses

| O\&M Expense Account | Mar-15 | Apr-15 | \% Change from Prior Period | May-15 | \% Change from Prior Period | Jun-15 | \% Change from Prior Period | Jul-15 | \% Change from Prior Period | Aug-15 | \% Change from Prior Period |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2009 Plan |  |  |  |  |  |  |  |  |  |  |  |
| 502013 ECR Landfill Operations | - | - | 0\% | - | 0\% | - | 0\% | - | 0\% | - | 0\% |
| 512107 ECR Landfill Maintenance | - | - | 0\% | - | 0\% | - | 0\% | - | 0\% | - | 0\% |
| Adjustment for CCP Disposal in Base Rates (ES Form 2.51) | - | - | 0\% | - | 0\% | - | 0\% | - | 0\% | - | 0\% |
| Total 2009 Plan O\&M Expenses | - | - | 0\% | - | 0\% | - | 0\% | - | 0\% | - | 0\% |
| 2011 Plan |  |  |  |  |  |  |  |  |  |  |  |
| 502056 ECR Scrubber Operations | 120,393.09 | 151,788.09 | 26\% | 121,606.78 | -20\% | 222,841.81 | 83\% | - | -100\% | - | 0\% |
| 512055 ECR Scrubber Maintenance | 89,241.81 | 21,642.55 | -76\% | 31,383.89 | 45\% | 21,596.09 | -31\% | 49,903.15 | 131\% | 47,501.94 | -5\% |
| 506159 ECR Sorbent Injection Operation | 12,493.96 | 7,843.66 | -37\% | 22,840.27 | 191\% | 8,988.40 | -61\% | 15,810.23 | 76\% | 8,812.98 | -44\% |
| 506152 ECR Sorbent Reactant - Reagent Only | 126,929.65 | 171,700.03 | 35\% | 198,122.02 | 15\% | 271,868.22 | 37\% | 255,782.60 | -6\% | 300,801.57 | 18\% |
| 512152 ECR Sorbent Injection Maintenance | 25,451.39 | 30,029.67 | 18\% | 44,769.78 | 49\% | 44,490.05 | -1\% | 44,356.51 | 0\% | 52,746.22 | 19\% |
| 506156 ECR Baghouse Operations | - | - | 0\% | - | 0\% | - | 0\% | 20,331.23 | 100\% | $(26,269.36)$ | -229\% |
| 512156 ECR Baghouse Maintenance | 11,284.23 | 4,977.44 | -56\% | 6,327.80 | 27\% | 18,695.38 | 195\% | 10,350.50 | -45\% | 594.43 | -94\% |
| 506151 ECR Activated Carbon | - | - | 0\% | 29,256.00 | 100\% | - | -100\% | (29,256.00) | -100\% | - | 100\% |
| Adjustment for Base Rates Baseline Amounts | (202,659.68) | $(202,659.68)$ | 0\% | (202,659.68) | 0\% | (202,659.68) | 0\% | - | 100\% | - | 0\% |
| Total 2011 Plan O\&M Expenses | 183,134.45 | 185,321.76 | 1\% | 251,646.86 | 36\% | 385,820.27 | 53\% | 367,278.22 | -5\% | 384,187.78 | 5\% |

## Attachment in Excel

$$
\begin{gathered}
\text { The attachment(s) } \\
\text { provided in separate } \\
\text { file(s) in Excel format. }
\end{gathered}
$$

## LOUISVILLE GAS AND ELECTRIC COMPANY

# Response to Commission Staff's First Request for Information To Appendix B of Commission's Order Dated December 21, 2015 and Amended Order Dated January 7, 2016 

Case No. 2015-00412
Question No. 5

## Witness: Christopher M. Garrett

Q-5. In Case No. 2000-00386, ${ }^{6}$ the Commission ordered LG\&E's cost of debt and preferred stock to be reviewed and reestablished during the 6-month review cases. Provide the following information as of August 31, 2015:
a. The outstanding balances for long-term debt, short-term debt, preferred stock, and common equity. Provide this information on total company and Kentucky jurisdictional bases.
b. The blended interest rates for long-term debt, short-term debt, and preferred stock. Include all supporting calculations showing how these blended interest rates were determined. If applicable, provide the blended interest rates on total company and Kentucky jurisdictional bases. For each outstanding debt listed, indicate whether the interest rate is fixed or variable.
c. LG\&E's calculation of its weighted average cost of capital for environmental surcharge purposes.
d. Provide all exhibits and schedules of your response in Excel spreadsheet format, with formulas intact and unprotected and all rows and columns accessible.

A-5. a-d. Please see the attachments being provided in Excel format for the period ended August 31, 2015 under review. There was no preferred stock outstanding as of August 31, 2015; therefore, it is not listed in the attached schedules.

LG\&E is utilizing a return on equity of $10.00 \%$ as agreed to for all ECR Plans and approved by the Commission in its June 30, 2015 Order in Case No. 2014-00372.

LG\&E recommends the continued use of an effective tax rate of $38.6660 \%$ in the grossup revenue factor used in the rate of return calculation for the period ended August 31, 2015. As discussed in Question No. 1, LG\&E will incur a tax loss in 2015 as a result of bonus depreciation and will be unable to take the Internal Revenue Code §199 manufacturing tax deduction.

[^2]
## LOUISVILLE GAS AND ELECTRIC COMPANY

Adjusted Electric Rate of Return on Common Equity - ECR Plans As of August 31, 2015

|  |  | $\begin{gathered} \text { Per Books } \\ 08-31-15 \\ (1) \\ \hline \end{gathered}$ | Capital Structure (2) | Electric <br> Rate Base <br> Percentage <br> (3) |  | Electric Capitalization <br> (Col $1 \times \operatorname{Col} 3)$ <br> (4) |  | Adjustments to Capitalization (Col 18) (5) |  | Adjusted Electric Capitalization (Col $4+\mathrm{Col}$ 5) (6) | Adjusted Capital Structure (7) | Annual <br> Cost <br> Rate <br> (8) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELECTRIC |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Short Term Debt | \$ | 282,182,026 | 8.09\% | 82.350\% | \$ | 232,376,898 | \$ | $(71,668,482)$ | \$ | 160,708,416 | 8.09\% | 0.41\% | 0.03\% |
| 2. Long Term Debt |  | 1,354,969,776 | 38.84\% | 82.350\% |  | 1,115,817,610 |  | $(344,079,585)$ |  | 771,738,025 | 38.84\% | 3.65\% | 1.42\% |
| 3. Common Equity |  | 1,851,728,783 | 53.07\% | 82.350\% |  | 1,524,898,653 |  | $(470,141,702)$ |  | 1,054,756,951 | 53.07\% | 10.00\% | 5.31\% |
| 4. Total Capitalization | \$ | 3,488,880,584 | 100.000\% |  | \$ | 2,873,093,161 | \$ | (885,889,769) | \$ | 1,987,203,392 | 100.000\% |  | 6.76\% |

5. Weighted Cost of Capital Grossed up for Income Tax Effect \{ROR + (ROR - DR $) \times[T R /(1-T R)]\}$

## ELECTRIC

1. Short Term Debt
2. Long Term Debt
3. Common Equity
4. Total Capitalization


| Trimble County Inventories | As of August 31, 2015 |  |  |
| :---: | :---: | :---: | :---: |
| Materials and Supplies |  | \$ | 10,039,359 |
| Stores Expense |  |  | 1,777,578 |
| Coal |  |  | 7,794,582 |
| Limestone |  |  | 163,594 |
| Fuel Oil |  |  | 130,719 |
| Emission Allowances |  |  | 47 |
| Total Trimble County Inventories |  | \$ | 19,905,879 |
| Multiplied by Disallowed Portion |  |  | 25.00\% |
| Trimble County Inv. Disallowed |  |  | 4,976,470 |

(b) Reflects Investment Tax Credit treatment per Case No. 2007-00179.

Attachment to Response to Question No. 5 (a-d)

LOUISVILLE GAS AND ELECTRIC COMPANY
Garrett



2 Includes setup fees for Wells Fargo and Bank of America amended July 28, 2014 with a five year term. (Royal Bank of Scotland written off July 2015.)
a Remarketing fee $=10$ basis points
$b$ - Remarketing fee $=25$ basis points
c - Revolving Credit Facility fee $=12.5$ basis points

ECR - Gross-up Revenue Factor \& Composite Income Tax Calculation 2015
(1) Assume pre-tax income of

State income tax (see below)

Taxable income for Federal income tax before production credit
a. Production Rate
b. Allocation to Production Income
c. Allocated Production Rate (a x b)

Less: Production tax credit

Taxable income for Federal income tax

Federal income tax

Total State and Federal income taxes

Gross-up Revenue Factor

Therefore, the composite rate is:
Federal
State
Total

State Income Tax Calculation
Assume pre-tax income of

Less: Production tax credit @ 6\%

Taxable income for State income tax

State Tax Rate

State Income Tax

2015 State
Production Credit W/ 6\% 2015 State Tax Rate Included \$ 100.0000
5.6400

|  | 5.6400 | (40) |
| :---: | :---: | :---: |
|  | 94.3600 | (1)-(3) |
|  | 0\% |  |
|  | 100\% |  |
|  | 0.00\% |  |
|  | - | $(6) *(9)$ |
|  | 94.3600 | (6)-(11) |
|  | 33.0260 | (13)*35\% |
| \$ | 38.6660 | (3)+(15) |
| \$ | 61.3340 | 100-(18) |

(1)-(3)
(6)*(9)
(6)-(11)
(13)*35\%

100-(18)
(32)-(34)

|  | $6.0000 \%$ |  |
| :--- | :--- | :--- |
|  | 5.6400 | $(36) *(38)$ |

## Attachment in Excel

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\begin{gathered}
\text { The attachment(s) } \\
\text { provided in separate } \\
\text { file(s) in Excel format. }
\end{gathered}
$$

## LOUISVILLE GAS AND ELECTRIC COMPANY

# Response to Commission Staff's First Request for Information <br> To Appendix B of Commission's Order Dated December 21, 2015 and Amended Order Dated January 7, 2016 

Case No. 2015-00412

## CORRECTED ATTACHMENT

Question No. 6
Witness: Derek A. Rahn

Q-6. Provide the actual average residential customer's usage. Based on this usage amount, provide the dollar impact the over/under recovery will have on the average residential customer's bill for the requested recovery period. Provide all supporting calculations and documentation in Excel spreadsheet format, with formulas intact and unprotected and all rows and columns accessible.

A-6. See the attachment being provided in Excel format.
The actual average residential customer’s usage for the 12-months ending November 30, 2015 is 976 kWh per month. Actual average monthly usage for residential customers will vary from month to month depending upon the time period of the year.

Based upon distributing the over-recovered position of $\$ 1,702,207$ over three months ( $\$ 567,402$ per month for two months and $\$ 567,403$ for one month), the ECR billing factor will be lower by approximately $0.67 \%$ per month. For a residential customer using 976 kWh per month, the impact of the adjusted ECR billing factor would be a decrease of approximately $\$ 0.62$ per month for three months, using rates and adjustment clause factors in effect for the November 2015 billing month.

| INPUTS: |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Expense Month for calculations |  | Nov-15 |
| ECR Monthly Filing - Expense Month for calculations |  |  |  |
| Form 1.10-Line 13 | Adjusted Net Juris E(M) as filed | \$ | 8,200,454 |
| Form 1.10-Line 14 | Group 1 Rev as \% 12-mo Total Rev |  | 41.80\% |
| Form 1.10-Line 15 | Group 1 E(m) | \$ | 3,427,790 |
| Form 1.10-Line 16 | Group 1 12-month avg revenue | \$ | 35,214,049 |
| Form 1.10-Line 17 | Billing Factor filed |  | 9.73\% |
| Financial Reports - Year Ended Current Month |  |  | Nov-15 |
| Page 30 | Residential Sales (kWh) |  | 4,136,956,155 |
| Page 18 | Residential Avg Customers Year Ended |  | 353,171 |
|  | times 12 for 12-month number |  | 4,238,052 |
| Response to DR Q2 | Adjustment for (Over)/Under Collection |  | $(1,702,207)$ |
|  | Number of Months to collect/distribute |  | 3 |
|  | Monthly Adj for (Over)/Under Collection |  | $(567,402)$ |
|  | Position for Review Period Collection |  | OVER |
| Billing Factors |  |  |  |
| Tariff | Basic Service Charge |  | 10.75 |
| Tariff | Base Rate |  | 0.08082 |
| Monthly Filing | FAC for Nov-15 |  | (0.00022) |
| Tariff | DSM |  | 0.00356 |

## Residential Bill Impact Calculations

| Adjusted Net Juris E(M) as filed Adjustment for (Over)/Under Collection | $\begin{array}{rr} \$ & 8,200,454 \\ & (567,402) \\ \hline \end{array}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Adjusted Net Juris E(M) as adjusted for (Over)/Under Collection | \$ 7,633,052 |  |  |  |
| Group 1 Rev as \% 12-mo Total Rev | 41.80\% |  |  |  |
| Group $1 \mathrm{E}(\mathrm{m})$ as filed | \$ 3,427,790 |  |  |  |
| Group $1 \mathrm{E}(\mathrm{m})$ as adjusted | \$ 3,190,616 |  |  |  |
| Group 1 12-month revenue | \$ 35,214,049 |  |  |  |
| Billing Factor as filed | 9.73\% |  |  |  |
| Billing Factor as adjusted | 9.06\% |  |  |  |
| Impact to billing factor | -0.67\% |  |  |  |
| Bill Impact, Average Residential Customer |  |  |  | Average Residential Usage 976 kWh |
| Basic Service Charge | 10.75 | \$ | 10.75 |  |
| Base Rate | 0.08082 |  | 78.88 |  |
| FAC for Nov-15 | (0.00022) |  | (0.21) |  |
| DSM | 0.00356 |  | 3.47 |  |
|  |  | \$ | 92.89 |  |
| ECR (as billed) | 9.73\% | \$ | 9.04 |  |
| ECR (as adjusted) | 9.06\% | \$ | 8.42 |  |
| Change in ECR | -0.67\% | \$ | (0.62) |  |
|  | negative number $=$ over collection $=$ distribution <br> positive number $=$ under collection $=$ recovery |  |  |  |

## Attachment in Excel

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\begin{gathered}
\text { The attachment(s) } \\
\text { provided in separate } \\
\text { file(s) in Excel format. }
\end{gathered}
$$


[^0]:    (c) Average daily balance per Settlement Agreement in Case No. 2011-00162.

[^1]:    Call premium and debt expense is being amortized in accordance with ASC 980, Regulated Operations.
    Remarketed bonds, issued at long term fixed rate.
    4 Remarketed bonds, issued at a variable rate.
    5 Includes setup fees for Wells Fargo, Bank of America and Royal Bank of Scotland amended July 28, 2019 with a five year term.

[^2]:    ${ }^{6}$ Case No. 2000-00386, Louisville Gas and Electric Company (Ky. PSC Apr. 18, 2001).

