COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC TARIFF FILINGS OF LOUISVILLE)	
GAS AND ELECTRIC COMPANY AND)	
KENTUCKY UTILITIES COMPANY TO REVISE)	
PURCHASE RATES FOR SMALL CAPACITY)	CASE NO.
AND LARGE CAPACITY COGENERATION AND)	2023-00404
POWER PRODUCTION QUALIFYING FACILITIES)	
AND NET METERING SERVICE-2 CREDIT)	
RATES)	

COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION TO LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY

Louisville Gas and Electric Company and Kentucky Utilities Company (jointly, LG&E/KU), pursuant to 807 KAR 5:001, shall file with the Commission an electronic version of the following information. The information requested is due on March 22, 2024. The Commission directs LG&E/KU to the Commission's July 22, 2021 Order in Case No. 2020-00085¹ regarding filings with the Commission. Electronic documents shall be in portable document format (PDF), shall be searchable, and shall be appropriately bookmarked.

Each response shall include the question to which the response is made and 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

¹ Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID- 19* (Ky. PSC July 22, 2021), Order (in which the Commission ordered that for case filings made on and after March 16, 2020, filers are NOT required to file the original physical copies of the filings required by 807 KAR 5:001, Section 8).

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/KU shall make timely amendment to any prior response if LG&E/KU obtain information that indicates the response was incorrect or incomplete when made or, though correct or complete when made, is now incorrect or incomplete in any material respect.

For any request to which LG&E/KU fail or refuse to furnish all or part of the requested information, LG&E/KU shall provide a written explanation of the specific grounds for their failure to completely and precisely respond.

Careful attention shall be given to copied and scanned 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/KU shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

Refer to Tariff Filing, 2024-2025 Qualifying Facilities Rates & Net Metering
 Service-2 Bill Credit, Generation Planning & Analysis, October 2023, Table 4.

- a. Provide Table 4 with an updated Scenario #1 to represent the approved resource portfolio in the Commission's Order in Case No. 2022-00402.²
- b. Explain why equal weighting was assigned to Scenarios #1 and #2 when calculating the average capacity need in Table 4. Include in this explanation whether LG&E/KU consider these scenarios to be equally likely to occur.
- c. Explain how the magnitude of the annual capacity need impacts the avoided capacity cost on both a \$/MW-year and \$/MWh basis.
- d. Provide updated Tables 22 and 23 for the approved resource portfolio in Case No. 2022-00402.
- Refer to Tariff Filing, 2024-2025 Qualifying Facilities Rates & Net Metering
 Service-2 Bill Credit, Generation Planning & Analysis, October 2023, Table 6.
- a. Provide a breakdown of the costs included in the annual economic carrying charge for a new Combustion Turbine (CT) (e.g., capital costs, operational costs, maintenance costs, expected lifespan).
- b. Provide the same table and breakdown for the annual economic carrying charge for a new Natural Gas Combined Cycle (NGCC) unit.
- c. Perform a sensitivity analysis considering a 50 percent cost increase to the economic carrying charge for both the CT and NGCC unit. Provide the updated avoided capacity rates and all-in avoided cost rates.

² Case No. 2022-00402 Electronic Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates and Approval of a Demand Side Management Plan and Approval of Fossil Fuel-Fired Generating Unit Retirements (Ky. PSC Nov. 6, 2023), Order.

- 3. Refer to LG&E/KU's response to Commission Staff's First Request for Information (Staff's First Request), Item 1.
- a. In calculating this new capacity need, explain whether this assumes that Brown 3 is retired in 2030 with no replacement capacity. If not, explain the assumptions resulting in the conclusions asserted in the response.
- b. Confirm that the capacity need is calculated solely on the approved resource portfolio, or confirm that it is calculated as an average between the approved portfolio and Scenario 2: Section 111(d). If neither apply, explain the approach used and provide justification.
- 4. Refer to LG&E/KU's response to the Attorney General's First Request for Information, Item 3. Refer also to LG&E/KU's response to Joint Intervenors' First Request for Information, Item 3, Attachment 5.
- a. Confirm that a portion of Qualified Facilities (QF) generation is being curtailed in the avoided energy cost calculation. If not confirmed, explain why not.
- b. If the QF generation is being curtailed in the avoided energy cost calculation, then explain what factors are required or was considered for LG&E/KU to consider curtailment of the QF generation. Include in the response whether the QF generation is being curtailed due to the only units running at those hours are thermal units that cannot be ramped down because they are at their minimum operating capacity. If not because of the units minimum operating capacity, then explain which other circumstances led to the curtailment of QF generation in the avoided energy cost calculation.

5. Calculate the avoided energy cost using the following methodology and

provide the new avoided energy cost as well as the all-in avoided cost rates. Provide the

calculations for each step.

a. Step 1: Run a production cost study for the years 2024-2044 with the

Commission-approved portfolio from Case 2022-00402.

b. Step 2: Run a production cost study for the years 2024-2044 with the

Commission-approved portfolio from Case 2022-00402 plus 80 MW of QF solar. Assign

the QF solar a cost of \$0.

c. Step 3: Calculate the total annual portfolio cost in each study.

Subtract the annual cost of Study #2 from Study #1.

d. Step 4: Calculate the total energy generated by QF solar by year.

e. Step 5: Divide the cost differential in Step 3 by the total energy (Step

4) to determine avoided energy cost \$/MWh.

Linda C. Bridwell, PE Executive Director

Public Service Commission

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DATED MAR 11 2024

cc: Parties of Record

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