## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

## ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ) ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ) C ELECTRIC AND GAS RATES AND FOR CERTIFICATES ) 20 OF PUBLIC CONVENIENCE AND NECESSITY )

CASE NO. 2016-00371

## COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION TO LOUISVILLE GAS AND ELECTRIC COMPANY

Louisville Gas and Electric Company ("LG&E"), pursuant to 807 KAR 5:001, is to file with the Commission an original and six copies in paper medium and an electronic version of the following information. The information requested herein is due no later than January 25, 2017. Responses to requests for information in paper medium shall be appropriately bound, tabbed and indexed. Each response shall include the name of the witness responsible for responding to the questions related to the information provided.

Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or the person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry. LG&E shall make timely amendment to any prior response if it obtains information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which LG&E fails or refuses to furnish all or part of the requested information, it shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations. When filing a paper containing personal information, LG&E shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Refer to the Application, page 9, paragraph 16; the Direct Testimony of Victor A. Staffieri ("Staffieri Testimony"), page 2, lines 6–7; and the Direct Testimony of Paul W. Thompson ("Thompson Testimony"), page 22, lines 5–6. The Application states that LG&E will replace a total of 418,000 electric meters in its territory. The Staffieri Testimony states that LG&E serves 403,000 electric customers, while the Thompson Testimony states that LG&E serves approximately 405,000 electric customers.

a. Explain the discrepancy in the number of electric customers served as stated in the testimonies.

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 B. Reconcile the number of electric meters being replaced as stated in the Application with the number of customers served by LG&E as stated in the testimonies.

2. Refer to the Application, page 17, paragraph 39. The last sentence of the paragraph states "[a]ccordingly, LG&E requests a permanent deviation from 807 KAR 5:006, Section 14(3), for its Advanced Metering System ("AMS") meters that allow for remote data communication." State whether there are AMS meters that do not allow for remote data communication. If so, explain.

3. Refer to the Application, page 18, paragraph 40. Explain how the AMS gas index provides the utility information regarding tampering or malfunctions.

4. Refer to the Application, page 19. The first full paragraph on the page notes that "KU requests a deviation from Section 15(3), to permit KU's proposed meter-testing approach...." State whether the references to "KU" in this paragraph should be "LG&E."

5. Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11, Original Sheet Nos. 35, 35.1, and 35.2 Lighting Service. State whether LG&E considered decreasing the rate for each of the following lights that exceed the cost support provided in the Direct Testimony of William Steven Seelye ("Seelye Testimony"), Exhibit WSS-4: 441, 440, 439, 457, 455, 452, 473, and 481. If not, explain.

6. Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11, Original Sheet Nos. 36, 36.1 and 36.2, Restricted Lighting Service. State whether

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LG&E considered decreasing the rate for each of the following lights that exceed the cost support provided in the Exhibit WSS-4: 279, 477, 958, 901, and 902.

7. Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11, Original Sheet Nos. 35, 35.2, and 36.2. Explain why LG&E is proposing to eliminate the following lights: 470, 476, 479, 483, 480, 484, and 347. Also explain whether there are any customers with these lights, and if so, the effect the elimination will have on those customers.

8. Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11, Original Sheet No. 41. Provide supporting calculations for the increase in the rates for EVSE, Electric Vehicle Supply Equipment, shown on this page.

Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11,
 Original Sheet No. 42. Provide supporting calculations for the increase in the Electric
 Vehicle Charging rate.

10. Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11, Original Sheet No. 75. Provide supporting calculations for the increase in the rates for EVSE-R, Electric Vehicle Supply Equipment, shown on this page.

11. Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11, Original Sheet No. 86.10, Demand-Side Management Cost Recovery Mechanism, and proposed P.S.C. Gas No. 11, Original Sheet No. 86.6, Demand-Side Management Cost Recovery Mechanism. State whether the current rates will change as a result of new base rates. If so, explain how they will change.

12. Refer to Tab 5 of the Application, proposed P.S.C. Electric No. 11, Original Sheet No. 97, Application for Service section, first paragraph.

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a. Outside of the date of birth requirement as discussed on page 31 of the Direct Testimony of Robert M. Conroy ("Conroy Testimony"), explain whether the changes to this paragraph represent a change from LG&E's current practice. If so, identify the changes and explain the reason for each change.

 Explain why the same changes were not proposed for the Application of Service section of Sheet No. 97 of LG&E's gas tariff.

13. Refer to Tab 5 of the Application, proposed P.S.C. Gas No. 11, Original Sheet No. 21, the proposed new Substitute Gas Sales Service tariff. There is a provision that states that LG&E may decline to serve customers using gas to generate electricity in standby or other applications under this rate schedule. Explain why this provision is included, and state under which tariff a customer wishing to generate its own electricity would be served.

14. Refer to Tab 5 of the Application, proposed P.S.C. Gas No. 11, Original Sheet Nos. 30.9, Firm Transportation Service, paragraph 4 and 51.4, TS-2 Rider, paragraph 3. Provide an example of the magnitude of the impact of the proposed change regarding the maximum hourly quantity on the customers that will be most affected.

15. Refer to Tab 5 of the Application, proposed P.S.C. Gas No. 11, Original Sheet No. 84, Gas Line Tracker ("GLT"), and the Direct Testimony of Christopher M. Garrett ("Garrett Testimony"), page 42. State whether LG&E is willing to specify a February 1 filing date and to add an annual February 1 filing date and April 30 effective date to the GLT tariff.

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16. Refer to Tab 16 of the Application, A. page 7 of 18, which states that rate case revenue requirements impacts are calculated using expected Return on Equity ("ROE") based on past rate case settlements. Provide the ROE used for each year of LG&E's 2017 electric and gas business plans.

17. Refer to Filing Requirement – 807 KAR 5:001, Section 16(8)(d) ("FR 16.8.d"), Schedule D-1 - Electric, page 2 of 9, line 32, Maintenance of Boiler Plant. The description of the \$5.014 million adjustment from the base period to the forecasted test period reads, "Major planned generator overhauls in forecasted test period for Trimble County units 1 and 2."

a. Provide the year(s) in which in which the most recent generator overhauls were performed on Trimble County units 1 and 2.

b. Provide the existing cycles for generator overhauls of Trimble
 County units 1 and 2.

c. After the test period, in what year(s) will generator overhauls be planned for Trimble County units?

d. Provide the projected cost of the overhaul at each unit.

e. Explain whether there will be similar overhauls on other units during the base period. If there are such overhauls, identify the unit(s) and provide the actual or projected cost thereof.

18. Refer to FR 16.8.d, Schedule D-1 - Electric, page 2 of 9, line 33, Maintenance of Electric Plant. The description of the \$4.958 million adjustment from the base period to the forecasted test period reads, "Major planned turbine overhaul in forecasted period for Mill Creek units and Trimble County unit 1."

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a. Provide the year(s) in which in which the most recent turbine overhauls were performed on the Mill Creek units and Trimble County unit 1.

b. Provide the existing cycles for turbine overhauls of the Mill Creek units and Trimble County unit 1.

c. After the test period, in what year(s) will generator overhauls be planned for Trimble County units?

d. Provide the projected cost of the overhaul at each unit.

e. Explain whether there will be similar overhauls on other units during the base period. If there are such overhauls, identify the unit(s) and provide the actual or projected cost thereof.

19. Refer to FR 16.8.d, Schedule D-1 - Electric, page 4 of 9, line 73, Misc Transmission Expenses. The description of the \$342,000 adjustment from the base period to the forecasted test period reads, "Variance primarily due to Transmission depancaking expenses for former Municipal Customers." Identify the former municipal customers of LG&E to which the description is referring.

20. Refer to FR 16.8.d, Schedule D-1 - Electric, page 5 of 9, line 78, Maintenance of Overhead Lines. The description of the \$1.062 million adjustment from the base period to the forecasted test period reads, "Variance is driven by change to "Cycle" based line clearing, enhanced corrosion prevention, and switch maintenance programs." Provide a breakdown of the adjustment which shows the amount attributable to each of these three items.

21. Refer to FR 16.8.d, Schedule D-1 - Electric, page 5 of 9, line 90, Meter Expenses. The description of the \$1.493 million adjustment from the base period to the

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forecasted test period reads, "Increase is due primarily to Advanced Meter System project expenses associated with removing, shipping, tracking, and testing the existing meters that are being removed." Provide the amount of the adjustment if LG&E's deviation request to eliminate the requirement to test the meters is granted.

22. Refer to FR 16.8.d, Schedule D-1 - Electric, page 6 of 9, line 101, Maintenance of Meters. The description of the \$1.428 million adjustment from the base period to the forecasted test period reads, "Test year includes Advanced Meter System expenses associated with repairs to the customer-owned bases of the meters that are attached to the customer's property." Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

23. Refer to FR 16.8.d, Schedule D-1 - Electric, page 7 of 9, line 124, Administrative and General Salaries. The description of the \$1.662 million adjustment from the base period to the forecasted test period reads, "Variance reflects changes in headcount, wage inflation, and less allocated to capital in 2018."

a. Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

b. Explain why the amount allocated to capital in 2018 is a component of this adjustment.

24. Refer to FR 16.8.d, Schedule D-1 - Electric, page 8 of 9, line 130, Employee Pension and Benefits. The description of the \$4.977 million adjustment from the base period to the forecasted test period reads, "Variance reflects higher pension expense due to a decrease in the discount rate and higher medical costs." Provide

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supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

25. Refer to FR 16.8.d, Schedule D-1 - Electric, page 8 of 9, line 140, Depreciation and Amortization. The description of the \$25.233 million adjustment from the base period to the forecasted test period reads, "Variance is due to increase in plant-in-service and higher proposed depreciation rates."

a. Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

b. Provide a work paper, spreadsheet, etc., which quantifies separately the portion of the adjustment due to the increase in plant-in-service and the portion due to higher proposed depreciation rates.

26. Refer to FR 16.8.d, Schedule D-1 - Gas, page 1 of 7, line 14, Transportation of Gas of Others. The description of the (\$611,000) million adjustment from the base period to the forecasted test period reads, "Variance reflects above normal heating load in the base period." Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

27. Refer to FR 16.8.d, Schedule D-1 - Gas, page 2 of 7, line 36, Compressor Station Expenses. The description of the \$1.013 million adjustment from the base period to the forecasted test period reads, "Increase is due primarily to Magnolia budgeting FERC 818, but actuals and forecast are appropriately charged to FERCs (834, 836, 887). Additionally, non-labor fuel gas is offset in FERC 810 and 929."

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Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

28. Refer to FR 16.8.d, Schedule D-1 - Gas, page 3 of 7, line 58, Maintenance of Mains. The description of the \$343,000 adjustment from the base period to the forecasted test period reads, "Increase is due primarily to pipeline integrity administration. Regulatory compliance of pipeline records results in increased internal labor costs as well as outside consultants to assist in TIMP risk algorithms. These increases are partially offset by a decrease in in-line inspection (one inspection is anticipated in the test year while two were performed in the base year.)" Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

29. Refer to FR 16.8.d, Schedule D-1 - Gas, page 4 of 7, line 69, Other Expenses. The description of the \$550,000 adjustment from the base period to the forecasted test period reads, "Increase of five headcount to comply with new regulations." Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

30. Refer to FR 16.8.d, Schedule D-1 - Gas, page 6 of 7, line 96, Administrative and General Salaries. The description of the \$493,000 adjustment from the base period to the forecasted test period reads, "Variance reflects changes in headcount, wage inflation, and less allocated to capital in 2018."

a. Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

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 Explain why the amount allocated to capital in 2018 is a component of this adjustment.

31. Refer to FR 16.8.d, Schedule D-1 - Gas, page 6 of 7, line 102, Employee Pension and Benefits. The description of the \$1.660 million adjustment from the base period to the forecasted test period reads, "Variance reflects higher pension expense due to a decrease in the discount rate and higher medical costs." Provide supporting work papers, spreadsheets, etc., which show the derivation of this adjustment along with any necessary narrative explanation.

32. Refer to the Staffieri Testimony, page 4, lines 15–17, that state, "He also provides his recommendation that an ROE of 10.23 percent is a reasonable ROE for both LG&E's electric and gas operations and KU's electric operations." LG&E last adjusted its base rates in July 2015.<sup>1</sup> Beginning with the month of July 2015 to the most current month's financial statements, provide by month in electronic Excel spreadsheet format, with formulas intact and cells unprotected, the 13-month average ROE for LG&E. This should be considered an ongoing request.

33. Refer to the Staffieri Testimony, page 8.

a. Provide both a description of *Site Selection* magazine and a copy of the September 2016 article recognizing LG&E and Kentucky Utilities ("KU") (collectively "Companies") as top utilities for support of economic growth.

b. Describe in detail the \$2.7 billion in corporate projects and the
 9,400 jobs for which the Companies' economic development team was honored.

<sup>&</sup>lt;sup>1</sup> Case No. 2014-00371, Application of Kentucky Utilities Company for an Adjustment of its Electric Rates (Ky. PSC, June 30, 2015).

34. Refer to the Staffieri Testimony, page 11, lines 9-13. Referring to LG&E and KU, the testimony reads, "Finally, the Companies are prepared to offer a Business Solar option to business and industrial customers who prefer to have an onsite solar facility. Under such an arrangement and subject to Commission approval, the Companies would build, own and operate a solar facility on the customer's property which would provide the customer with some or all of its power needs."

a. Clarify that this reference in the Staffieri Testimony is the only mention of a Business Solar option in LG&E's rate filing.

b. Confirm, with this reference in the Staffieri Testimony, that LG&E is not seeking Commission approval of either a specific solar project or any tariff provision related, generally, to a Business Solar option.

c. State whether, and if so when, LG&E intends to seek Commission approval of either a specific solar project or any tariff provision related, generally, to a Business Solar option.

35. Refer to the Staffieri Testimony, pages 12–14.

a. Provide the annual community contributions from the LG&E and KU Foundation and directly from the Companies for each year from 2012 through 2016.

b. Provide a breakdown, by year, of the \$2.5 million raised through customer contributions and the Companies' matching funds over the last seven years as part of the WinterCare Energy Fund.

c. Provide a breakdown, by year, of the disbursements from WinterCare Energy Fund for the last seven years.

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36. Refer to the Testimony of Kent W. Blake ("Blake Testimony"), the table at the top of page 5, which shows amounts spent or to be spent through the end of the proposed forecasted test period on capital projects.

a. Provide a breakdown, by account number, of the \$225.5 million in generation expense shown for LG&E and identify how much of the \$225.5 million will be spent prior to, and during, the proposed forecasted test period.

b. Provide a breakdown, by account number, of the \$196.7 million in electric distribution expense shown for LG&E, and identify how much of the \$196.7 million will be spent prior to, and during, the proposed forecasted test period.

c. Provide a breakdown, by account number, of the \$86.5 million in gas distribution expense shown for LG&E and identify how much of the \$86.5 million will be spent prior to, and during, the proposed forecasted test period.

d. Provide a breakdown, by account number, of the \$74.2 million in customer services & metering expense for LG&E and identify how much of the \$74.2 million will be spent prior to, and during, the proposed forecasted test period.

37. Refer to the Blake Testimony, page 9.

a. Identify, by account number, all categories of expense included in the \$55,000 lower expense in the proposed forecasted test period for the Companies' Human Resources department compared to the level currently embedded in rates from the last rate case.

b. Provide the total expenses for the Companies' Human Resources department in the proposed forecasted test period and explain why the expenses have decreased by the above-mentioned \$55,000 since the test year in the last rate case.

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c. Of the above-mentioned \$55,000, identify the amounts for LG&E electric and LG&E gas.

d. For all financial and administrative functions, provide the projected full-time employee headcount for the proposed forecasted test period.

e. Provide (1) headcount levels projected in the proposed forecasted test period for LG&E electric and LG&E gas and (2) the comparable headcount levels currently embedded in rates based on LG&E's last rate case.

38. Refer to the Thompson Testimony, page 11.

a. Prior to the 2015 audit by the North American Electric Reliability Corporation ("NERC"), state when NERC most recently audited the Companies.

b. Explain whether NERC conducts audits on a pre-set schedule or if the entities being audited and the timing of the audits are chosen at random.

c. If NERC's 2015 audit of the Companies resulted in a report, provide the report. If no report was produced by NERC, explain how the audit's findings were communicated to the Companies.

39. Refer to the Thompson Testimony, pages 11–12, and Exhibit PWT-1. Of the generating facilities in which LG&E has an ownership interest, identify any plants which are scheduled for retirement by the end of calendar year 2021.

40. Refer to the Thompson Testimony, page 17, lines 3–7. Provide separately the capacity factors at which each of the Paddy's Run units operated for 2015 and 2016.

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41. Refer to the Thompson Testimony, page 38, lines 23–24. State whether this statement indicates that only 50 percent of LG&E's customers will benefit from the Distribution Automation ("DA") program.

42. Refer to the Thompson Testimony, page 41.

 a. Refer to lines 9–17. Explain how it was determined that the benefits listed are significant enough to justify an investment of \$112 million in the proposed DA program.

b. Refer to lines 19-22. Provide the analysis discussed in this paragraph.

43. Refer to the Thompson Testimony, pages 38–43, and Exhibit PWT-6.

a. Page 41, lines 1–2 indicate that \$23 million in capital expenditures related to the proposed DA program will be incurred by the end of the proposed forecasted test period. Provide the amount of such expenditures expected to be incurred prior to, and during, the proposed forecasted test period.

b. Page 41, lines 4–5 indicate that \$1.16 million in DA-related operation and maintenance ("O&M") expenses will be incurred by the end of the proposed forecast test period. Provide the amount of DA-related O&M expenses to be incurred prior to, and during, the proposed forecasted test period.

c. Page 41, lines 3–4 indicate that \$6 million in DA-related O&M expenses is expected to be incurred over the seven-year implementation period. Exhibit PWT-6, page 1 of 1, contains a side-by-side comparison of the annual O&M expenses and O&M savings from the DA program for the period 2023 through 2051.

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(1) Provide the \$6 million in DA-related O&M expenses for the seven-year implementation period on an annual basis for each of the seven years.

(2) Explain how the expected annual O&M savings shown in Exhibit PWT-6 were developed

(3) Explain whether DA-related savings have been quantified for the seven-year implementation period. If they have been quantified, provide them. If they have not been quantified, explain why.

44. Refer to the Testimony of Daniel K. Arbough ("Arbough Testimony"), pages 12–13, and Exhibit DKA-6, page 1 of 1. Explain whether the peer group against which the Companies compare their debt costs is selected by the Companies, by another party on LG&E's behalf, or independently by a third party.

45. Refer to the Arbough Testimony, pages 19–20, regarding amortization of the regulatory asset related to the interest rate swap with Bank of America Merrill Lynch. LG&E proposes a 17-year amortization period for ratemaking purposes. Clarify whether it is LG&E's intent that the amortization commence in the first full month after issuance of a final Commission order in the proceeding.

46. Refer to the Arbough Testimony, Exhibit DKA -1, page 1 of 1, regarding the financial planning software utilized by the Companies. Under the UI Planner, there is a calculation for Interest & Dividends.

 Explain how dividends, if any, were reflected in the base year and test year.

b. Provide, by date, the amount of dividends LG&E has paid since
 2010. Consider this an ongoing request throughout this proceeding

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47. Refer to the Testimony of Adrien M. McKenzie, CFA ("McKenzie Testimony"), page 11, line 7, and Exhibit No. 4, page 1. Confirm that only three of the 22 proxy group utilities have higher year-end 2015 common equity ratios and only two have higher projected common equity ratios than the 53.27 percent common equity ratio used by LG&E.

48. Refer to the McKenzie Testimony, pages 20–21.

a. Explain why Duke Energy Corporation is not included in the proxy group.

b. Explain why including LG&E's parent company, PPL Corporation, in the proxy group is not circular.

c. The following companies had acquisition activity in the past year. Explain why it is appropriate to include them in the proxy group.

- (1) Black Hills Corporation<sup>2</sup>
- (2) Southern Company<sup>3</sup>
- (3) DTE Energy Company<sup>4</sup>

49. Refer to the McKenzie Testimony, page 44, and Exhibit No. 7 to the McKenzie Testimony.

 Explain why it was necessary to weight the firms in the calculations as described on page 44, lines 3–4, as opposed to performing the calculations on an unweighted basis.

<sup>&</sup>lt;sup>2</sup> October 28, 2016 issue of *The Value Line Investment Survey* at 2226.

<sup>&</sup>lt;sup>3</sup> November 18, 2016 issue of *The Value Line Investment Survey* at 151.

<sup>&</sup>lt;sup>4</sup> December 16, 2016 issue of *The Value Line Investment Survey* at 908.

 b. Provide a copy of Table 7.3 referenced in footnote (f) on pages 1 and 2 of Exhibit No. 7.

50. Refer to the McKenzie Testimony, page 52, and to Exhibit No. 9.

a. State whether triple-B utility bond yields were used in the Risk Premium analysis, as stated on page 52, or whether Baa utility bond yields were used as indicated in Exhibit 9, pages 1 and 2.

B. Refer to Exhibit No. 9, page 1. Provide an update to the Risk
 Premium Cost of Equity using the average bond yield on public utility bonds and Baa
 subset for the most current three months.

c. Refer to Exhibit No. 9, page 3. Provide an update of the Risk Premium calculation when allowed ROEs are available from Regulatory Research Associates for calendar year 2016.

51. Provide the most current ROE awarded by each respective regulatory agency and the date of the award for the proxy group of gas and electric utilities or for the utility subsidiary if the proxy group member is a holding company.

52. Refer to pages 8, 9, and 17 of the Testimony of David S. Sinclair ("Sinclair Testimony").

a. Based on its use of 20 years of climate data to estimate a normal average for electric demand, describe any consideration LG&E has given to using a period shorter than 30 years to perform its normalization of gas volumes for weather. Include any studies or research performed by LG&E regarding the predictive value of using 30 years of climate data as opposed to a shorter time period, such as 20 years,

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as used for forecasting normal weather in determining electric sales for the forecasted test period.

b. Describe any consideration LG&E has given to performing calculations pursuant to its Weather Normalization Adjustment Clause ("WNA") for residential and commercial rates, to use 20 years as opposed to a 30-year period, and confirm that the WNA does not specify a time period to be used in the calculations.

c. Provide the impact on the comparison of actual and average weather shown on page 17, Table 3, of using 20 years as opposed to 30 years of data.

d. Provide Excel spreadsheets showing the weather normalization of gas volumes underlying the base and forecasted period "Billed Mcf" in Schedule M.

53. Refer to page 18, lines 4–11, of the Sinclair Testimony. Provide details concerning the large increase in the gas usage of the major account customer, why it is not expected to continue, when the temporary increase began, when it is expected to return to normal levels, and how LG&E determined the level that is normal for this customer.

54. Refer to the Sinclair Testimony, page 25, lines 6–8. Explain why eight curtailment events were included in the annual generation forecast when no curtailments have been called since January 2014.

55. Refer to the Sinclair Testimony, pages 24–25. These pages refer to a curtailment that happened on January 30, 2014.

a. Explain how a combustion turbine ("CT") is categorized as either a primary CT or a secondary CT.

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b. State the load level at which LG&E's and KU's secondary combustion turbines operated during the curtailment event.

c. In general, explain how KU and LG&E determine which of its Curtailable Service Rider customers ("CSR") are curtailed.

56. Refer to the Sinclair Testimony, Exhibit DSS-2. Provide the Excel spreadsheets containing the inputs, model specifications, outputs, and adjustments to support Exhibit DSS-2.

57. Refer to LG&E's application, paragraph 16, the Testimony of John P. Malloy ("Malloy Testimony"), and Exhibit JPM-1 ("Ex. 1").

a. The last sentence in paragraph 16 of the application refers to the forecasted amount of incremental O&M expenses, \$13.0 million for LG&E electric, and \$2.5 million for LG&E gas, that are expected to be incurred during the deployment phase of the proposed AMS. Provide the amount and derivation of the incremental O&M expenses forecasted to be incurred during the proposed test year.

b. The Malloy Testimony, page 17, and Ex. 1, pages 30–44, reference the long-term benefits and costs related to the proposed AMS systems. Provide the amounts, if any, of such benefits and costs that are included in the proposed test year.

58. Refer to the Malloy Testimony, page 14, lines 20–22. Provide a breakdown of the \$120 million to be spent in customer service capital investments related to the AMS.

59. Refer to the Malloy Testimony, page 17, lines 8–15. Provide the basis for the 20-year estimated useful life for the AMS meters.

60. Refer to the Malloy Testimony, page 18, lines 18–20.

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a. State whether the meters installed under the AMS Customer
 Offering included in LG&E's DSM program are the same meters to be installed as part
 of the proposed AMS. If not, explain.

b. State whether all General Service customers currently have meters that measure demand. If not, explain how LG&E determines whether a customer's 12month-average monthly maximum load is 50 kW or less, qualifying the customer for the rate schedule.

c. State whether all of the proposed AMS meters will be capable of measuring demand. If not, state which rate classes will have AMS meters capable of measuring demand.

61. Refer to the Malloy Testimony, pages 23–24, concerning the retirement of existing meters and the cost-benefit analysis' assumption of a five-year recovery period for the proposed regulatory asset.

a. Explain how the proposed five-year amortization period was determined.

b. Provide the remaining useful life of the meters to be retired.

c. Explain whether the Companies are aware that in Case No. 2011-00096<sup>5</sup> the Commission found that the regulatory asset associated with the retired meters was to be amortized over the life of the new meters for ratemaking purposes.

62. Refer to the Malloy Testimony, page 26, lines 17–23.

a. The testimony states that customers will not be allowed to opt out

<sup>&</sup>lt;sup>5</sup> Case No. 2011-00096, Application of South Kentucky Rural Electric Cooperative Corporation for an Adjustment to Rates (Ky. PSC Mar. 30, 2012).

of the AMS deployment. Provide the initial upfront cost and monthly cost that a customer would incur if opt-outs were allowed. Include the supporting calculations in the response.

b. Explain how removal of a single meter affects the ability of surrounding meters to consistently report their readings.

63. Refer to the Malloy Testimony, Exhibit JPM-1.

a. Refer to page 14 of 169.

(1) Refer to the first full paragraph, which states "[t]here are additional gas meters concerning which LG&E will either replace the index or the entire meter because they have an odometer style index that is not compatible with the AMS gas index module." Provide the estimated number of meters referred to in this sentence.

(2) Refer to the bullet point titled "Reading frequency," which states that energy consumption data is typically transmitted three to four times a day. State the number of times consumption data will be transmitted per day.

(3) Refer to footnote 9. State whether the MV90 meters are read remotely.

b. Refer to page 15 of 169, the fourth bullet point. Provide details of, and plans for Zigbee communication through in-home devices.

c. Refer to page 28 of 169, which states that LG&E is developing detailed plans and will begin negotiation with all of its partners. State whether LG&E plans to issue a Request for Proposals for the AMS. If not, explain.

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d. Refer to page 31 of 169. Confirm that the \$166 million ePortal Benefit shown on the graph is revenue loss to LG&E and KU.

e. Refer to page 36 of 169, Section 7.1.6., which states that "non-AMS meters taken out of service can be retired or used as replacements in areas that AMS has not been made available." Explain whether this statement indicates that some areas will remain in which AMS will not be made available.

f. Refer to page 38 of 169, middle of the page.

(1) Provide the supporting calculations for the amounts that appear in the row "Meters and Network" in the Operating Costs section.

(2) Provide the supporting calculations for the amounts that appear in the row "Total Benefits."

g. Refer to pages 152–158 of 169. Provide all assumptions, calculations and spreadsheets used to support the savings calculated on these pages.

h. Refer to pages 159–166 of 169, Appendix A-6. Provide an explanation of the evaluation performed in this appendix.

64. Refer to the Testimony of Lonnie E. Bellar ("Bellar Testimony"), pages 3–
4.

a. Provide a map of LG&E's Bullitt County gas service area in sufficient detail to show the proposed natural gas pipeline route along with all LG&E facilities currently in place.

b. Provide pipe size and specifications for the proposed construction.

c. State what permits will be needed for the proposed pipeline construction.

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d. State whether the proposed pipeline construction is expected to take place in private easements or existing rights-of-way.

e. Explain why LG&E does not believe a Certificate of Public Convenience and Necessity is required for the construction of the proposed Bullitt County pipeline.

65. Refer to the Bellar Testimony, pages 7–10. Referring to the increase in employee headcount of 22 in gas distribution since the test period in LG&E's last rate case, on page 8, lines 2–5, Mr. Bellar indicates that the increased headcount is, in part, caused by LG&E's Transmission and Distribution Integrity Management Plans. Provide the headcount increase resulting specifically due to these plans.

66. Refer to the Bellar Testimony, page 9, lines 3–4, which refer to nearly 40 percent of LG&E's 173 front-line gas operating employees having 35 years, or more, of experience by 2021. With this outlook for retirements, explain whether LG&E envisions needing further increases in its gas distribution headcount over the next five years.

67. Refer to the Bellar Testimony, pages 17–19.

a. Provide the referenced study of LG&E's December 2010 to March
 2016 leak data.

b. Provide the annual number of leaks on steel service lines, as well as the annual percentage of steel service lines with leaks.

c. Provide a breakdown of the major components of the program costs that make up the \$101 million projection set out on page 19, lines 1–2.

68. Refer to the Bellar Testimony, pages 19–23.

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a. For the period identified above, December 2010 to March 2016, provide:

 (1) the annual incidence of leaks on the 15.5 miles of pipeline subject to replacement through the proposed Transmission Pipeline Modernization
 Program, and

(2) the number of leaks on the remainder of LG&E's 387 miles of transmission pipeline.

b. On page 20, line 11, the Bellar Testimony references the "first phase" of this program, and later describes the proposed program as the "initial" phase. Describe all later phases of the transmission pipeline replacement that LG&E is contemplating for inclusion in the Gas Line Tracker program and surcharge. The description should include annual expected cost and associated impact on bills of all customer classes.

c. Provide a breakdown of the major components of the Transmission Pipeline Modernization Program costs that make up the \$60 million projection set out on page 23, lines 20–21.

69. Refer to the Bellar Testimony, page 24. Provide estimated rates by customer class for each year of the proposed Gas Service Line Replacement Program and Transmission Pipeline Modernization Program.

70. Refer to the Conroy Testimony, page 4. Provide the Edison Electric Institute report referenced on lines 21–22.

71. Refer to pages 10 and 44 of the Conroy Testimony, which state that LG&E is proposing to increase its residential electric and gas basic service charges in a

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direction that will more accurately reflect the actual cost of providing service. Explain how the proposed 105 percent increase in the electric residential service charge (from \$10.75 to within four cents of the \$22.04 customer-related cost from the cost of service study) and the proposed 78 percent increase in the gas residential service charge (from \$13.50 to \$24.00) can be considered simply moving in the direction of reflecting the fully allocated cost. The explanation should include how the proposed 105 and 78 percent increases in the customer charge comport with the ratemaking principle of gradualism referenced on page 7, line 7 of the Conroy Testimony.

72. Refer to the Conroy Testimony, page 19. Provide the largest rate impact the proposed changes will have on a single customer taking service under any of the affected rate classes (TODS, TODP, and RTS).

73. Refer to pages 20–21 of the Conroy Testimony. Describe LG&E's communication with the special contract customer regarding the requested termination of the existing special contract, and the customer's understanding regarding the proposed switch to service pursuant to Rate TODP.

74. Refer to the Conroy Testimony, page 21, lines 15–16. Describe the circumstances under which service under the General Service tariff would need to be unmetered.

75. Refer to the Conroy Testimony, page 22, which states that LG&E intends to offer four new LED lighting options. Also refer to the Seelye Testimony, page 56, which lists five distinct lighting options of 50 watts, 68 watts, 80 watts, 134 watts, and 228 watts. Confirm that LG&E intends to install five types of LED lights instead of four.

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76. Refer to the Conroy Testimony, page 24, lines 1–5. Explain the disadvantages of continuing the current practice of the Cable Television Attachment Charge ("CTAC") tariff applying to cable television system operators and executing license agreements with other entities.

Refer to the Conroy Testimony, page 24, line 19, through page 25, line
 Explain the unique nature and pricing arrangements of the facilities that would not be subject to the proposed Pole and Structure Attachment Charge ("PSA") tariff.

78. Refer to the Conroy Testimony, page 25, lines 11–14.

a. Provide the rate impact, if any, of the changes to the CTAC tariff on current CTAC tariff customers.

b. Provide the rate impact of the changes to the CTAC tariff on the entities with license agreements.

79. Refer to the Conroy Testimony, page 26.

a. Refer to lines 8–9. Explain the reason for proposing a ten-year term of service.

b. Refer to lines 13–21. Assuming the proposal to eliminate the Meter Data Processing Charge is approved, confirm that LG&E will continue to provide the paper reports until the customer is able to access the information through LG&E's website. If this cannot be confirmed, explain.

80. Refer to the Conroy Testimony, pages 26–27, which discuss new proposed charges for customers reconnecting service without authorization.

a. Confirm that LG&E's tariff currently allows it to collect from a customer all expenses for damage caused due to an unauthorized reconnection.

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 b. Assuming the proposed charges are approved, explain if LG&E will be able to recover amounts in excess of the proposed charges, should a higher amount of damage occur.

81. Refer to the Conroy Testimony, pages 27-28. Explain the circumstances giving rise to the proposed change in the Existing Base Load calculation for the Economic Development Rider. State whether LG&E has experienced problems such as those discussed on page 28 regarding use of the three-year average.

82. Refer to the Conroy Testimony, page 28, line 18, through page 29, line 1. Assuming approval of LG&E's Application as filed, provide the effect it would have on the Solar Capacity Charge and Solar Energy Credit.

83. Refer to the Conroy Testimony, pages 32–33. Explain the circumstances giving rise to the proposed text change to the Contracted Demands provision at Sheet No. 97, and whether LG&E has experienced a situation such as that discussed on page 33, lines 5–8.

84. Refer to the Conroy Testimony, pages 45–46, which discuss its proposal to remove the Gas Supply Cost Component rate from the Rate sections of its rate schedules subject to gas cost rates. State whether LG&E is aware of any other Local Distribution Company regulated by the Commission that does not provide its total billing rate (distribution plus gas cost) for gas sales service on a single rate sheet.

85. Refer to the Conroy Testimony, pages 46–48, which discusses the new proposed Substitute Gas Sales Service ("Rate SGSS").

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a. Provide the number of customers with alternative gas supply billed for firm sales service annually, per rate schedule, over the last five years, along with the billed amounts and the Mcf volumes sold.

b. Provide the impact of the change proposed by LG&E on the customer discussed on page 47, beginning on line 17.

86. Refer to the Seelye Testimony, page 2, lines 8–12.

a. State whether LG&E is aware of the Commission's having approved a Loss of Load Probability Cost of Service Study ("LOLP COSS") in another proceeding. If so, provide the case number of the proceeding.

 b. State whether LG&E is aware of a LOLP COSS being approved in other state jurisdictions. If so, provide the state and docket number.

87. Refer to the Seelye Testimony, page 4, lines 9–13.

a. By rate class, provide the number of customers that have installed distributed generation.

b. Mr. Seelye states on page 15, line 22 of his testimony, that distributed generation has not yet created a significant problem for LG&E. Explain how a movement toward a rate design that more accurately reflects the actual cost of providing service is necessary, as opposed to a gradual movement to coincide with a gradual increase in distributed generation.

88. Refer to the Seelye Testimony, page 8. Provide Table 1 with an additional column representing the rate of return on rate base, assuming the proposed revenue increase is approved.

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89. Refer to the Seelye Testimony, page 14, lines 3–16. Provide a list of other utilities whose residential tariffs include a three- or multi-part rate design.

90. Refer to the Seelye Testimony, page 15, lines 11–20. Explain whether LG&E has considered proposing a new tariff specific to customers with distributed generation, such as solar panels or wind turbines, in order to address the issues discussed in Mr. Seelye's testimony, as opposed to increasing the customer charge for all customers within a rate class.

91. Refer to the Seelye Testimony, page 22, lines 21–22. Explain why interclass subsidies are minimally addressed in the proposed rate design.

92. Refer to the Seelye Testimony, pages 32–37.

a. On page 34, lines 8–10 state that without a ratchet, Customer A would be overpaying. Tables 5 and 6 show the demand charge revenue without a ratchet and with a ratchet, respectively. The amount paid by Customer A is the same in both tables. State whether this indicates that Customer A overpays with or without a ratchet.

b. At page 37, lines 4–5, Mr. Seelye states, "Some low-load-factor customers will have a maximum demand that coincides with the system peak and others may not."

(1) Explain the extent to which LG&E has given consideration to making changes to the tariffs with demand ratchets so that customers whose peak demand does not coincide with the system peak do not pay ratchet demand rates or pay a reduced ratchet percentage.

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(2) What consideration has LG&E given to offering a Power Service Time-of-Day tariff? Explain the advantages and disadvantages of offering such a tariff.

c. Refer to page 37, lines 1-4.

 State whether this section indicates that LG&E would incur less costs if Customer B had the same load as Customer A.

(2) State whether there is no benefit to LG&E when Customer B has a lower load in some months.

93. Refer to the Seelye Testimony, page 44, lines 13–17. Mr. Seelye provides an example that if a customer has installed solar generation, then LG&E would be called upon to provide backup power when there is not sufficient sunlight to power the solar panels. Mr. Seelye states that this is likely to occur during LG&E's peak periods, such as during a winter system peak, which usually occurs during nighttime hours. State whether customers with solar generation are less likely to need backup power during the summer peak.

94. Refer to the Seelye Testimony, page 46, line 10 though page 47 line 2.

a. For a hypothetical customer with distributed generation taking service under any of the rate schedules TODS, TODP, and RTS, state the amount the customer would be billed if it uses LG&E power during only one month of the year. Include in the response a breakdown of the billing components.

b. For a hypothetical customer with distributed generation taking service under any of the rate schedules TODS, TODP, and RTS, state the amount the

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customer would be billed if it does not use LG&E power during any month of the year. Include in the response a breakdown of the billing components.

95. Refer to the Seelye Testimony, page 49, lines 11–19.

a. State whether LG&E expects that the customer bill increases and decreases due to the proposed change to the Base Demand Charge demand ratchet will net to, or near, zero.

b. Provide the largest effect the proposed change to the Base Demand Charge demand ratchet will have on a single customer in each affected rate class.

96. Refer to the Seelye Testimony, page 52, lines 12–16. State whether LG&E owns any CTs that are not considered "large-frame" CTs. If so, provide the following:

a. The name of each CT.

b. The location of each CT in the dispatch order.

c. The number of hours each CT operated in 2015 and 2016.

d. The amount of CSR credits that would result if the calculation used the CTs that are highest in the dispatch order (regardless of whether they qualify as large-frame).

97. Refer to the Seelye Testimony, page 55, lines 19–21. These lines state that mercury vapor and incandescent lights are no longer being replaced. Explain whether this statement means that the bulbs are not being replaced, or whether the fixtures are not being replaced.

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98. Refer to the Seelye Testimony, page 56, lines 16–20. Explain why the average service life of a light-emitting-diode fixture is expected to be lower than other lights.

99. Refer to the Seelye Testimony, page 59. Provide Table 9 with an additional column representing the rate of return on rate base assuming the proposed revenue increase is approved.

100. Refer to the Seelye Testimony, page 63. For the Commercial Gas Service ("CGS") rate, provide the amount of the gas line tracker ("GLT") portion included in the proposed Basic Service Charge.

101. Refer to the Seelye Testimony, page 64. For the Industrial Gas Service ("IGS") rate, provide the amount of the GLT portion included in the proposed basic Service Charge.

102. Refer to the Seelye Testimony, page 74.

a. Identify the primary supplier of the customer to be transferred to proposed Rate SGSS, and the circumstances that cause the customer to choose LG&E's gas service as opposed to service from its primary supplier.

b. Provide the customer's usage pattern over the last five years.

103. Refer to the Seelye Testimony, page 80, line 19 through page 81, line 8.

a. State whether entities currently being charged only the annual pole attachment charge of \$7.25 could also be charged the proposed additional new charges if approved by the Commission. If so, explain.

b. State whether <u>new</u> attachments by entities with an existing contract will be charged the proposed PSA rates for the new attachment or at the contract rates.

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104. Refer to the Seelye Testimony, page 82, lines 13–16. Provide a copy of the Federal Communication Commission Report and Order referenced in the testimony.

105. Refer to the Seelye Testimony, page 84, line 17 through page 85, line 10.

a. Explain why the charge listed as (2) would be necessary given the proposed AMS.

 Explain why the charge listed as (3) would be necessary given the proposed AMS.

106. Refer to the Seelye Testimony, page 85, lines 16–21.

 Given that LG&E is currently recovering its out-of-pocket costs from customers who tamper with their meters, explain the necessity of establishing the proposed Unauthorized Reconnection Charges.

b. Explain whether this testimony indicates that the forecasted test year includes both expenses associated with tampering as well as revenues collected from customers, and in amounts identical to what is proposed through the Unauthorized Reconnection Charges.

107. Refer to the Seelye Testimony, page 86, lines 14–18. State whether all balance sheet and income statement accounts in the modified Base-Intermediate-Peak ("BIP") electric COSS, have been allocated using the same methodology and allocation factors as used in the most recent base rate proceeding. If not, provide the changes and the reasons for the changes.

108. Refer to the Seelye Testimony, page 89. For the most recent five-year period, provide the summer and winter peaks for KU, LG&E, and the Companies combined.

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109. Refer to the Seelye Testimony, page 91, lines 4–7. Explain in detail how the LOLP was calculated for each rate class using one hour of the test year as an example.

Refer to the Seelye Testimony, page 103, line 12 through page 104, line
 State whether the natural gas COSS has been allocated using the same methodology and allocation factors as used in the most recent base rate proceeding. If not, provide the changes and the reasons for the changes

111. Refer to the Seelye Testimony, Exhibit WSS-2.

a. Provide the supporting calculation for the "ECR in Base Rates" of
 \$.00691.

b. Provide the "Unit Cost of Service Based on the Cost of Service
 Study" for each rate class using the BIP COSS. Provide the response in Excel
 spreadsheet format with the formulae intact and unprotected.

c. Provide the "Unit Cost of Service Based on the Cost of Service Study" for each rate class using the LOLP COSS. Provide the response in Excel spreadsheet format with the formulae intact and unprotected.

112. Refer to the Seelye Testimony, Exhibit WSS-3. Explain what is meant by "Non-Burdened" and "Burdened" non-fuel operation and maintenance expenses and how the amounts were calculated.

113. Refer to the Seelye Testimony, Exhibits WSS-4 and WSS-5.

a. Explain how the "Fixed Charges (\$/yr)" of 16.80 percent was calculated.

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 Explain why the "Distribution Energy per kWh (\$/yr)" is equal to the Lighting Energy Service tariff rate. Include in the response how the LE rate was calculated.

c. Explain how the "Operation and Maintenance (\$/yr)" amount was calculated.

114. Refer to the Seelye Testimony, Exhibit WSS-13. Provide the basis for the space usage factor of .50.

115. Refer to the Seelye Testimony, Exhibit WSS-18, page 4 of 4. Explain how the split of Primary 73.18 percent and Secondary 26.82 percent was determined.

116. Refer to the Seelye Testimony, Exhibit WSS-19, page 4 of 4. Explain how the split of Primary 88.10 percent and Secondary 11.9 percent was determined.

117. Refer to the Seelye Testimony, Exhibits WSS-21 and WSS-22. Confirm that these two exhibits are the same, as there is no difference in the Functional Allocation and Classification under the BIP COSS and LOLP COSS. If this cannot be confirmed, identify the differences.

118. Refer to the Seelye Testimony, Exhibits WSS-23 and WSS-24, pages 59–60 of 60 for each exhibit. Explain the difference in the Interruptible Credit Allocator between the BIP COSS and LOLP COSS.

119. Refer to the Garrett Testimony, page 45, the journal entry in the middle of the page.

a. State the date in 2019 the journal entry is expected to be made.

b. Confirm that the journal entry represents projected balances at full deployment of the AMS. If this cannot be confirmed, explain.

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120. Refer to the Garrett Testimony, page 46, in which Mr. Garrett discusses LG&E's request for amortization of a regulatory liability related to reservation or termination fees received by LG&E for refined coal production facilities at certain generating stations. The testimony also references Case No. 2015-00264.<sup>6</sup> The final Order in that proceeding states that LG&E and KU could receive up to \$19.6 million of site licensing and coal yard services fees and that the term of the agreements were expected to run to the fourth quarter of 2021 unless the tax credit was extended. State the amount of fees related to the refined coal production facilities that are included as revenue in LG&E's test year.

121. Refer to the <u>Cadmus Industrial Sector DSM Potential Assessment for</u> <u>2016-2035 – Final Report</u> ("CADMUS Report") filed by the Companies into the postcase file in Case No. 2014-00003.<sup>7</sup> Refer also to the LG&E/KU DSM Energy Efficiency Advisory Group's October 14, 2016 report to the Commission filed into the post-case files in Case Nos. 2014-00371 and 2014-00372.<sup>8</sup>

a. Explain whether Kentucky Industrial Utility Customers, Inc. ("KIUC") has been invited to participate in the Companies' DSM Advisory Group, and if so, whether any KIUC member has attended any meetings of the DSM Advisory Group.

<sup>&</sup>lt;sup>6</sup> Case No. 2015-00264, Application of Louisville Gas and Electric Company and Kentucky Utilities Company Regarding Entrance into Refined Coal Agreements for Proposed Accounting and Fuel Adjustment Clause Treatment, and for Declaratory Ruling (Ky. PSC Nov. 24, 2015).

<sup>&</sup>lt;sup>7</sup> Case No. 2014-00003, Joint Application of Louisville Gas and Electric Company and Kentucky Utilities for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy-Efficiency Programs (Ky. PSC Nov. 14, 2014).

<sup>&</sup>lt;sup>8</sup> Case Nos. 2014-00371, Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates and 2014-00372, Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates (Ky. PSC June 30, 2015).

b. Based on the findings of the CADMUS Study, identify and describe any actions undertaken by LG&E regarding industrial DSM since the study's completion.

c. Based on the findings of the CADMUS Study, explain whether LG&E has any plans to include industrial programs in its DSM portfolio in the future.

d. Explain whether any of LG&E's customers that participated in the CADMUS Study have expressed interest in an industrial DSM program.

Jatheus

Talina R. Mathews Executive Director Public Service Commission P.O. Box 615 Frankfort, KY 40602

DATED JAN 1 2017

cc: Parties of Record

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