

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

<b>AN EXAMINATION BY THE PUBLIC SERVICE</b>	)	
<b>COMMISSION OF THE ENVIRONMENTAL</b>	)	
<b>SURCHARGE MECHANISM OF KENTUCKY</b>	)	<b>CASE NO.</b>
<b>UTILITIES COMPANY FOR THE SIX-MONTH</b>	)	<b>2015-00020</b>
<b>BILLING PERIODS ENDING APRIL 30, 2014</b>	)	
<b>AND OCTOBER 31, 2014</b>	)	

**RESPONSE OF**  
**KENTUCKY UTILITIES COMPANY**  
**TO**  
**COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION IN**  
**APPENDIX B OF COMMISSION'S ORDER**  
**DATED JANUARY 20, 2015**  
**AND**  
**AMENDED ORDER DATED FEBRUARY 11, 2015**

**FILED: February 16, 2015**



**KENTUCKY UTILITIES COMPANY**

**Response to Commission Staff's First Request for Information  
in Appendix B of Commission's Order Dated January 20, 2015  
and Amended Order Dated February 11, 2015**

**Case No. 2015-00020**

**Question No. 1**

**Witness: Robert M. Conroy / Christopher M. Garrett**

- Q-1. Concerning the rate of return on the two amendments to the environmental compliance plan, for the period under review, calculate any true-up adjustment needed to recognize changes in KU's cost of debt, preferred stock, accounts receivable financing (if applicable), or changes in KU's jurisdictional capital structure for the billing period ended February 28, 2014, and the billing period ended August 31, 2014. 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 under-recovery 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.

KU 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 December 31, 2013 to true-up the months in the review period utilizing the 2013 gross-up revenue factor that includes the Section 199 deduction as shown on Page 4. Page 5 provides the adjusted weighted average cost of capital for the expense period ending February 28, 2014 using the 2014 gross-up revenue factor reflecting the loss of the Section 199 deduction due to the election to take the bonus depreciation deduction in 2014 as shown on Page 6. Page 7 provides the weighted average cost of capital for the expense period ending August 31, 2014 also using the 2014 gross-up revenue factor in the calculations. KU 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-

00161. Also see Mr. Garrett's testimony for additional information regarding the gross-up revenue factors.

KU did not engage in accounts receivable financing or have any preferred stock outstanding during the period under review.

# Attachment in Excel

The attachment(s)  
provided in separate  
file(s) in Excel format.

**KENTUCKY UTILITIES COMPANY**

**Response to Commission Staff's First Request for Information  
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and Amended Order Dated February 11, 2015**

**Case No. 2015-00020**

**Question No. 2**

**Witness: Robert M. Conroy**

- Q-2. Prepare a summary schedule showing the calculation of Total E(m), Net Retail E(m), and the surcharge factor for the expense months covered by the applicable billing period. Include the expense months for the two expense months subsequent to the billing period in order to show the over- and under-recovery adjustments for the months included for the billing period under review. The summary schedule is to incorporate all corrections and revisions to the monthly surcharge filings KU has submitted during the billing period under review. Include a calculation of any additional over- or under-recovery amount KU believes needs to be recognized for the review period. Include all supporting calculations and documentation for any such additional over- or under-recovery. 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 periods under review, KU experienced a net over-recovery of \$1,478,110.

# Attachment in Excel

The attachment(s)  
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**KENTUCKY UTILITIES COMPANY**

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**Case No. 2015-00020**

**Question No. 3**

**Witness: Christopher M. Garrett**

- Q-3. Provide the calculations, assumptions, workpapers, and other supporting documents used to determine the amounts KU 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. KU 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.

See the attachment being provided in Excel format for the calculation of Deferred Income Taxes and the balance of Accumulated Deferred Income Taxes reported each month of the review periods.



# Attachment in Excel

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**KENTUCKY UTILITIES COMPANY**

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**Question No. 4**

**Witness: Christopher M. Garrett**

- Q-4. Refer to ES Form 2.50, Pollution Control —Operations & Maintenance Expenses, for the September 2013 through August 2014 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 September 2013 through August 2014 expense months. The changes in the expense levels are reasonable and generally occurred as a part of routine plant operations and maintenance or normal annual testing expenses.

2009 Plan

Monthly variances in the NO<sub>x</sub> operation expenses, accounts 506154 and 506155 reflect normal SCR operations at E. W. Brown Unit 3. The variances for account 506154 is driven by the purchase and delivery timing of the raw consumable material (ammonia), as well as variations in generation and coal quality. The unit was offline for planned outages in October 2013 and April 2014.

Fluctuations in the NO<sub>x</sub> maintenance expenses, account 512151, are the result of routine monthly maintenance on the SCR at E.W. Brown Unit 3. The increases in December 2013 and Jan 2014 are the result of corrective sootblower compressor maintenance. The increases in April, May and June 2014 are the result of a variety of maintenance activities; items of note are: Annual preventive maintenance to and replacement of sootblowers, corrective maintenance on flow control, ammonia control and sootblower air compressor valves, yearly inspection of catalyst and reactor boxes and EW Brown Unit 3 SCR Catalyst testing.

2011 Plan

Fluctuations in sorbent injection operation expenses, account 506159, are the result of on-going operation of Ghent and E.W. Brown Units. The increase in January and February 2014 is due to invoice timing and accruals.

Fluctuations in sorbent injection reactant (hydrated lime) expenses, account 506152, are the result of on-going operation of all Ghent and E.W. Brown Units. The variances are driven by the purchase and delivery timing of the raw consumable material as well as variations in generation and coal quality. Additionally, Ghent discontinued its use of Trona in April 2014 and went to the exclusive use of hydrated lime.

Fluctuations in sorbent injection maintenance expenses, account 512152, are the result of normal system maintenance and the timing of preventive maintenance performed. The increase in October 2013 is the result of preventive maintenance performed on a compressor at Ghent. In January 2014 the shaft in a rotary valve was replaced. In February 2014 the payment of a yearly air compressor service agreement was made, and in July 2014, annual preventive maintenance and emergency repairs to an air compressor and SO<sub>3</sub> outlets was performed.

**KENTUCKY UTILITIES COMPANY**  
**ENVIRONMENTAL SURCHARGE REPORT**

**Pollution Control - Operations & Maintenance Expenses**

O&M Expense Account	Sep-13	Oct-13	% Change from Prior Period	Nov-13	% Change from Prior Period	Dec-13	% Change from Prior Period	Jan-14	% Change from Prior Period	Feb-14	% Change from Prior Period
<b>2009 Plan</b>											
506154 - ECR NOx Operation -- Consumables	63,163.52	38,410.23	-39%	51,617.88	34%	64,043.44	24%	49,182.91	-23%	48,850.21	-1%
506155 - ECR NOx Operation -- Labor and Other	-	-	0%	-	0%	-	0%	-	0%	-	0%
512151 - ECR NOx Maintenance	9,558.14	8,985.09	-6%	8,595.39	-4%	17,091.37	99%	32,149.64	88%	11,708.29	-64%
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%
<b>Total 2009 Plan O&amp;M Expenses</b>	<b>72,721.66</b>	<b>47,395.32</b>	<b>-35%</b>	<b>60,213.27</b>	<b>27%</b>	<b>81,134.81</b>	<b>35%</b>	<b>81,332.55</b>	<b>0%</b>	<b>60,558.50</b>	<b>-26%</b>
<b>2011 Plan</b>											
506159 - ECR Sorbent Injection Operation	53,452.52	69,629.29	30%	60,249.15	-13%	60,382.81	0%	91,612.24	52%	74,097.97	-19%
506152 - ECR Sorbent Reactant - Reagent Only	827,035.13	753,997.73	-9%	971,409.01	29%	1,043,552.67	7%	1,082,612.93	4%	965,128.37	-11%
512152 - ECR Sorbent Injection Maintenance	15,130.08	26,016.44	72%	11,866.27	-54%	7,435.36	-37%	23,807.65	220%	21,590.40	-9%
506156 - ECR Baghouse Operations	-	-	0%	-	0%	-	0%	-	0%	-	0%
512156 - ECR Baghouse Maintenance	-	-	0%	-	0%	-	0%	-	0%	-	0%
506151 - ECR Activated Carbon	-	-	0%	-	0%	-	0%	-	0%	-	0%
<b>Total 2011 Plan O&amp;M Expenses</b>	<b>895,617.73</b>	<b>849,643.46</b>	<b>-5%</b>	<b>1,043,524.43</b>	<b>23%</b>	<b>1,111,370.84</b>	<b>7%</b>	<b>1,198,032.82</b>	<b>8%</b>	<b>1,060,816.74</b>	<b>-11%</b>

**KENTUCKY UTILITIES COMPANY  
ENVIRONMENTAL SURCHARGE REPORT**

**Pollution Control - Operations & Maintenance Expenses**

O&M Expense Account	Mar-14	Apr-14	% Change from Prior Period	May-14	% Change from Prior Period	Jun-14	% Change from Prior Period	Jul-14	% Change from Prior Period	Aug-14	% Change from Prior Period
<b>2009 Plan</b>											
506154 - ECR NOx Operation -- Consumables	48,020.09	36,492.62	-24%	58,790.52	61%	58,378.54	-1%	55,700.59	-5%	54,509.89	-2%
506155 - ECR NOx Operation -- Labor and Other	-	-	0%	-	0%	-	0%	-	0%	-	0%
512151 - ECR NOx Maintenance	27,631.51	90,975.46	229%	92,631.52	2%	102,461.67	11%	21,012.23	-79%	14,806.50	-30%
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%
<b>Total 2009 Plan O&amp;M Expenses</b>	<b>75,651.60</b>	<b>127,468.08</b>	<b>68%</b>	<b>151,422.04</b>	<b>19%</b>	<b>160,840.21</b>	<b>6%</b>	<b>76,712.82</b>	<b>-52%</b>	<b>69,316.39</b>	<b>-10%</b>
<b>2011 Plan</b>											
506159 - ECR Sorbent Injection Operation	75,386.03	75,727.97	0%	82,820.10	9%	73,513.37	-11%	89,120.37	21%	86,806.22	-3%
506152 - ECR Sorbent Reactant - Reagent Only	1,062,567.81	750,055.12	-29%	840,988.48	12%	748,826.08	-11%	885,282.04	18%	874,162.77	-1%
512152 - ECR Sorbent Injection Maintenance	33,622.49	10,664.83	-68%	24,232.04	127%	17,933.17	-26%	81,832.28	356%	15,428.69	-81%
506156 - ECR Baghouse Operations	-	-	0%	-	0%	-	0%	-	0%	-	0%
512156 - ECR Baghouse Maintenance	-	-	0%	-	0%	-	0%	-	0%	-	0%
506151 - ECR Activated Carbon	-	-	0%	-	0%	-	0%	51,069.20	0%	-	-100%
<b>Total 2011 Plan O&amp;M Expenses</b>	<b>1,171,576.33</b>	<b>836,447.92</b>	<b>-29%</b>	<b>948,040.62</b>	<b>13%</b>	<b>840,272.62</b>	<b>-11%</b>	<b>1,107,303.89</b>	<b>32%</b>	<b>976,397.68</b>	<b>-12%</b>

**KENTUCKY UTILITIES COMPANY**

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**Case No. 2015-00020**

**Question No. 5**

**Witness: Christopher M. Garrett**

- Q-5. In Case No. 2000-00439, the Commission ordered that KU's cost of debt and preferred stock would be reviewed and re-established during the six-month review case. Provide the following information as of August 31, 2014, with all exhibits and schedules in Excel spreadsheet format, with formulas intact and unprotected and all rows and columns accessible:
- 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. KU's calculation of its weighted average cost of capital for environmental surcharge purposes.
- A-5. a-c. See the attachments being provided in Excel format for the periods ended August 31, 2014. There was no preferred stock outstanding as of August 31, 2014; therefore, it is not listed in the attached schedules. KU is utilizing a 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. 2012-00221.

For the period ended August 31, 2014, KU proposes utilizing a composite tax rate of 35.6937%, which is currently projected for the 2015 tax year. Also see Mr. Garrett's testimony for additional information regarding the gross-up revenue factor.

# Attachment in Excel

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**Case No. 2015-00020**

**Question No. 6**

**Witness: Robert M. Conroy**

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 December 31, 2014 is 1,247 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 \$1,478,110 over two months (\$739,055 per month), the ECR billing factor will be lower by approximately 0.61% per month. For a residential customer using 1,247 kWh per month the impact of the adjusted ECR billing factor would be a decrease of approximately \$0.65 per month, using rates and adjustment clause factors in effect for the December 2014 billing month.



# Attachment in Excel

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