

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)	
UTILITIES COMPANY AND LOUISVILLE GAS)	CASE NO.
AND ELECTRIC COMPANY FOR CERTIFICATES)	2025-00045
OF PUBLIC CONVENIENCE AND NECESSITY)	
AND SITE COMPATIBILITY CERTIFICATES)	

COMMISSION STAFF'S POST-HEARING REQUEST FOR INFORMATION
TO KENTUCKY UTILITIES COMPANY AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Kentucky Utilities Company (KU) and Louisville Gas and Electric Company (LG&E) (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 no later than August 22, 2025. 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 representatives of a public or private corporation or a partnership or association or a

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).

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 obtains 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 fails or refuses to furnish all or part of the requested information, LG&E/KU shall provide a written explanation of the specific grounds for its 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.

1. Refer to the Hearing Testimony of Stuart Wilson and the Direct Testimony of Stuart Wilson (Wilson Direct Testimony), Exhibit SAW-1. Provide a stage-two resource adequacy analysis; calculate the summer (March-November), winter (January-February, December), total loss-of-load expectation (LOLE) and calculate the loss-of-load hours

(LOLH); calculate the expected unserved energy (EUE), and the present value revenue requirement (PVRR) (on an absolute and relative basis, compared to (1) the proposed portfolio in the application and (2) to the proposed portfolio in the stipulation agreement) for each of the following portfolios, with the assumption that there is 1,750 MW of data center load growth:

- a. Brown 12; Mill Creek 6; Ghent 2 with selective catalytic reduction (SCR); and an extension of Mill Creek 2 until 2031;
- b. Brown 12; Mill Creek 6; an extension of Mill Creek 2 until 2031; and Ghent 2 with no SCR; and
- c. Brown 12; Mill Creek 6; Ghent 2 with SCR; an extension of Mill Creek 2 until 2031; and with a Cane Run Battery Energy Storage System (BESS).

2. Refer to Item 1(a) of this request for information. Confirm whether an indefinite extension of Mill Creek 2 would change the analysis regarding the total LOLE, LOLH and EUE, and the PVRR (on an absolute and relative basis, compared to (1) the proposed portfolio in the application and (2) to the proposed portfolio in the stipulation agreement). If confirmed, provide this analysis.

3. Refer to Item 1(c) of this data request. Confirm whether a delay in the in-service date of the Cane Run BESS to 2029 would change the analysis regarding the total LOLE, LOLH and EUE, and the PVRR (on an absolute and relative basis, compared to (1) the proposed portfolio in the application and (2) to the proposed portfolio in the stipulation agreement). If confirmed, provide this analysis.

4. Refer to the Wilson Direct Testimony, Exhibit SAW-1, page 35 of 67. Conduct a stage three analysis using the portfolio recommended in the Stipulation and Recommendation.

5. Provide all written policies from transmission, distribution, generation, and planning regarding reserve margin percentages.

6. Explain why LG&E/KU's annual fixed operating and maintenance (O&M) Cost estimates for Brown 12, Mill Creek 6, Cane Run BESS, and Ghent 2 SCR differ from National Renewable Energy Laboratory (NREL) estimates and other industry benchmark estimates.

7. Refer to the Wilson Direct Testimony, Exhibit SAW-1, Section 4.4, Stage One: Portfolio Development, pages 29–33.

a. To establish a baseline portfolio, perform additional PLEXOS modeling runs to those in Stage One, Step One as described in Exhibit SAW-1, providing a list of any updated assumptions differing from the original assumptions, for zero data center load growth, but with non-economic development load growth without landfill constraints. For the non-economic development load growth, include the BlueOval SK load, the 19.4 MW of existing customer load expansion, 20 MW for the economic development project in the auto industry, and any other announced projects (as defined in the economic development pipeline stages). Provide a breakdown for any additional projects included.

b. Perform a stage one, step two least-cost portfolio analysis for the selected baseline portfolios.

c. Perform a stage two analysis and provide the results. Specifically, calculate the summer (March-November), winter (January-February, December), and total LOLE, LOLH and EUE, as well as the PVRR (on an absolute and relative basis, compared to first the proposed portfolio in the application and to the proposed portfolio in the stipulation agreement) for the baseline portfolio.

8. Refer to LG&E/KU's response to Commission Staff's Second Request for Information (Staff's Second Request), Item 1b.

a. Provide the LOLE, LOLH, and the EUE by replacing the 300 MW Cane Run BESS in the provided chart with Mill Creek 6.

b. As Mill Creek 6 was not originally chosen in the 1,002 MW data center load scenario, provide a breakdown of the differences in production costs by choosing Mill Creek 6 as opposed to the Cane Run BESS, all else being equal.

9. Provide a detailed breakdown of costs that compares adding an SCR on Ghent 2 versus on Mill Creek 2. Include in this a detailed breakdown of the costs associated with the addition of an SCR for Mill Creek 2.

10. Refer to the Direct Testimony of Stuart Wilson, Exhibit SAW-1, page 29. Provide the formula that LG&E/KU uses to calculate the PVRR.

11. Provide the MWh of operation for Mill Creek 2; Brown 3; Trimble County 1 and 2; and Mill Creek 1 and Ghent 2 for the years 2019-2025.

12. Provide a detailed list of the transmission infrastructure upgrades required for each proposed project. Include in the response an itemized estimated cost for each element of the upgrade.

13. Refer to the Hearing Testimony of Lonnie Bellar.

- a. Provide the current estimate for the Brown BESS in-service date.
 - b. Provide an update for the suppliers of the Brown BESS components along with the expected value of materials for the Brown BESS.
 - c. Provide an update on the current cost estimate for the Brown BESS.
14. Refer to LG&E/KU's response to the Attorney General/KIUC's First Request for Information, Item 29, Attachment. Provide an update to the Cane Run BESS project schedule.
15. Refer to LG&E/KU's response to Commission Staff's Fifth Request for Information, Item 21. Provide a breakdown of all expected costs associated with running Mill Creek 2 past 2031.
16. Refer to the Hearing Testimony of Phillip Imber and the Stipulation and Recommendation, page 8, Section 4.3. Provide a detailed timeline for applying for environmental permits or other approvals to continue operating Mill Creek 2, including, but not limited to, the estimated timeline for receiving all relevant permits, and all approvals needed under Clean Water Act Section 316(b) for water approvals.
17. Refer to the Hearing Testimony of Lonnie Bellar as well as the Stipulation and Recommendation, Section 1.3. Provide the age of all fossil fuel units in the Ohio Valley Electric Corporation (OVEC) system. Include in this response the book end depreciable life date.
18. Explain whether LG&E/KU has any other production slots with General Electric (GE) or any other NGCC manufacturer regardless of whether it relates to this application or not. As part of the response, provide the number of slots as well as manufacturers.

19. Refer to the Hearing Testimony of Lonnie Bellar. Mr. Bellar cited a possible 50 percent investment tax credit or approximately an additional \$80 million in tax credits. Explain whether this additional tax credit would offset rising costs of a one year or greater construction delay.

20. Refer to the Hearing Testimony of Lonnie Bellar. Explain if LG&E/KU would consider investigating synchronous condenser operations with the Mill Creek 1 generator.

21. Refer to the Hearing Testimony of John Bevington. Provide an updated list regarding all economic-development projects announced (using the economic-development pipeline definition) since this Application was filed.

22. Provide a NOx emissions analysis for the Mill Creek Generating Station, including Mill Creek 2 operating with Mill Creek 3, 4, and 5 and then Mill Creek 2 operating with Mill Creek 3, 4, 5, and 6. Assume that all scenarios provided are options for the companies.

23. Refer LG&E/KU's response to Commission Staff's Second Request for Information, Item 3, Attachment 1 which states "Portfolios that rely on solar PPAs to meet minimum summer reserve margin targets in place of a Ghent 2 SCR may not be actionable given the Companies' recent experience with solar PPAs." Refer also to the Hearing Testimony of Stuart Wilson. Reconcile why, if purchase power agreements are non-economic or not actionable, the companies included them as a resource option. In the response, include specific examples.

24. Refer to the Stipulation and Recommendation generally. Explain the impact of the Stipulation, if any, on the ownership interest of LG&E/KU of the proposed projects as well as Mill Creek 2.

25. Refer to Hearing Testimony of Charles Schram. Provide the specific information that the natural gas prices were based upon in the application. Include any calculations and supporting documentation for both the initial 20-year period as well as the following period.

26. Refer to Hearing Testimony of Charles Schram. Provide any updates from Texas Eastern Gas related to upgrade projects or updates to the ability to serve Brown 12.

27. Refer to Hearing Testimony of Charles Schram. Provide a cost estimate to serve Brown 12 utilizing natural gas from both Texas Eastern Gas and Tennessee Gas Pipeline. Include in the response a line-item breakdown of all costs associated with this request, including but not limited to expected ongoing O&M that results from such an arrangement. If the Texas Eastern Study is not available, model, per Mr. Schram's testimony, pricing involving purchasing capacity from an existing user on Texas Eastern Gas.

a. Provide a line-item breakdown of all estimated costs to serve Brown 12 entirely by Tennessee Gas.

b. Provide a line-item breakdown of all estimated costs to serve Brown 12 entirely by Texas Eastern Gas.

c. Provide a line-item breakdown of all estimated costs to serve Brown 12 with a combination of Texas Eastern Gas and Tennessee Gas.

28. Refer to the Hearing Testimony of John Bevington. State whether any hyperscale companies, as that term is generally understood in the industry to include (Amazon, Microsoft, Alphabet/Google, Meta, Apple, IBM, and/or Oracle), have

approached either LG&E or KU regarding service to power a data center and provide what stage in the economic development queue are all relevant companies in.

29. Provide any engineering, procurement, and construction (EPC) agreements related to the Cane Run BESS. Consider this an ongoing request.

30. Provide a calculation of NOx output for a day:

- a. MC 3, MC4, MC 5;
- b. MC2, MC3, MC4 and MC5;
- c. MC2, MC 3, MC4, MC5 and MC6; and
- d. MC2, MC 3, MC4.

31. Provide all agreements between Louisville Metro Air Pollution Control District (LMAPCD) and LG&E/KU regarding the Mill Creek Plant.

32. Refer to the agreement between Louisville Metro Air Pollution Control District (LMAPCD) and LG&E/KU regarding the Mill Creek Plant. Provide a full explanation of the termination clause, and how and why LG&E/KU triggered the termination clause, as discussed by Mr. Imber during the hearing regarding the closure in 2027 of Mill Creek 2 as it relates to the in-service date of Mill Creek 5, expected in 2027.



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DATED **AUG 13 2025**

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