

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

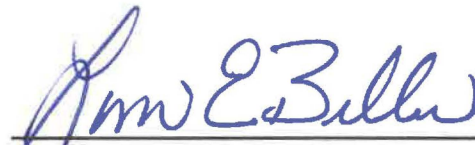
RESPONSE OF
KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY
TO
THE SIERRA CLUB'S SUPPLEMENTAL REQUEST FOR INFORMATION
DATED MAY 27, 2025

FILED: June 6, 2025

VERIFICATION

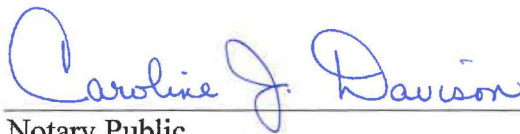
COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Executive Vice President of Engineering, Construction and Generation for PPL Services Corporation and he provides services to Louisville Gas and Electric Company and Kentucky Utilities Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 30th day of May 2025.



Notary Public

Notary Public ID No. KYNP 63286

My Commission Expires:

January 22, 2027



VERIFICATION

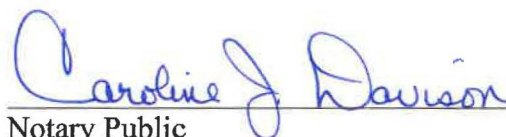
COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **John Bevington**, being duly sworn, deposes and says that he is Senior Director – Business and Economic Development for PPL Services Corporation and he provides services to LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.



John Bevington

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 2nd day of June 2025.

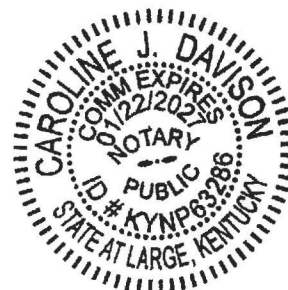


Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

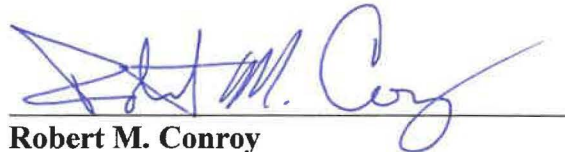
January 22, 2027




VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates, for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.


Robert M. Conroy

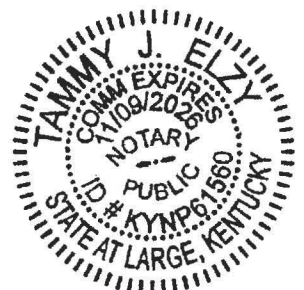
Subscribed and sworn to before me, a Notary Public in and before said County and State, this 4th day of June 2025.


Notary Public

Notary Public ID No. KYNP61560

My Commission Expires:

November 9, 2026



VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Christopher M. Garrett**, being duly sworn, deposes and says that he is Vice President – Financial Strategy & Chief Risk Officer for PPL Services Corporation and he provides services to Kentucky Utilities Company and Louisville Gas and Electric Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.



Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 3rd day of June 2025.



Notary Public

Notary Public ID No. KYNP61560

My Commission Expires:

November 9, 2026

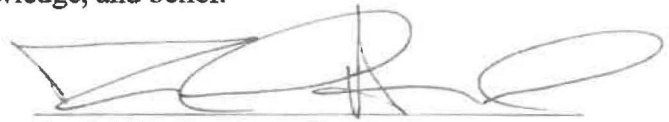


VERIFICATION

COMMONWEALTH OF KENTUCKY)

COUNTY OF JEFFERSON)

The undersigned, **Daniel Hawk**, being duly sworn, deposes and says that he is Director – Transmission Strategy and Planning for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.



Daniel Hawk

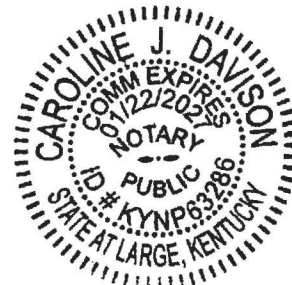
Subscribed and sworn to before me, a Notary Public in and before said County and State, this 4th day of June 2025.


Notary Public

Notary Public ID No. KYNPL63286

My Commission Expires:

January 22, 2027



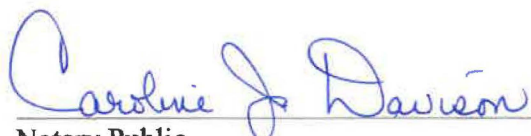
VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Philip A. Imber**, being duly sworn, deposes and says that he is Director – Environmental Compliance for PPL Services Corporation and he provides services to Louisville Gas and Electric Company and Kentucky Utilities Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.


Philip A. Imber

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 2nd day of June 2025.


Notary Public

Notary Public ID No. KYNPL3286

My Commission Expires:

January 22, 2027



COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)


Tim A. Jones

Caroline J. Davison
Notary Public

January 22, 2027



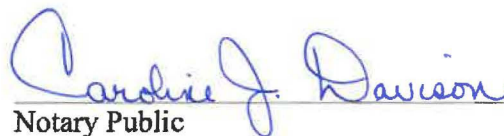
VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Elizabeth J. McFarland**, being duly sworn, deposes and says that she is Vice President, Transmission for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge, and belief.


Elizabeth J. McFarland

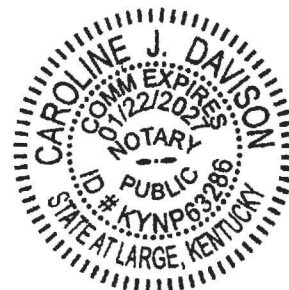
Subscribed and sworn to before me, a Notary Public in and before said County and State, this 3rd day of June 2025.


Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)


Charles R. Schram

Caroline J. Davison
Notary Public

January 22, 2027



VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **David L. Tummonds**, being duly sworn, deposes and says that he is Senior Director - Project Engineering for Kentucky Utilities Company and Louisville Gas and Electric Company and is an employee of LG&E and KU Services Company, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge, and belief.


David L. Tummonds

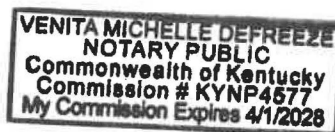
Subscribed and sworn to before me, a Notary Public in and before said County and State, this 4th day of June 2025.


Notary Public

Notary Public, ID No. KYNP 4577

My Commission Expires:

April 1, 2028



COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)


Stuart A. Wilson

Caroline J. Davison
Notary Public

January 22, 2027



**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-1

Responding Witness: John Bevington / Robert M. Conroy

Q-3-1. Please refer to the Company's response to PSC 28(b) and (c). With respect to potential "new tariff provisions for large, high load factor customers."

- a. Please confirm whether the Companies have shared these proposed new tariff provisions with potential impacted customers.
- b. Please identify any potential customers with which these proposed new tariff provisions were shared, or collaborated in the creation of these tariffs.

A-3-1.

- a. No, the Companies have not shared these proposed new tariff provisions with potential customers. The Companies' proposed Rate EHLF (Extremely High Load Factor) rate schedule is publicly available in the base rate case filings made May 30, 2025.
- b. Not applicable.

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-2

Responding Witness: John Bevington / Daniel Hawk / Elizabeth J. McFarland

Q-3-2. Please refer to SC DR1 LGE KU Attach to Q41(b) - CONFIDENTIAL Data Center Internal Reports. With respect to this document please answer the following:

- a. What analysis serves as the basis for the interconnection costs given in this document?
- b. What terms, if any, do prospective customers need to meet before the Companies will go to the work of providing the interconnection cost estimates given in this document?

A-3-2.

- a. With regard to the attachment provided to SC 1-41(b), a preliminary power flow analysis is performed to determine the potential interconnection facilities and network upgrades that may be required. Then, a planning level cost estimate is determined for each upgrade.
- b. There are no specific terms a customer needs to meet before the Companies will work to provide high-level cost estimates and possible timeframes for interconnection. In the process of assisting data center projects, clients need to first establish feasibility to determine if a site can meet their timeframes. The economic development team will determine if the client has the proper load information needed to have the transmission team perform a high-level assessment. Once transmission has completed this evaluation, the economic development team will communicate with the client and determine if there is enough interest to continue with more detailed processes, such as submitting a formal Transmission Service Request.

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-3

Responding Witness: Lonnie E. Bellar / Robert M. Conroy

Q-3-3. Please refer to the response to Staff 2-14(b) which states in part, "But it is also important to bear in mind that receiving a CPCN for a particular resource does not mean the Companies will proceed with it irrespective of changed circumstances. [...] Thus, the Companies will act on any CPCN authority granted in this proceeding only insofar as it is reasonable and prudent to do so."

- a. What changed circumstances would the Companies be on the lookout for as they consider whether to move forward with a particular resource assuming the CPCN is granted?
- b. What notice, if any, do the Companies feel obliged to give to the Commission should circumstances change?

A-3-3.

- a. The Companies do not have a predetermined list of circumstances to consider. Consistent with our obligation to provide safe and reliable power at the lowest reasonable cost, the Companies reassess the reasonableness of future investments if information relied upon substantially changes.
- b. As in the past, the Companies will keep the Commission informed of progress on projects as required by the Commission.

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-4

Responding Witness: John Bevington / Counsel

- Q-3-4. For any new customer that has shared with the Companies a projection of jobs created, what is the Companies' understanding of how many of those jobs will be located in state? Provide any documentation that supports the Companies' response.
- A-3-4. The Companies object to this request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.¹ Without waiving this objection, see the response to PSC 2-17(g).

¹ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-5

**Responding Witness: Lonnie E. Bellar / Daniel Hawk / Elizabeth J. McFarland /
Counsel**

- Q-3-5. Please refer to the Companies' May 2025 investor meetings presentation.
- a. Provide the information that serves as the basis for the job impacts given at slide 19.
 - b. How many of these jobs are permanent?
 - c. How many of these jobs are located within Kentucky?
 - d. What are the job titles or job categories (construction, maintenance, engineering, etc.) and what is the average salary for the job title or job category?
 - e. At slide 21, there is a reference to a projection of \$475 million in electric transmission investment in each of 2026 – 2028. Provide the detailed information that supports this projection.
- A-3-5. The Companies object to parts a – d of this request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.² Without waiving this objection, see the responses below.

² See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental

- a. The basis for this information is from the Kentucky Cabinet of Economic Development (“KCED”) publicly posted as CED Approved Projects located at [Annual Reports | Kentucky Cabinet for Economic Development](#).³
- b. The jobs posted by the KCED are considered permanent.
- c. The jobs posted by the KCED are considered Kentucky-based jobs.
- d. The reports provided by the KCED identify the “Industry Type” but do not identify the job titles or job categories. Otherwise, the Companies do not have the requested information.
- e. For updated projections and details, see the attached, which is a page from Case Nos. 2025-00113 and 2025-00114, Attachment to Filing Requirement, Tab 16 - 807 KAR 5:001 Section 16(7)(c) Item I, Page 114 of 142.

principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.”) (internal citations omitted).

³ https://newkentuckyhome.ky.gov/Newsroom/Annual_Reports.

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-6

Responding Witness: Lonnie E. Bellar / Robert M. Conroy / Counsel

- Q-3-6. Please provide any projections in the Companies' possession with all supporting detail and formulas intact of its future rate base for as long a period as such projections are made.
- A-3-6. The Companies object to this request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.⁴ Without waiving this objection, the Companies' projected capital expenditures through 2029 are available in Item I of Tab 16 in the filing requirements provided with the Companies' base rate applications filed on May 30, 2025, in Case Nos. 2025-00113 and 2025-00114.⁵

⁴ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

⁵ Available at https://psc.ky.gov/pscecf/2025-00113/rick.lovekamp%40lge-ku.com/05302025093159/09-KU_Filing_Requirements_-_2_of_10_%28Tabs_6-16%29.pdf and https://psc.ky.gov/pscecf/2025-00114/rick.lovekamp%40lge-ku.com/05302025095212/09-LGE_Filing_Requirements_-_2_of_11_%28Tabs_6-16%29.pdf.

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-7

Responding Witness: Lonnie E. Bellar / Robert M. Conroy / Counsel

- Q-3-7. Please provide any projections in the Companies' possession with all supporting detail and formulas intact of projected rate increases for each customer class as a result of this CPCN and/or other expected capital projects for as long a period as such projections are made.
- A-3-7. The Companies object to this request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.⁶ Without waiving this objection, see the response to PSC 2-36.

⁶ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-8

Responding Witness: Lonnie E. Bellar / David L. Tummonds

- Q-3-8. Please explain why the Companies have not submitted an interconnection request for Mill Creek 6.
- A-3-8. See response to JI 1-71(c) and (d).

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-9

Responding Witness: Charles R. Schram

Q-3-9. Please provide an updated list of projects for which a TSR has been submitted.

A-3-9. The most current list of TSRs is available at [https://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/TSR NITS Posting.pdf](https://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/TSR_NITS_Posting.pdf).

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-10

Responding Witness: John Bevington

Q-3-10. Please provide any completed TSR studies beyond those given in response to SC DR 1-41 and SC DR 2-18.

A-3-10. The other completed TSR study reports that have not yet been provided and are currently available can be found on our OASIS site.

The Facility Study for LGE-TSR-2024-004 can be found here:
https://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/LGE-TSR-2024-004_FS_Report.pdf.

The Facility Study for LGE TSR-2024-014 can be found here:
https://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/LGE-TSR-2024-014_FS_Report.pdf.

TSR	Requested Load (MW)	System Impact Study	Facility Study
LGE-TSR-2024-001	335	See SC 2-18	See SC 1-41(a)
LGE-TSR-2024-004	20	See SC 2-18	See attachment being provided as a separate file
LGE-TSR-2024-011	67	See SC 2-18	See SC 1-41(a)
LGE-TSR-2024-013	650	See SC 2-18	See SC 1-41(a)
LGE-TSR-2024-014	100	See SC 2-18	See attachment being provided as a separate file
LGE-TSR-2024-015	22	See SC 2-18	Not required
LGE-TSR-2025-001	57	See SC 2-18	Not yet available

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-11

Responding Witness: John Bevington / Charles R. Schram

- Q-3-11. Provide a list of all projects, their size, and name that have dropped out of the Companies' load interconnection queue since the filing of the IRP. Please provide the reason that each project has dropped out.
- A-3-11. The Companies assume "the Companies' load interconnection queue" refers to filed TSRs. For filed TSRs, only Project Meridian 1 (TSR for 100 MW; LGE-2024-012) lapsed and dropped out of the queue. However, it was replaced by Project Meridian 2 (TSR for 650 MW; LGE-2024-013) at a different location. As recently reported, the OC Data Center is no longer pursuing the Project Meridian 2 site and intends to return to pursuing the Project Meridian 1 site.⁷

⁷ Matthew Glowicki, "After community pushback, new location proposed for Oldham County data center. What to know," Louisville Courier-Journal (June 2, 2025), available at <https://www.courier-journal.com/story/news/local/2025/06/02/new-location-proposed-for-6-billion-data-center-in-oldham-county/83997706007/> (accessed June 3, 2025).

**KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY**

**Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025**

Case No. 2025-00045

Question No. 3-12

Responding Witness: Lonnie E. Bellar / Stuart A. Wilson

Q-3-12. Please refer to the Companies response to Staff 2-47. Please provide the supporting analyses used to develop the Mill Creek 2 study referenced in the Companies response to Staff 2-47.

A-3-12. See the supplemental response to KCA 1-4 filed on May 30, 2025.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Sierra Club's Supplemental Request for Information
Dated May 27, 2025

Case No. 2025-00045

Question No. 3-13

Responding Witness: Lonnie E. Bellar / Robert M. Conroy / David L. Tummonds
Counsel

- Q-3-13. Please refer to the Companies response to Staff 2-14(b) where the Companies said: "But it is also important to bear in mind that receiving a CPCN for a particular resource does not mean the Companies will proceed with it irrespective of changed circumstances. For example, the Companies did not construct the Ghent 2 SCR for which they received a CPCN in Case No. 2006-00206 after they determined they could comply with the relevant regulations by over-controlling for NOx at other units. Similarly, the Companies amended their application in Case No. 2014-00002 to remove their CPCN request for the Green River 5 NGCC unit after the departure of certain municipal customers. Thus, the Companies will act on any CPCN authority granted in this proceeding only insofar as it is reasonable and prudent to do so."
- a. At what point in Case No. 2006-00206 did the Companies determine not to move forward with the Ghent 2 SCR?
 - b. At the time that the Companies decided not to move forward with the Ghent 2 SCR, had the Companies incurred expenses related to the SCR?
 - c. At what point in Case No. 2014-00002 did the Companies determine not to move forward with the CPCN request for the Green River 5 NGCC?
 - d. At the time that the Companies decided not to move forward with the Green River 5 NGCC, had the Companies incurred expenses related to the NGCC?
 - e. The Companies provided project milestone information for Brown 12 and the Cane Run battery storage project in response to AG-KIUC 1-28 and 1-29. At what point in the project timeline would it be too late for the Companies to make a decision to not move forward with constructing Brown 12, Mill Creek 6, and the Cane Run battery storage project?
 - f. Please explain how the costs for project development and/or construction would be assigned to customers if the Companies decide not to pursue the

resources requested in this CPCN and costs have been incurred for the development of the requested projects.

A-3-13.

- a. See the response to PSC 3-24.
- b. Yes.
- c. See the Companies' August 22, 2014 Notice of Withdrawal in Case No. 2014-00002.⁸
- d. Yes.
- e. The response to AG-KIUC 1-28 and 1-29 note that the Companies expect to sign the equipment supply contract for the Cane Run battery storage project in first quarter 2026 and the EPC contracts for both Brown 12 and Mill Creek 6 in June 2026. After execution of these contracts, the Companies will have expended appreciable cost.

The January 2026 expectation for the Cane Run battery assumes the currently envisioned in service date and would push out to a later date commensurate with any delay in expected in service date. Similarly, when executing the Brown 12 and Mill Creek 6 EPC contract, the Companies will work to minimize initial at-risk cost associated with Mill Creek 6.

- f. The Companies object to this entire request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.⁹ Without waiving this objection, such matters would be addressed in future rate proceedings.

⁸ Available at https://psc.ky.gov/psccef/2014-00002/rick.lovekamp%40lge-ku.com/08222014115016/Notice_of_Withdrawal_2014-00002_08222014.pdf.

⁹ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

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Question No. 3-14

Responding Witness: Lonnie E. Bellar

Q-3-14. Please refer to the Direct Testimony of Witness Bellar at page 11, lines 13-14.

- a. Please provide an update on whether the Companies have entered into a Unit Reservation Agreement for Mill Creek 6.
- b. If the Companies have entered into a Unit Reservation Agreement, please provide the agreement.

A-3-14.

- a. See the response to JI 3.1.
- b. Not applicable.

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Question No. 3-15

Responding Witness: John Bevington / Robert M. Conroy / Elizabeth J. McFarland

Q-3-15. Please refer to the Companies response to Sierra Club 1-41(a) Attachment 1.

- a. Attachment 1 provides the Facilities Study results for a customer interconnection request. The study identifies costs for network upgrades and network interconnection facilities. Please explain if the customer requesting interconnection is responsible for paying the costs of the network upgrades and network interconnection facilities reported in this study.
- b. If the customer requesting interconnection is not responsible for all the costs, please explain which portion of the costs the customer requesting interconnection is responsible for.

A-3-15.

- a. See the response to AG-KIUC 2-38(d) and SREA 2-3.
- b. See the response to part (a).

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Question No. 3-16

Responding Witness: Robert M. Conroy / Elizabeth J. McFarland

Q-3-16. Please refer to the Companies response to Sierra Club 1-41(b) and the Confidential attachment provided with this response.

- a. Please explain if the costs provided in this attachment for the prospective customers are expected to be incurred by the customers requesting service.
- b. If not, please explain how the costs will be allocated to the customer requesting service.

A-3-16.

- a. See the response to Question No. 3-15.
- b. See the response to Question No. 3-15.

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Question No. 3-17

Responding Witness: John Bevington / Tim A. Jones

- Q-3-17. Please refer to the Companies response to Sierra Club 2-9. Please explain how the Companies determined the "Mid" probabilities assigned to each project phase.
- A-3-17. When the Companies developed the customer relationship management system in 2019, project stages were developed to categorize overall activity, plan for resources needed to support project development, and generally track progress. The probabilities assigned to each stage were determined by and agreed upon by the economic development team and its collective experience.

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Question No. 3-18

Responding Witness: John Bevington / Christopher M. Garrett

Q-3-18. Please refer to the Companies response to SREA 2-3(c), which said, "While no money is collected, the agreement requires the developer to provide security, in a form acceptable to the Company, that will protect the Company in the event the load does not come to fruition."

- a. Please explain what types of security are acceptable to the Company.
- b. The Companies provided a signed EPC agreement in response to Sierra Club 1-12(c)(i) in Docket No. 2024-00326. Please explain what type of security was provided by the party that signed this EPC agreement.

A-3-18.

- a. The Companies' current template EPC contract states acceptable forms of security include cash deposits, guarantees, and letters of credit. See the response to AG-KIUC 3-3(b).
- b. The Companies' EPC agreements have changed over time. The answer provided in SREA 2-3(c) was based on the Companies' template EPC agreement at the time of the response. Although the most recently executed EPC agreement for the Camp Ground project (executed November 8, 2024) does not contain the cited security provision, the Companies are currently negotiating a new amended agreement that does contain creditworthiness and security provisions appropriate to the increased potential financial commitment.

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Question No. 3-19

Responding Witness: John Bevington

Q-3-19. Please refer to the Companies response to AG-KIUC 2-22(a) and the additional 123 MW TSR for Camp Ground and the Companies response to Sierra Club 1-12(c)(i) in Docket No. 2024-00326. Please explain if the Companies have entered into any amendments to the EPC agreement.

A-3-19. See the response to Question No. 18(b).

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Case No. 2025-00045

Question No. 3-20

Responding Witness: Robert M. Conroy / Daniel Hawk / Elizabeth J. McFarland

- Q-3-20. Please refer to the Direct Testimony of Witness Conroy at page 5, lines 1-8, where there is a reference to the Companies constructing transmission facilities for the Ford BOSK Battery Park and pages 9-10 of the Order in Case No. 2022-00066 for the construction of those transmission facilities. The Order indicates the total project cost was estimated to be \$121 million and the expenses attributed to Ford were approximately \$39 million. Please explain how the Companies determined the expenses attributed to Ford.
- A-3-20. As explained in the application and testimony in Case No. 2022-00066, the approximately \$39 million attributed to Ford were for "behind the meter" assets located at the Glendale Industrial Substation Ford had requested and for which Ford will bear financial responsibility. As noted in the referenced Order at page 10, the expenses attributed to Ford "will be billed to Ford pursuant to the Excess Facilities Rider in KU's tariff." Ford is currently being billed for those facilities.

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Question No. 3-21

Responding Witness: Lonnie E. Bellar / Philip A. Imber / Stuart A. Wilson

Q-3-21. Please refer to LGE-KU response to Commission Staff 1-100(d):

- a. Confirm that Ghent 2 is not located in an area that is designated as being in nonattainment under the 2015 ozone NAAQS.
- b. If the 2024 Good Neighbor Plan is withdrawn, vacated, or found not to apply to Kentucky, please confirm that Ghent 2 would not be required to meet a NOx emission rate commensurate with SCR in the ozone season. If not confirmed, explain why.
- c. Confirm that, under the Good Neighbor Plan, Ghent 2 would not be required to meet an emission limit commensurate with SCR in the non-ozone season (typically, September through May). If not confirmed, explain why.
- d. If LGE-KU installs SCR at Ghent 2, would the Companies operate the SCR in the non-ozone season? If so, explain why.
- e. Did LGE-KU evaluate the additional operations and maintenance cost associated with running SCR year round? If so, please provide. If not, why.
- f. If the Good Neighbor Plan is withdrawn, vacated, or amended so that Ghent 2 is not required to meet an emission limit commensurate with SCR operation, does LGE-KU intend to operate the proposed SCR regardless? Please explain.
- g. Have the Companies conducted any analyses of Ghent 2's estimated emissions under the various compliance alternatives considered? If so, please provide all such analyses. If not, why?

A-3-21.

- a. Confirmed.

- b. Not confirmed. The EPA evaluates Kentucky as being a significant contributor to non-attainment of the 2015 Ozone National Ambient Air Quality Standard in downwind states. The EPA is obligated to reduce emissions in states with *significant contribution*. The Good Neighbor Plan is a *cross state air pollution rule* under the *good neighbor provision* of the Clean Air Act that was implemented to drive NO_x reductions in states that have a *significant impact* to the non-attainment of downwind states. If the Good Neighbor Plan does not survive, the EPA is still required to address significant contribution. SCR is Reasonably Available Control Technology for the reduction of NO_x emissions.
- c. Confirmed.
- d. Yes. LGE-KU anticipates annual operation of the Ghent 2 SCR to reduce overall fleet compliance risk and optimize the operations and maintenance costs and planning of the fleet. Further, SCR has co-benefits in mitigating mercury and marginally lowers the cost of mercury capture reagents. Not operating the SCR increases oxidation of sulfur dioxide leading to increased hydrated lime consumption. Not operating the SCR reduces catalyst life.
- e. Yes. See the response to PSC 1-33.
- f. Yes. See the response to part (d).
- g. The Companies have not completed any unit-specific analysis of Ghent 2. See the response to PSC 1-100(d). Expected Ghent 2 monthly ozone NO_x emissions with an SCR are available in the file “CONFIDENTIAL_out_emissmn.csv” provided in response to JI 1-22. Filtering column L (‘Units’) by ‘ton/lb’ provides emission quantities (as opposed to emission costs), and NO_x emissions are labeled as ‘NOX’ in column G and are in thousands of tons. Expected Ghent 2 monthly ozone NO_x emissions in scenarios without an SCR are zero because the Companies’ analysis assumes Ghent 2 would not be available during ozone season without an SCR.

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Question No. 3-22

Responding Witness: Philip A. Imber

- Q-3-22. Please refer to LGE-KU response to Joint Intervenor 2-22(b). Please confirm that there is no current "Reasonably Available Control Technology" requirement for Ghent 2.
- A-3-22. Confirmed. Ghent 2 does not have a Title V requirement to operate Reasonably Available Control Technology ("RACT") and the State Implementation Plan does not have a Ghent 2 specific RACT operating requirement. However, the EPA has evaluated Kentucky as a *significant contributor* to 2015 Ozone National Ambient Air Quality Standards non-attainment in downwind state(s). The EPA is obligated to address emissions reductions through the good neighbor provision of the Clean Air Act. The fact SCR is RACT is not disputed. Thus, a Ghent 2 SCR is necessary to ensure flexible operation of Ghent 2 in the ozone season.

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Question No. 3-23

Responding Witness: Lonnie E. Bellar / Christopher M. Garrett / Stuart A. Wilson

Q-3-23. Refer to LGE-KU response to Commission Staff 2-43.

- a. Provide the Companies' estimated useful life and all supporting documentation for SCR at Ghent 2.
- b. Provide the depreciation schedule for SCR at Ghent 2.
- c. Provide the Companies' expected retirement date for Ghent 2 with and without SCR.
- d. Provide the Companies estimated plant balance for Ghent 2 with and without SCR for 2025-2040.

A-3-23.

- a. For the purpose of calculating capital revenue requirements, the Companies assume a 10-year book life for the Ghent 2 SCR. For resource planning purposes, the Companies assume the SCR will operate through the remaining life of Ghent 2. The Companies do not have an expected retirement date for Ghent 2 for resource planning purposes.
- b. The Companies assumed a 10-year book life for the Ghent 2 SCR. See the response to part a.
- c. See the response to LMG-LFUGC 1-13. The Companies do not have an expected retirement date for Ghent 2 for resource planning purposes. The current retirement date for Ghent 2 is June 30, 2034, for accounting purposes.
- d. The Companies have not performed this calculation. The net book value of Ghent 2 is approximately \$171 million as of December 31, 2024, with annual depreciation expense of approximately \$21 million projected for 2025 exclusive of any additions.

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Question No. 3-24

Responding Witness: Philip A. Imber / David L. Tummonds

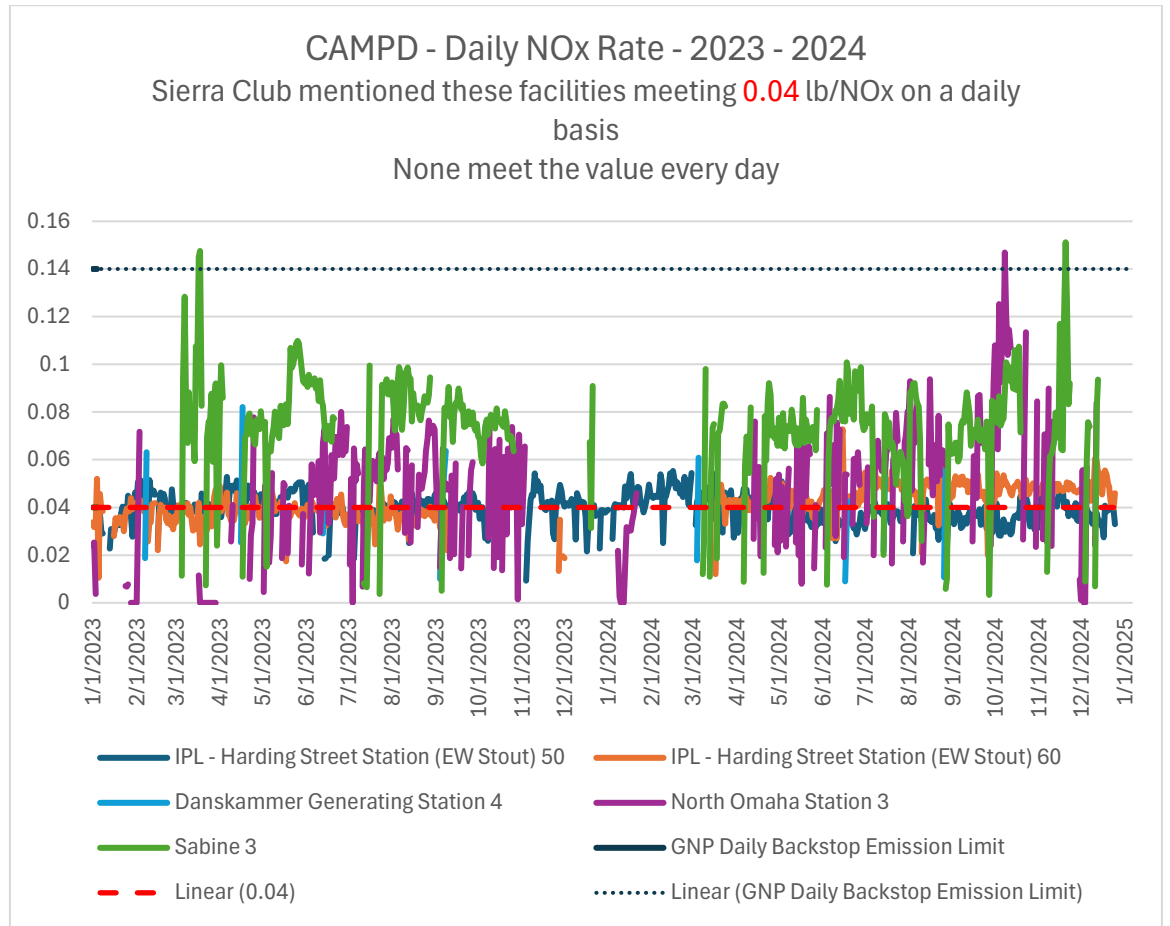
- Q-3-24. The Companies believe that if Ghent 2 were converted to a gas plant that it could not achieve an emission rate of 0.04 lb/MMBtu based on an analysis/study that was completed. Please produce that analysis/study.
- A-3-24. See attachment being provided in a separate file. The information requested is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.

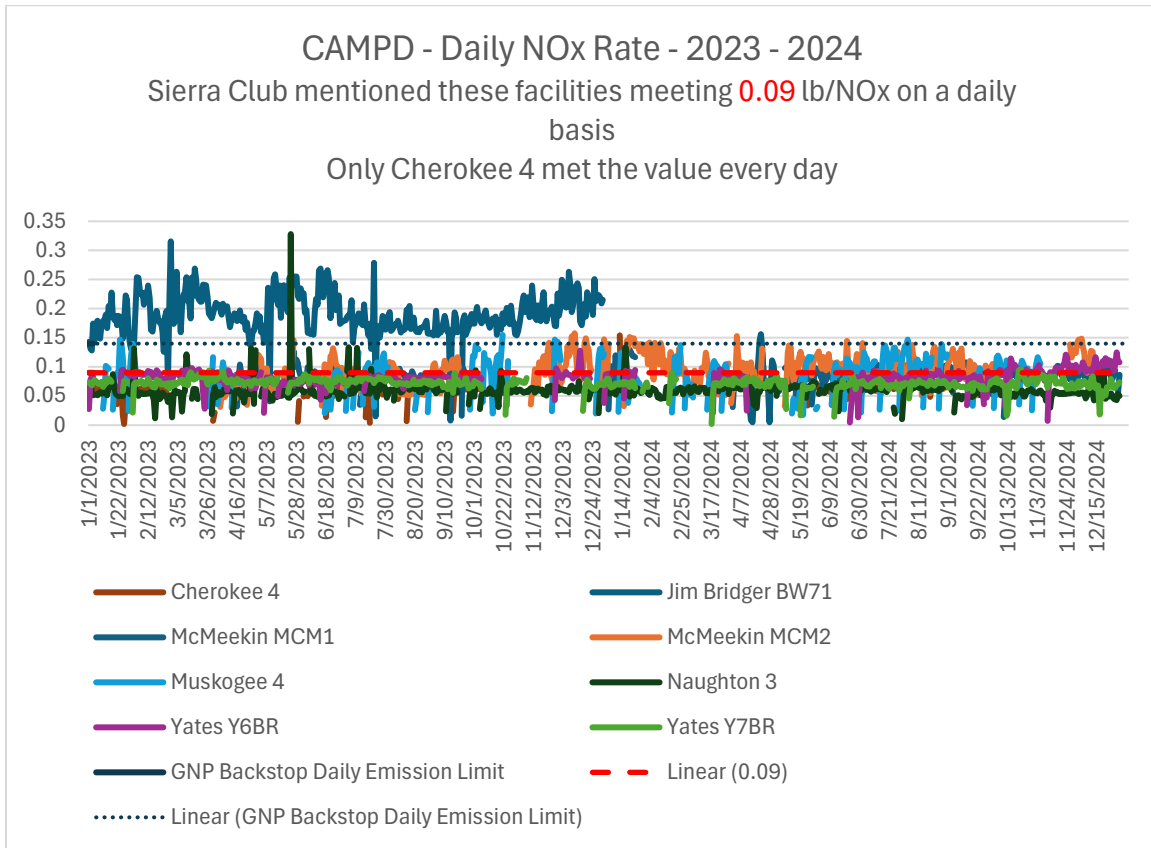
Beyond this report, Companies have evaluated NOx controls and their implementation within the electric generating industry. The Companies have attended conferences, engaged with the Electric Power Research Institute, communicated with engineering firms, communicated with original equipment manufacturers, evaluated EPA databases, and performed due diligence with peers. The Companies stand firm with their assessment that natural gas conversion units need post combustion controls to achieve the Good Neighbor Plan level Reasonably Achievable Control Technology emission rate of 0.04 lbs./MMBtu for new controls. The EPA National Electric Energy Data System (NEEDS) identifies several of the units referenced in the EFG report either have controls or are not designed to achieve the noted emissions levels:

Response to Question No. 3-24**Page 2 of 4****Imber / Tummonds**

Unit	Controls	Emission Rate
Harding Street Units 50	Low NOx Burner, Overfired Air, SNCR	0.035
Harding Street Unit 60	Low NOx Burner, Overfired Air, SNCR	0.036
North Omaha Station Unit 3	N/A	N/A
North Omaha Station Unit 4	N/A	0.15
North Omaha Station Unit 5	N/A	0.15
Sabine Unit 3	N/A	N/A
Sabine Unit 5	Low NOx Burner Technology w/ Closed-coupled OFA	0.864
Danskammer Unit 4	Low NOx Burner Technology w/ Closed-coupled/Separated OFA	0.1
Gulf Clean Energy Units 4	Low NOx Burner Technology	0.4
Gulf Clean Energy Unit 5	Low NOx Burner Technology	0.37
Cherokee Unit 4	N/A	N/A
Jim Bridger Unit 71	Low NOx Burner Technology w/ Closed-coupled OFA	0.19
McMeekin Units 1	Low NOx Burner with Separate Over Fire Air	0.07
McMeekin Units 2	Low NOx Burner with Separate Over Fire Air	0.08
Muskogee Unit 4	Low NOx Burner Technology w/ Closed-coupled/Separated OFA	0.1
Naughton Unit 3	Low NOx Burner with Separate Over Fire Air	0.058
Yates Units 6	Low NOx Burner with Separate Over Fire Air + Other	0.075
Yates Unit 7	Low NOx Burner with Separate Over Fire Air + Other	0.069

Further, Clean Air Markets Program Data also supports the Companies' position that these various units do not continuously achieve the Good Neighbor Plan level Reasonably Achievable Control Technology emission rate of 0.04 lbs./MMBtu for new controls.





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Question No. 3-25

Responding Witness: Robert M. Conroy / Counsel

Q-3-25. What measures are being taken to ensure that costs and risks associated with potential large new loads are not being passed onto existing customers?

A-3-25. The Companies object to this entire request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.¹⁰ Without waiving this objection, the Companies have proposed an Extremely High Load Factor rate schedule ("Rate EHLF") in the base rate applications the Companies filed on May 30, 2025, in Case Nos. 2025-00113 and 2025-00114. Rate EHLF has: (1) an increased minimum demand charge ratchet (80% of contract capacity); (2) an extended contract term requirement and capacity change and termination provisions that ensure recovery of at least fifteen years of non-fuel revenues based on the original contract capacity requirement; and (3) a collateral posting obligation for at least a full year of non-fuel revenue, which must be posted at the time of service contract signing. To make the effects of these terms more concrete, a 402 MW LG&E Rate EHLF customer meeting the enhanced creditworthiness requirements would need to post collateral of more than \$100 million at the time of contract signing. That same customer would have a 15-year *minimum* demand charge obligation of about \$1.1 billion, and the same customer would pay almost \$1.3 billion in demand charges over 15 years if it had

¹⁰ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

an actual demand of 95% of its contract demand just once every 12 months—a reasonable expectation for a 95% load factor customer.¹¹

See also the responses to PSC 1-28(b) and (c), PSC 1-96, PSC 1-104, PSC 2-32, PSC 2-40, LMG-LFUCG 1-35, SC 1-28, and SC 2-29. See also the responses in Case No. 2024-00326 to KCA 2-5, SC 2-22, and JI 2-25(b).

¹¹ LG&E's proposed EHLF demand charge is \$18.44/kVA-month. Applying that monthly rate to 402,000 kVA of monthly contract demand for 180 months and reducing it for the 80% minimum demand ratchet results in \$1,067,454,720, i.e., about \$1.1 billion. If the same customer had a measured demand of 95% at least once per year, the total 15-year demand charge would increase to almost \$1.3 billion.

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Question No. 3-26

Responding Witness: Robert M. Conroy / Counsel

Q-3-26. What financial safeguards are in place to ensure that debts or financial obligations do not adversely impact existing ratepayers?

A-3-26. The Companies object to this entire request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.¹² Without waiving this objection, this request is too vague to provide a response; it is unclear to which or whose "debts or financial obligations" this request intends to refer.

¹² See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

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Question No. 3-27

Responding Witness: Robert M. Conroy / Counsel

Q-3-27. Will existing customers be subsidizing infrastructure investments or operational costs in any way? Why or why not? How is this guaranteed?

A-3-27. The Companies object to this entire request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.¹³ Without waiving this objection, this request is too vague to provide a response; it is unclear to which or whose "infrastructure investments or operational costs" this request intends to refer.

¹³ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

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Question No. 3-28

Responding Witness: Robert M. Conroy

Q-3-28. What is the plan for dealing with stranded assets if large load customers do not materialize or leave the queue or contract for less service than projected?

A-3-28. See the response to Question No. 3-25.

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Question No. 3-29

Responding Witness: Robert M. Conroy

Q-3-29. What contingency plans are in place to ensure that demand from large load customers that does not materialize does not adversely affect existing customers?

A-3-29. See the responses to Question Nos. 3-25 and 3-28.

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Question No. 3-30

Responding Witness: Robert M. Conroy

Q-3-30. How is the utility assuring that large load customers will remain in the region long term? Will the utility require new large load customers pay exit fees to ensure that assets built to serve them do not become stranded costs passed to other ratepayers?

A-3-30. See the response to Question No. 3-25.

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Question No. 3-31

Responding Witness: Robert M. Conroy / Counsel

Q-3-31. Are existing customers adequately represented and educated on the benefits and risks presented by new large load customers?

A-3-31. The Companies object to this entire request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission's legal standard of review of a request for a certificate of public convenience and necessity ("CPCN") stated in Case No. 2022-00402.¹⁴ Without waiving this objection, the Attorney General has a statutory right and obligation to represent all customers before the Commission;¹⁵ the Attorney General and other parties are interveners in this proceeding.

¹⁴ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) ("To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... 'Need' requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... 'Wasteful duplication' is defined as 'an excess of capacity over need' and 'an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.' ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.") (internal citations omitted).

¹⁵ KRS 367.150(8).

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Question No. 3-32

Responding Witness: Robert M. Conroy

Q-3-32. How are existing customers and ratepayers being protected from higher energy costs, given the large increase in demand?

A-3-32. See the response to Question No. 3-25.

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Question No. 3-33

Responding Witness: Robert M. Conroy / Counsel

Q-3-33. What are the projected possible economic benefits (e.g., job creation, tax revenue) of approving this request? Are they focused in specific counties, or are they spread evenly across areas served by the utility?

A-3-33. The Companies assume the “possible economic benefits (e.g., job creation, tax revenue)” to which this request refers are those other than rate- or service-related impacts given the number of questions already posed about those matters. Therefore, the Companies object to this entire request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission’s legal standard of review of a request for a certificate of public convenience and necessity (“CPCN”) stated in Case No. 2022-00402.¹⁶ Without waiving this objection, the Companies are requesting CPCNs in this proceeding to help the Companies provide safe and reliable service at the lowest reasonable cost to meet *all* customers’ projected needs consistent with the Companies’ obligation to serve *all* customers.

¹⁶ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) (“To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... ‘Need’ requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... ‘Wasteful duplication’ is defined as ‘an excess of capacity over need’ and ‘an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.’ ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.”) (internal citations omitted).

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Case No. 2025-00045

Question No. 3-34

Responding Witness: Robert M. Conroy / Counsel

Q-3-34. Have the Companies evaluated possible negative economic impacts to existing customers if the CPCN request is approved?

A-3-34. The Companies assume the “possible negative economic impacts to existing customers” to which this request refers are those other than rate- or service-related impacts given the number of questions already posed about those matters. Therefore, the Companies object to this entire request as irrelevant to the subject matter of this proceeding under KRS 278.020(1) and based on the Commission’s legal standard of review of a request for a certificate of public convenience and necessity (“CPCN”) stated in Case No. 2022-00402.¹⁷ Without waiving this objection, the Companies are requesting CPCNs in this proceeding to help the Companies provide safe and reliable service at the lowest reasonable cost to meet *all* customers’ projected needs consistent with the Companies’ obligation to serve *all* customers.

¹⁷ See, e.g., *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 Generation Unit Retirements*, Case No. 2022-00402, Order at 10-12 (Ky. PSC Nov. 6, 2023) (“To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication. ... ‘Need’ requires: [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated. ... ‘Wasteful duplication’ is defined as ‘an excess of capacity over need’ and ‘an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.’ ... The fundamental principle of reasonable least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.”) (internal citations omitted).

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Question No. 3-35

Responding Witness: Daniel Hawk / Elizabeth J. McFarland

- Q-3-35. How is the utility coordinating with stakeholders to address transmission network performance deficiencies and assess potential network upgrades required for new large load interconnections?
- A-3-35. The Companies' Independent Transmission Organization ("ITO") holds two stakeholder meetings each year to review, among other things, Transmission Service Requests, Generator Interconnection Requests, and the annual Transmission Expansion Plan ("TEP") results. At each of those meetings, stakeholders are encouraged to provide feedback, but stakeholder input is welcome at any point. Separately, an independent Stakeholder Planning Committee ("SPC") has been established; this committee is open to all interested parties and provides a forum to allow members the opportunity to comment on the planning process. Additionally, the Companies' are sponsors of the Southeastern Regional Transmission Planning ("SERTP") group and routinely engages with stakeholders related to regional planning.

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Question No. 3-36

Responding Witness: Daniel Hawk / Elizabeth J. McFarland

Q-3-36. What alternative solutions are considered as part of network upgrades beyond transmission infrastructure investments?

- a. What advanced technologies (i.e., grid forming (“GFM”) inverter technology, FACTS devices, high voltage DC (“HVDC”) technologies, powerflow control, etc.) are included in these assessments?

A-3-36.

- a. The document LGE_KU_Alternative_Transmission_Technologies.pdf, which is publicly posted on our OASIS site, discusses alternative transmission technologies that may be considered as part of transmission planning. While this document was initially developed for use in analyzing Generator Interconnection requests, these same technologies are considered throughout our transmission planning process. (https://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/LGE_KU_Alternative_Transmission_Technologies.pdf)

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Question No. 3-37

Responding Witness: Tim A. Jones

- Q-3-37. Please provide any national forecasts of data center growth that the Companies used or relied on in evaluating the likelihood of data center load growth in their service territory.
- a. If any of those forecasts include specific projections of data center load growth in Kentucky, please identify that by report and page number.
 - b. If the Companies are aware of national forecasts for data center growth, but did not rely on those forecasts, please explain why.
- A-3-37. The Companies relied on the information from their economic development pipeline of data center projects to create the data center load forecast. The Companies used national forecasts of data center load to assess the reasonableness of their load forecasts, as discussed in Volume I of the IRP at Section 5.3.(1) and footnote 23 on page 5-16, but these national forecasts did not directly affect the load forecast.
- a. The EPRI report referenced in footnote 23 from the response above contains projections on Kentucky on page 28. Note that this report is a year old now, and their Higher-growth scenario for Kentucky is below the annual MWh that Camp Ground alone would use based upon the TSRs that have been filed for the site. Therefore, it appears likely that EPRI's projections of Kentucky data center load from this report are too low.
 - b. See the responses above.

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Question No. 3-38

Responding Witness: Charles R. Schram

- Q-3-38. Please explain whether the potential data centers' electricity load will fluctuate, and to what extent. Please specify both in terms of speed of fluctuations and the amount of electricity used. If the answer depends on the type of business the data center serves (e.g., artificial intelligence, crypto currency, other, etc.) please provide the answer for each type of data center that the Companies expect may locate in its service territory during the IRP time period.
- A-3-38. See the response to Question No. 3-39 and 3-40. Data centers have high load factors, effectively ruling out significant, ongoing fluctuations. The total amounts of electricity used by a data center (or other load) can be calculated by the size in MW multiplied by time and load factor.

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Question No. 3-39

Responding Witness: Robert M. Conroy / Elizabeth J. McFarland

Q-3-39. Do the fluctuations identified in response to Question 3-38 above, pose a risk to the grid? If so, please explain the nature of the risk and the Companies' assessment of the likelihood of such a risk occurring.

A-3-39. The Transmission Service Request applications submitted for potential data centers thus far have not indicated any type of large load fluctuations when describing the nature of the load and operating characteristics. If additional information becomes available at a later time that there may be large load fluctuations, then LG&E/KU Transmission would perform the necessary studies to ensure there is no risk to the grid.

The Companies also have retail tariff provisions requiring customers to take all necessary measures—at the customer's expense—to ensure their use of the Companies' service does not adversely impact the Companies' ability to serve or service quality.¹⁸

¹⁸ See, e.g., Standard Rate Rider IL, Intermittent Loads Rider, Kentucky Utilities Company, P.S.C. No. 20, Original Sheet Nos. 65 – 65.1; Standard Rate Rider IL, Intermittent Loads Rider, Louisville Gas and Electric Company, P.S.C. Electric No. 13, Original Sheet Nos. 65 – 65.1; Terms and Conditions: Customer Responsibilities, Power Factor, Kentucky Utilities Company, P.S.C. No. 20, Original Sheet No. 97.2; Terms and Conditions: Customer Responsibilities, Power Factor, Louisville Gas and Electric Company, P.S.C. Electric No. 13, Original Sheet No. 97.2.

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Question No. 3-40

Responding Witness: Charles R. Schram

- Q-3-40. How do the ramp rates for data centers compare to the ramp rates for the Companies' existing customers?
- A-3-40. Arc furnaces on the Companies' system routinely ramp approximately 160 MW nearly instantaneously. The Companies' system as a whole routinely experiences and serves similar system changes to those of the arc furnaces. The Companies have an existing crypto mining customer whose hourly and 15-minute load data show an approximate 94% load factor and low volatility as measured by their load's standard deviation divided by the mean of their load, so the existing customer most similar to a data center on the Companies' system today does not experience large fluctuations.

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Question No. 3-41

Responding Witness: Charles R. Schram

Q-3-41. Are the Companies aware of whether any fossil fueled resource can match anticipated ramp rates for data centers?

A-3-41. The Companies' Cane Run 7 NGCC is capable of 30 MW/minute ramp rate. Brown 12, Mill Creek 5, and Mill Creek 6 are expected to have ramp rates of greater than 70 MW/minute. The Companies are not aware of any data center power ramp rate requirements that are more rapid than these levels.

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Question No. 3-42

Responding Witness: Robert M. Conroy

Q-3-42. Will the Companies impose any limit on the ramp rate for data centers that operate in its Kentucky service territories?

A-3-42. No. See the responses to Question Nos. 3-38 and 3-40.