1. Refer to the Direct Testimony of Dennis W. Goins, Ph.D. page 10, lines 14-17, which state, "[a] utility neither builds nor acquires capacity to serve interruptible load. As a result, the price of interruptible service should exclude fixed costs (both generation and bulk transmission) incurred to serve firm load." Explain why the price of interruptible service load should not include fixed generation and transmission costs given the limitation on the number of hours load can be interrupted.

RESPONSE:

Please see the direct testimony of Dr. Goins (Goins Direct) at 12:1 – 13:15 for a more complete explanation of why, as a basic principle, interruptible rates should exclude fixed production and bulk transmission costs. It is true that the KU and LGE interruptible service options limit the number of hours of interruption. Whether limiting the hours of interruption causes the utility to add capacity to serve interruptible load is an empirical question that is not addressed in any of KU’s and LG&E’s testimony and data responses that I have reviewed. What we know is that KU and LG&E exclude large industrial interruptible load from their capacity resource plans. (See Goins Direct at 9:20-24.) That is, KU and LG&E do not build capacity to serve CSR interruptible load.

Rates paid by KU’s and LG&E’s CSR customers (at the current CSR credit level) already recover a significant level of demand-related fixed costs. For example, the current CSR credit offsets only about half of the fully-loaded demand charge (base rate plus environmental surcharge) for a CSR customer served under Rate RTS. (See the attachment to this response.) In other words, the concern raised by Staff’s question is already addressed in KU’s and LG&E’s existing rates and CSR credits since, as a general matter, CSR customers pay around 50 percent of demand-related fixed costs paid by firm service customers.
### KU RATE RTS - CSR CREDIT COMPARED TO FULL DEMAND CHARGE

<table>
<thead>
<tr>
<th></th>
<th>RTS Prior Rate</th>
<th>RTS Present Rate</th>
<th>ES Roll-in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand kVA Base</td>
<td>$2.84</td>
<td>$3.10</td>
<td>$0.26</td>
</tr>
<tr>
<td>Demand kVA Intermediate</td>
<td>4.37</td>
<td>4.63</td>
<td>0.26</td>
</tr>
<tr>
<td>Demand kVA Peak</td>
<td>4.47</td>
<td>4.73</td>
<td>0.26</td>
</tr>
<tr>
<td><strong>Total for peak demand</strong></td>
<td><strong>$11.68</strong></td>
<td><strong>$12.46</strong></td>
<td></td>
</tr>
</tbody>
</table>

### RTS Rate Environmental Surcharge

<table>
<thead>
<tr>
<th>Expense Month</th>
<th>Billing Month</th>
<th>Reconciliation Filings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep 15</td>
<td>Nov 15</td>
<td>9.16%</td>
</tr>
<tr>
<td>Oct 15</td>
<td>Dec 15</td>
<td>10.07%</td>
</tr>
<tr>
<td>Nov 15</td>
<td>Jan 16</td>
<td>10.08%</td>
</tr>
<tr>
<td>Dec 15</td>
<td>Feb 16</td>
<td>10.05%</td>
</tr>
<tr>
<td>Jan 16</td>
<td>Mar 16</td>
<td>9.13%</td>
</tr>
<tr>
<td>Feb 16</td>
<td>Apr 16</td>
<td>2.42%</td>
</tr>
<tr>
<td>Mar 16</td>
<td>May 16</td>
<td>4.37%</td>
</tr>
<tr>
<td>Apr 16</td>
<td>Jun 16</td>
<td>5.37%</td>
</tr>
<tr>
<td>May 16</td>
<td>Jul 16</td>
<td>5.07%</td>
</tr>
<tr>
<td>Jun 16</td>
<td>Aug 16</td>
<td>3.54%</td>
</tr>
<tr>
<td>Jul 16</td>
<td>Sep 16</td>
<td>2.77%</td>
</tr>
<tr>
<td>Aug 16</td>
<td>Oct 16</td>
<td>2.59%</td>
</tr>
<tr>
<td>Sep 16</td>
<td>Oct 16</td>
<td>2.59%</td>
</tr>
</tbody>
</table>

Reflects roll-in of $60.2 million of additional environmental costs into base rates, in Case No. 2015-00221. This is the level in the present base rates above.
LG&E RATE RTS - CSR CREDIT COMPARED TO FULL DEMAND CHARGE

<table>
<thead>
<tr>
<th></th>
<th>RTS Prior</th>
<th>RTS Present</th>
<th>ES Roll-in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand kVA Base</td>
<td>$2.57</td>
<td>$3.05</td>
<td>$0.48</td>
</tr>
<tr>
<td>Demand kVA Intermediate</td>
<td>2.82</td>
<td>3.30</td>
<td>0.48</td>
</tr>
<tr>
<td>Demand kVA Peak</td>
<td>4.37</td>
<td>4.85</td>
<td>0.48</td>
</tr>
<tr>
<td>Total for peak demand</td>
<td>$9.76</td>
<td>$11.20</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>5 Mos</th>
<th>7 Mos</th>
<th>Wtd Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Environmental Surcharge</td>
<td>15.60%</td>
<td>7.17%</td>
<td></td>
</tr>
<tr>
<td>Adjusted Prod-Trans Rate</td>
<td>$11.28</td>
<td>$12.00</td>
<td>$11.70</td>
</tr>
<tr>
<td>CSR Credit</td>
<td>(6.40)</td>
<td>(6.40)</td>
<td>(6.40)</td>
</tr>
<tr>
<td>Residual Prod-Trans Costs paid - $/kVa</td>
<td>$4.88</td>
<td>$5.60</td>
<td>$5.30</td>
</tr>
<tr>
<td>Residual Prod-Trans Costs paid - % of Adj</td>
<td>43.3%</td>
<td>46.7%</td>
<td>45.3%</td>
</tr>
</tbody>
</table>

Reflects roll-in of $59.8 million of additional environmental costs into base rates, in Case No. 2015-00222. This is the level in the present base rates above.
2. Refer to the Direct Testimony of Richard A. Baudino ("Baudino Testimony"), page 8, lines 20-23. Explain whether the March 15, 2017 interest rate increase by the Federal Reserve ("Fed") and the Fed signaling two more interest rate increases through 2017 alters the expected Return on Equity ("ROE").

RESPONSE:

In Mr. Baudino’s view, the recent increase in the Federal Funds rate by the Fed does not alter his recommendation for the expected ROE for LGE and KU. Table 1 below tracks movements in the 20-year Treasury Bond yield, the Mergent average utility bond yield, and the Dow Jones Utilities Average ("DJUA") from January 2016 through February 2017.
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'S RESPONSE TO COMMISSION STAFF'S INITIAL REQUEST FOR INFORMATION

TABLE 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>20-Year Treasury %</th>
<th>Avg. Utility Bond %</th>
<th>DJUA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>January</td>
<td>2.49</td>
<td>4.62</td>
<td>611.35</td>
</tr>
<tr>
<td></td>
<td>February</td>
<td>2.20</td>
<td>4.44</td>
<td>620.70</td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>2.28</td>
<td>4.40</td>
<td>668.57</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>2.21</td>
<td>4.16</td>
<td>654.44</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>2.22</td>
<td>4.06</td>
<td>659.44</td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>2.02</td>
<td>3.93</td>
<td>716.52</td>
</tr>
<tr>
<td></td>
<td>July</td>
<td>1.82</td>
<td>3.70</td>
<td>711.42</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>1.89</td>
<td>3.73</td>
<td>666.87</td>
</tr>
<tr>
<td></td>
<td>September</td>
<td>2.02</td>
<td>3.80</td>
<td>668.13</td>
</tr>
<tr>
<td></td>
<td>October</td>
<td>2.17</td>
<td>3.90</td>
<td>675.23</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>2.54</td>
<td>4.21</td>
<td>632.67</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>2.84</td>
<td>4.39</td>
<td>645.86</td>
</tr>
<tr>
<td>2017</td>
<td>January</td>
<td>2.75</td>
<td>4.24</td>
<td>668.87</td>
</tr>
<tr>
<td></td>
<td>February</td>
<td>2.76</td>
<td>4.25</td>
<td>703.16</td>
</tr>
</tbody>
</table>

Table 1 shows that the 20-year Treasury Bond yield was higher in February 2017 than it was in January 2016 before the Fed began raising short-term interest rates. However, the yield on the
COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.’S RESPONSE TO COMMISSION STAFF’S INITIAL REQUEST FOR INFORMATION

Mergent average public utility bond was substantially lower in February 2017 than in January 2016, although the yield has increased since May 2016. Similarly, the DJUA was substantially higher in February 2017 than it was in January 2016.

After the Fed’s announced increase to the Federal Funds rate on March 15, 2017, the DJUA closed at 693.01 on March 16, 2017, and the Moody’s average public utility bond yield closed at 4.35%. The conclusion from this data is that even though the Federal Reserve has begun to raise short-term interest rates since March 2016, utility bond yields are still lower and the DJUA is higher than they were at the beginning of 2016.
COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.'S RESPONSE TO COMMISSION STAFF'S INITIAL REQUEST FOR INFORMATION

3. Refer to the Baudino Testimony, page 16, lines 15-16. State whether KIUC's proxy group would change if Mr. Baudino used the selection criteria he used in past cases. If so, explain how and provide the impact, if any, on KIUC's recommended ROE.

RESPONSE:

Mr. Baudino did not perform an analysis using the selection criteria he used in past cases and therefore does not know if the proxy group would change. However, based on the results Mr. Baudino obtained in this proceeding, he believes it is unlikely that the ROE results would have significantly differed had he used the selection criteria he used in the past LGE/KU rate proceeding.
4. Refer to the Baudino Testimony, page 21, line 2. Explain why the expected dividend yield is multiplied by one plus one-half of the expected growth rate.

RESPONSE:

It is the current dividend yield that must be multiplied by one plus one-half of the expected growth rate in order to obtain the expected dividend yield for the constant growth DCF formula. This adjustment properly moves the current dividend yield forward one period to reflect the investors’ expected dividend yield, or $D_1$. 
5. Refer to the Baudino Testimony. Provide all exhibits electronically in Excel format, with all formulas intact and unprotected.

RESPONSE:

Please refer to the attached spreadsheet entitled “LGE KU 2017 ROE Analysis.xlsx,” which contains the Excel spreadsheet with Mr. Baudino’s ROE calculations and the resulting exhibits.
6. Refer to the Direct Testimony and Exhibits of Lane Kollen ("Kollen Testimony"), pages 11-12, in which Mr. Kollen recommends that the Commission deny the requests for Certificates of Public Convenience and Necessity of Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") for the installation of Automated Metering Systems ("AMS"). The Commission regulates two other fully integrated electric utilities and 19 electric distribution cooperatives. Explain whether Mr. Kollen is aware of how many of these 21 electric utilities have installed, or are in the process of installing, some form of AMS.

RESPONSE:

No. Mr. Kollen believes that each utility’s request is unique and should be evaluated on its own merits or lack thereof.
7. Refer to the Kollen Testimony, pages 14-16, in which Mr. Kollen discusses the need for a slippage factor for both KU and LG&E. The statement beginning on page 14, line 14 reads, "Yes. In most years, the Companies spend less than their budgets and forecasts on capital costs recovered through base rates."

   a. While the statement refers to "most years" explain whether it is Mr. Kollen's understanding that, for the period 2006-2015, KU spent less than what it had budgeted for capital costs in six years and more than what it budgeted in four years.

   b. The statement refers to "most years." Explain whether it is Mr. Kollen's understanding that, for the period 2006-2015, LG&E spent less than what it budgeted for capital costs in seven years and more than it had budgeted in three years; and that, in one of the years, 2015, in which it spent less than what it had budgeted, the difference between the budgeted amount and the amount spent was 0.59 percent.

RESPONSE:

   a. Yes. Refer to KU’s response to KIUC 1-13(b).

   b. Yes. Refer to LG&E’s response to KIUC 1-13(b).
8. Refer to the Kollen Testimony, pages 21-22, which contains Mr. Kollen’s recommendation that the Commission normalize generation outage expense included in the test year by using the most recent five-year average of generation outage expense instead of the test year forecast expense. Identify all rate cases in which Mr. Kollen has made a like recommendation and the cases in which his recommendation was adopted.

RESPONSE:

Mr. Kollen does not recall all cases in which he addressed this issue, whether the utility proposed such an adjustment, whether Mr. Kollen proposed such an adjustment or a different amount than recommended by the utility, or whether the issue related to expenses in a historic test year or forecast test year. Nevertheless, Mr. Kollen addressed generation outage expenses in at least the following cases:

FPSC Docket No. 120015-EI
KPSC Case No. 2012-00221
KPSC Case No. 2012-00222

FPSC Docket No. 120015-EI was settled with no specific adjudication or finding by the Florida Commission regarding Mr. Kollen’s recommendations on nuclear generation outage expense. KPSC Case Nos. 2012-00221 and 2012-00222 were settled with no specific adjudication or finding by the Commission on Mr. Kollen’s recommendation to normalize generation outage expense.
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

AFFIDAVIT

STATE OF ________
COUNTY OF ________

Lane Kollen, being duly sworn, deposes and states: that the attached are his sworn data responses and that the statements contained are true and correct to the best of his knowledge, information and belief.

Lane Kollen

Subscribed and sworn to or affirmed before me this 3rd day of March, 2017.

Notary Public

Jessica Kinman

Notary Public
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES )
COMPANY FOR AN ADJUSTMENT OF )
ITS ELECTRIC RATES AND FOR ) CASE NO. 2016-00370
CERTIFICATES OF PUBLIC )
CONVENIENCE AND NECESSITY )

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND )
ELECTRIC COMPANY FOR AN )
ADJUSTMENT OF ITS ELECTRIC AND ) CASE NO. 2016-00371
GAS RATES AND FOR CERTIFICATES OF )
PUBLIC CONVENIENCE AND NECESSITY )

AFFIDAVIT

STATE OF N
COUNTY OF Sworn

Richard A. Baudino, being duly sworn, deposes and states: that the attached are his sworn data responses
and that the statements contained are true and correct to the best of his knowledge, information and belief.

Richard A. Baudino

Subscribed and sworn to or affirmed before me this 3rd day of March, 2017.

Notary Public
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF BASE RATES

) ) CASE NOS.
) ) 2016-00371

AFFIDAVIT

COMMONWEALTH OF VIRGINIA)
COUNTY OF FAIRFAX)

Dennis Goins, being duly sworn, deposes and states: that the attached are his sworn data responses and that the statements contained are true and correct to the best of his knowledge, information, and belief.

Dennis W. Goins

Subscribed and sworn to or affirmed before me
this 27th day of March, 2017.

Notary Public

REYNA MARIBEL VANEGAS
Notary Public
Commonwealth of Virginia
320413
My Commission Expires Jan 31, 2018
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF BASE RATES

) CASE NOS. 2016-00370

AFFIDAVIT

COMMONWEALTH OF VIRGINIA
COUNTY OF FAIRFAX

Dennis Goins, being duly sworn, deposes and states: that the attached are his sworn data responses and that the statements contained are true and correct to the best of his knowledge, information, and belief.

[Signature]
Dennis W. Goins

Subscribed and sworn to or affirmed before me
this 27th day of March, 2017.

Notary Public

[Stamp] REYNA MARIDEL VANEGAS
Notary Public
Commonwealth of Virginia
320413
My Commission Expires Jan 31, 2018