

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 SECOND REQUEST FOR INFORMATION
DATED MAY 2, 2025

FILED: MAY 16, 2025

VERIFICATION

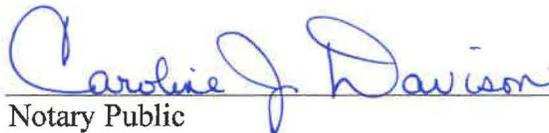
COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Senior Vice President Engineering and Construction for PPL Services Corporation and he provides services to Louisville Gas and Electric Company and Kentucky Utilities Company, and 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 12th day of May 2025.



Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

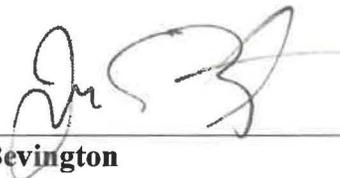
January 22, 2027



VERIFICATION

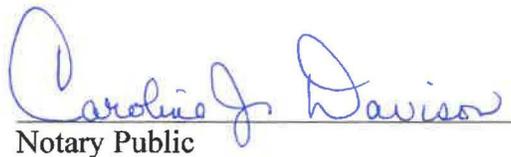
COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

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 Louisville Gas and Electric Company and Kentucky Utilities Company, and 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 12th day of May 2025.



Notary Public

Notary Public ID No. KINP63286

My Commission Expires:

January 22, 2027



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, and 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

Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 13th day of May 2025.

Tammy J. Ely

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, and 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 13th day of May 2025.



Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Tim A. Jones**, being duly sworn, deposes and says that he is Senior Manager – Sales Analysis and Forecasting for LG&E and KU Services Company, and 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.

T. A. Jones

Tim A. Jones

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 13th day of May 2025.

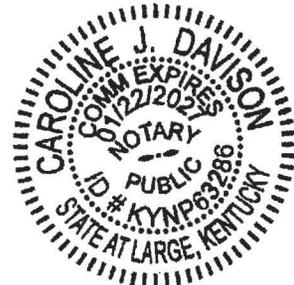
Caroline J. Davison

Notary Public

Notary Public ID No. KYNP62286

My Commission Expires:

January 22, 2027



**KENTUCKY UTILITIES COMPANY
AND
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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-1

Responding Witness: John Bevington / Tim A. Jones

Q-2-1. Please refer to the Direct Testimony of Witness Wilson at page 7 in Case No. 2022-00402 where there is a reference to the BlueOval load being 260 MW in the summer and 225 MW in the winter, and page 2 of Witness Schram at page 8 where there is a reference to 125 MW of Phase One for the BlueOval SK Battery Park.

- a. Please confirm if the 260 MW summer/225 MW winter load for BlueOval included in Case No. 2022-00402 represents the total load of phase one and phase two.
- b. Please confirm if the BlueOval's contract for electric service is for the 260 summer and 225 MW winter load.
- c. Please explain if the phase two load will result from expansion at the facility.

A-2-1.

- a. Confirmed.
- b. The contract specifies only one annual MW value that grows as site production is anticipated to grow. The first phase is for 140 MW. The addition of the second phase brings the total to 260 MW.
- c. The building for phase two has already been constructed. The phase two load ultimately will result from growth in consumer demand for EVs.

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Case No. 2025-00045

Question No. 2-2

Responding Witness: Tim A. Jones

Q-2-2. Please refer to the response to Sierra Club 1-7 and column F in the workpaper named "2024IRP_Mid_Econ_Dev_Requirements".

- a. Please reconcile the values and dates reflected in the workpaper with the response to Sierra Club 1-7 that says the 120 MW for Blue Oval is assumed to start in July 2028.
- b. Please explain if the workpaper only represents phase one for BlueOval.

A-2-2.

- a. The IRP Mid load forecast excluded the second phase of BlueOval. The Companies assume the question intended to reference column G in the workpaper named "2024IRP_Mid_Econ_Dev_Requirements." Column G represents only phase one for BlueOval while the response to SC 1-7 refers to only phase two of BlueOval.
- b. See response to part (a).

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**Response to Sierra Club's Second Request for Information
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Case No. 2025-00045

Question No. 2-3

Responding Witness: Stuart A. Wilson

Q-2-3. Please refer to Exhibit SAW-1, Table 22 at page 45.

- a. Please explain if the Companies evaluated a scenario with 400 MW of BESS at Cane Run and 400 MW of BESS at Ghent.
 - i. If not, please explain why not.

A-2-3.

- a. No, the Companies did not evaluate transmission costs for a scenario with 400 MW of BESS at Cane Run and 400 MW of BESS at Ghent.
 - i. The purpose of this transmission analysis was to determine whether the optimal location for the first 400 MW of BESS was Cane Run or Ghent, with the understanding that additional MW above the first 400 MW would go to the other location.

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Case No. 2025-00045

Question No. 2-4

Responding Witness: Tim A. Jones

- Q-2-4. Please refer to Exhibit SAW-1. Please provide the supporting workpaper, with all formulas and links intact, used to develop Figure 2 at page 11.
- A-2-4. See Exhibit TAJ-2 at "Load_Forecasting\CPCN\Work\AWJ_JDL_Charts.xlsx."

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**Response to Sierra Club's Second Request for Information
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Case No. 2025-00045

Question No. 2-5

Responding Witness: Tim A. Jones / Stuart A. Wilson

Q-2-5. Please refer to Exhibit SAW-1, Figure 2 at page 11, the hourly load modeled in PLEXOS contained in the file named "Load1750Block", and workpapers named "Data_Center_1_Phase_2_Included_MA_Shaping", "Data_Center_3_MA_Shaping", and "Data_Center_2_MA_Shaping".

- a. Please reconcile the difference in the load ramp rate reflected in the data center workpapers with the load forecast shown in Figure 2 and what is modeled in PLEXOS.
- b. Please provide the supporting workpaper for the file named "Load1750Block" that shows the hourly load included for data centers for the planning period.

A-2-5.

- a. For the Stage One analysis, to ensure an optimal mix of resources for serving economic development load, the Companies developed resource plans with no unit availability constraints and with the assumption that economic development loads are added in 2030. This latter assumption causes all of the economic development load that is added gradually through 2032 in the CPCN load forecast to be added in 2030. With the understanding that the PLEXOS analysis would begin in 2030 and ignore the load forecast prior to 2030, the most straight-forward way administratively to create the Stage One load forecasts was to add all of the economic development load in 2028. Therefore, in the PLEXOS load forecast input files for Stage One, all economic development load is added in 2028.
- b. See Exhibit TAJ-2 at "Load_Forecasting\CPCN\Hourly_Forecast\Scenarios".

See also the excel files located at Exhibit TAJ-2 at "Load_Forecasting\Electric_Load_Forecast\Electric\Forecasts\CONFIDENTIAL_Major_Accounts\Analysis".

**KENTUCKY UTILITIES COMPANY
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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-6

Responding Witness: Stuart A. Wilson

- Q-2-6. Please refer to Appendix B in Exhibit SAW-1 and the PLEXOS database.
- a. Please explain if all solar bids reported in Exhibit SAW-1 were modeled in PLEXOS.
 - i. If any bids were excluded from being modeled in PLEXOS, please explain why they were not modeled in PLEXOS
 - b. Please provide a key that maps the bids reported in Exhibit SAW-1 to the generator names in the PLEXOS database.

A-2-6.

- a. All projects in Table 29 in Exhibit SAW-1 Appendix B were modeled in PLEXOS.
 - i. All RFP proposals are listed in Table 30 of Exhibit SAW-1 Appendix B. The process by which the Companies screened this list to arrive at the proposals in Table 29 is described in Section 3.1 of Exhibit SAW-1.
- b. See Exhibit SAW-2 at "Screening\20250201_RFPResponses_2025CPCN_0336.xlsx".

**KENTUCKY UTILITIES COMPANY
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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-7

Responding Witness: Stuart A. Wilson

Q-2-7. Please refer to Exhibit SAW-1 at pages 34-35.

- a. For the Stage Three evaluation in SERVM, please explain if the Companies only evaluated a load forecast in SERVM that assumes the data center load growth in the 2025 CPCN load forecast.
- b. Please provide supporting workpapers, with all formulas and links intact, used to develop Table 14.
 - i. If there are no workpapers, please provide a reference to the study names in SERVM that map to the results shown in Table 14.
- c. Please explain if the results in Table 14 are being developed to maintain a Loss of Load Expectation ("LOLE") threshold of less than 1 day in 10 years or .1/year (i.e. that the Companies can only add 630 MW of data center load to the system between 2028-2029 with the BESS addition of 400 MW to maintain a .1 LOLE)?

A-2-7.

- a. The Stage Three analysis determined the amount of data center load that the Companies can serve reliably with the proposed resources, as shown in Column A of Table 14. The CPCN load forecast is shown in Column B of Table 14 for comparison purposes only.
- b. Workpapers were only provided for Column A of Table 14. Specifically, for the value of 630, see Exhibit SAW-2 at file path "SERVM/Outputs_SERVMResults/0CCSolar400B_CPCNLoadMinus1120.xlsx." For the value of 1,190, see Exhibit SAW-2 at file path "SERVM/Outputs_SERVMResults/1CCSolar400B_CPCNLoadMinus560.xlsx." For the value of 1,750, see Exhibit SAW-2 at file path

“SERVM/Outputs_SERVMResults/28Portfolio_CPCNLoad_2CC_Solar_300B_400B.xlsx.” In the file, the “400B” case was used.

- i. The study names in SERVM can be seen in the files listed above.
- c. Yes, the values in Column A of Table 14 were determined to maintain a 1-in-10 LOLE.

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**Response to Sierra Club's Second Request for Information
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Case No. 2025-00045

Question No. 2-8

Responding Witness: Stuart A. Wilson

Q-2-8. Please refer to the SERVM database. Please provide a key for the study names performed as part of the SERVM analysis referenced in Exhibit SAW-1 at pages 33 – 35.

A-2-8. See the table below.

SERVM Results at Page 33 - 35	SERVM Study Name
0.62 in Table 13	25CPCNLoad_Solar_600B
0.67 in Table 13	25CPCNLoad_Solar_500B
1.07 in Table 13	25CPCNLoad_Solar_400B
1.25 in Table 13	25CPCNLoad_Solar_300B
630 in Table 14	0CCSoalr400B_CPMinus1120
1,190 in Table 14	1CCSolar400B_CPMinus560
1,750 in Table 14	25CPCNLoad_Solar_400B

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**Response to Sierra Club's Second Request for Information
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Case No. 2025-00045

Question No. 2-9

Responding Witness: John Bevington / Tim A. Jones

Q-2-9. Please refer to the Companies response to AG-KIUC 1-35a and the file named "17-AG-KIUC-DR1_LGE_KU_Attach_to_Q35(a)".

- a. Please explain what the "Low", "Mid" and "High" probabilities represent in the worksheet named "Project Map".
- b. Please explain how each of these probabilities is developed and how the Companies use the probabilities.

A-2-9.

- a. The "Low", "Mid", and "High" probabilities represent a range of likelihoods that could apply to each project based upon the stage assigned by Mr. Bevington's team. The ranges are consistent for each stage.
- b. The probability ranges were developed based upon each project's assigned stage. The Companies assumed the "Mid" probabilities for:
 - Imminent projects to be 80%,
 - Prospect projects to be 50%,
 - Suspect projects to be 20%, and
 - Inquiry projects to be 10%.

For Imminent and Prospect projects, the "Low" and "High" probabilities were calculated by subtracting and adding 20% to the "Mid" probability, respectively. For Suspect projects, the "Low" and "High" probabilities were calculated by subtracting and adding 15% to the "Mid" probability. For Inquiry projects, the "Low" and "High" probabilities were calculated by subtracting and adding 10% to the "Mid" probability. The midpoint probability of all stages is consistent with probabilities from a report the economic development team provided in response to KIUC 1-33(a) and updated in response to PSC 2-17(g).

The Companies then applied these probabilities to each economic development project's estimated monthly MW ramp schedule. The Companies then use the expected value (or probability-and-load-weighted results) to obtain a range of possible MW ramp and total economic development load scenarios.

**KENTUCKY UTILITIES COMPANY
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**Response to Sierra Club's Second Request for Information
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Case No. 2025-00045

Question No. 2-10

Responding Witness: John Bevington

Q-2-10. Please refer to the Companies' response to AG KIUC 1-45a.

- a. Please explain what each status designation means.
- b. Please explain what happens when the status designation is "Expired".

A-2-10.

- a. See the response to PSC 2-52.
- b. See the response to PSC 2-52 in particular the bullet pertaining to "expired."

**KENTUCKY UTILITIES COMPANY
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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-11

Responding Witness: Robert M. Conroy

Q-2-11. Please refer to page 11 of the Direct Testimony of Witness Bellar and the discussion of the reservation agreement with GE for Brown 12.

- a. Have the Companies evaluated the rate impact of the reservation agreement?
 - i. If yes, please provide all supporting workpapers, with formulas and links intact, used to develop that analysis.

A-2-11.

- a. No.
 - i. Not applicable.

**KENTUCKY UTILITIES COMPANY
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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-12

Responding Witness: John Bevington / Tim A. Jones

Q-2-12. Sierra Club 1-10 (c) requested "For each new customer included in the 8,000 MW of load potential, please provide the peak demand, ramp schedule, annual energy requirements, load factor, hourly shape, anticipated date the customer expects to receive service, the commercial activity of the customer (i.e. data center, cryptocurrency, or EV manufacturing), and whether the customer has entered into any agreements or contracts with the Companies".

In response, the Companies said, "See the response to AG-KIUC 1-33(a). The Companies do not track some of the requested information, and in many cases the projects do not provide some of the requested information during their decision-making process." With respect to that response please answer the following:

- a. Of the information listed in the question, the attachment to AG-KIUC 1-33(a) contains only the electric peak and a high level categorization of the customer's activity, e.g., "Opportunity Name". Is the Company saying that of the requested information, only these two information types are collected? If not, why were the other categories of information not provided?
- b. If the Companies collect any of the requested information other than electric peak and opportunity name, please provide that information.
- c. If the Companies do not collect any of the requested information other than electric peak and opportunity name, please explain how the Companies could translate these requests into an annual forecast of large loads, load factor, and annual energy shape used in the load forecast.
- d. Do the Companies have any information about the track record of potential large load customers in building other, similar facilities? If so, please provide that information.

- e. Do the Companies have any information about whether potential large load customers are sufficiently capitalized to build their proposed facilities? If so, please provide that information.

A-2-12.

- a. No. Helping a new customer locate in the Companies' service territories is a lengthy, highly detailed process that is driven by the needs of the client. The Companies may be dealing with international customers, customers that are modifying their plans throughout a process, or in some cases, customers more focused on an aspect of site selection such as a site, workforce, or proximities to customers before they provide specifics. In other cases, customers that are planning expansions are doing so based on the efficiency of an operation that exists in Kentucky and the decision makers do not consider all the details requested in this question. Finally, even when the Companies receive information from a customer about a planned new location or expansion, the resulting electric load may be very different than what is communicated during the decision-making process. The Companies have endeavored to supply as much information as is known to satisfy the request, but the absence of information for some of the projects listed is not an indication of project reality. See the response to PSC 2-17 (g).
- b. See the response to PSC 2-17(g).
- c. The Companies' load forecasting process derives inputs from many sources, including discussions with the economic development team, to develop the annual forecast of large loads, load factor, and annual energy shape used in the load forecast.
- d. No.
- e. No.

**KENTUCKY UTILITIES COMPANY
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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-13

Responding Witness: John Bevington

Q-2-13. Please refer to the attachment to AG-KIUC 1-33(a).

- a. Please provide the definitions for each possible category in the "Opportunity Name" column.
- b. For each project listed as "imminent", what information leads Companies to the conclusion that the project "imminent"?
- c. Do the Companies collect any information about the locations of these loads? If so, please provide that information.

A-2-13.

- a. Opportunity Name defined:
 - Customer Expansion – Electric: this is an existing customer of the Companies that is expanding its electric service.
 - Customer Expansion – Electric & Natural Gas: this is an existing customer of the Companies that is expanding its electric and gas service.
 - Customer Expansion – Gas: this is an existing customer of the Companies that is expanding its gas service.
 - Data Center – Economic Development: this is a potential new Data center customer requesting service of the Companies.
 - Economic Development Project: this is a potential new customer requesting service of the Companies.
 - New Customer – This is a new customer that the Key Account Management team is working with to discuss potential new customer needs.
- b. See the response to PSC 1-18(c).
- c. Yes. See the response to PSC 2-17(g).

**KENTUCKY UTILITIES COMPANY
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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-14

Responding Witness: Lonnie E. Bellar / Counsel

Q-2-14. Please refer to the response to Sierra Club 1-27(a). In that response, the Companies state that the purposes of KRS 154.20-220 to 154.20-229 are to:

- (a) Provide incentives for an approved company with a qualified data center project;
- (b) Encourage the location of data centers within the Commonwealth; and
- (c) Advance the public purposes of the:
 - 1. Creation of new jobs that would not exist within the Commonwealth;
 - 2. Creation of new sources of tax revenues for the support of public services provided by the Commonwealth;
 - 3. Improvement in the quality of life for Kentucky citizens through the creation of sustainable jobs with higher salaries; and
 - 4. Provision of an economic stimulus to the Commonwealth.

With respect to this statement, please describe and provide any information that the Companies collect from new, large loads that identify the number of new jobs they create, the amount of tax revenue they would generate, the salaries associated with their jobs, and/or any other economic stimulus from these customers locating in the Commonwealth. If the Companies do not collect this information, please explain why not and how the new loads comply with KRS 154.20-220 to 154.20-229.

A-2-14. The Companies object to this request insofar as it calls for a legal opinion or conclusion. Without waiving that objection, the Companies first note that the Kentucky General Assembly, not the Companies, stated the purposes of KRS 154.20-220 to 154.20-229 in KRS 154.20-222.

Second, as stated in the Direct Testimony of John Bevington, the purpose of addressing these statutory provisions, Kentucky public officials' statements about the benefits of data centers, and benefits of data centers in other areas was "simply to point out the positives of this economic development occurring in Kentucky, which, being consistent with the General Assembly's stated aims regarding data centers, suggest that Kentucky will continue its efforts to attract data centers, with resulting additional load for the Companies to serve."¹

The Companies do track jobs and investment information provided by economic development prospects. See the response to PSC 2-17(g).

¹ Bevington Direct at 11 ln. 13-17; *see generally id.* at 6-11.

KENTUCKY UTILITIES COMPANY
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Response to Sierra Club's Second Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 2-15

**Responding Witness: Lonnie E. Bellar / John Bevington / Daniel Hawk /
Elizabeth J. McFarland / Charles R. Schram**

Q-2-15. Please refer to the response to SC 1-28(c), which states, "The Companies disagree with the premise of the question. The Companies do not anticipate that projected data center loads, though large, will be "dynamic"; rather, they anticipate high and steady loads, as reflected in the Companies' 95% load factor projection. Moreover, the Companies are well versed in and equipped to address rapid and significant demand changes, having served large arc furnace loads for decades." With respect to this response, please answer the following:

- a. Are the Companies aware of any NERC documents that would support the presumption that data centers are not dynamic? If so, please provide those documents.
- b. Are the Companies aware of any data centers currently online in the U.S. that have not operated at "steady loads"? If so, please describe the Companies' knowledge of these data centers.
- c. If the answer to either subpart a or b is "yes", why would the Companies expect data centers interconnecting to their systems to not be dynamic and operate as "steady loads"? Explain in detail.
- d. Based on the Companies' experience serving large arc furnace loads, what steps would the Companies take to "address rapid and significant demand changes" associated with data centers, should they occur?
- e. Is it the Companies' position that it can address any impacts from rapid and significant demand changes after the fact of data centers coming online? Explain your answer in detail.

A-2-15.

- a. No.

- b. No.
- c. Not applicable.
- d. As stated in response to SC 1-28(c), the Companies do not anticipate that projected data center loads, though large, will be “dynamic” or have large fluctuations similar to an arc furnace; rather, they anticipate high and steady loads, as reflected in the Companies’ 95% load factor projection. The Companies’ system load fluctuates every moment, and the Companies are well prepared to maintain reliable service through such fluctuations. But again, the Companies do not anticipate significant data center load fluctuations, which would be inconsistent with a 95% load factor.
- e. See the response to part (d).

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**Response to Sierra Club's Second Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 2-16

Responding Witness: John Bevington

Q-2-16. Please refer to the responses to PSC 1-18 and to SC 1-35.

- a. The Companies use the terms “active request”, “advanced stages”, “imminent”, “prospect”, “suspect phase”, and “inquiry”. Please explain how these terms relate to each term, e.g., is “prospect” a subset of an “active request”?
- b. For the request that is in an active stage, are the reference “formal studies” to “determine transmission capacity at a project site” the system impact and/or facilities studies? If not, to what studies does this refer?
- c. What do the Companies mean by “incentive negotiation”?

A-2-16.

- a. See the response to JI 1-16(c) in Case No. 2024-00326. For any project that the Companies are actively working, a distinct project stage is assigned. See the response to PSC 1-18(c) for a definition of the project stages.
- b. Yes.
- c. An economic development project may seek incentives from the state, local communities, or other taxing jurisdiction for inducement to locate in a particular area. Often, this involves some level of negotiation between the entities mentioned and the client to find the optimal level and type of incentive package.

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**Response to Sierra Club's Second Request for Information
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Case No. 2025-00045

Question No. 2-17

Responding Witness: John Bevington

Q-2-17. Please refer to the attachments to SC 1-41(a). For each customer with a completed facilities study, please identify the current status of the customer within the Companies' pipeline and if the customer has dropped out please explain why.

A-2-17. For the attachments provided in SC 1-41(a):

- TSR-2024-001 – Confirmed
- TSR-2024-011 – Confirmed
- TSR-2024-012 – Retracted
- TSR-2024-013 – Confirmed

TSR-2024-012 was retracted because the customer had resubmitted their TSR request (TSR-2024-013) for the full MW amount they are pursuing of 650MW. See response to AG-KIUC 1-45 and SC 2-18.

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**Response to Sierra Club's Second Request for Information
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Case No. 2025-00045

Question No. 2-18

Responding Witness: John Bevington

- Q-2-18. For any large load customer in the Companies' pipeline with a completed system impact study, please provide that study.
- A-2-18. System impact studies are being provided for the following confirmed or otherwise active TSRs associated with large customer loads. The information requested is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.

TSR	Requested Load (MW)
LGE-TSR-2024-001	335
LGE-TSR-2024-004	20
LGE-TSR-2024-011	67
LGE-TSR-2024-013	650
LGE-TSR-2024-014	100
LGE-TSR-2024-015	22
LGE-TSR-2025-001	57

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Question No. 2-19

Responding Witness: John Bevington

Q-2-19. Please refer to the response to AG-KIUC 1-45. Please indicate which of these loads corresponds to each of the facilities study reports given in the attachments to SC 1-41(a). If the MW of load given in the facilities studies do not match with the MW given in AG-KIUC 1-45, please explain why.

A-2-19. See the table below for corresponding TSR numbers for the projects shown in AG-KIUC 1-45.

Project	Date Submitted	Requested Load (MW)	Energize Date	TSR
Camp Ground 1	3/7/2024	335	2026	LGE-TSR-2024-001
Camp Ground 2	7/8/2024	67	2028	LGE-TSR-2024-011
Meridian 1	9/6/2024	100	2028	LGE-TSR-2024-012
Meridian 2*	9/6/2024	650	2030	LGE-TSR-2024-013
Maverick	10/25/2024	100	2031	LGE-TSR-2024-014
Shelby	6/1/2024	20	2025	LGE-TSR-2024-004

*Note, Project Meridian 2 has been publicly announced as Project Lincoln.

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Question No. 2-20

Responding Witness: Lana Isaacson

Q-2-20. Reference the Companies' response to JI1-106 b and c. Provide the following for each program:

- a. Projected participation
- b. Assumed savings per participant
- c. Ramp up period for participation
- d. Any pilot results

A-2-20.

- a. See the attached file provided in response to JI 1.52 in Case No. 2024-00326.
- b. See response to part (a).
- c. See response to part (a).
- d. These potential new offerings have not yet been offered as pilot programs.

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Question No. 2-21

Responding Witness: Lana Isaacson

- Q-2-21. Please identify any energy efficiency programs, demand response programs, or interruptible service tariffs that are available to industrial customers.
- a. For each program, please describe the process for marketing, informing, and/or obtaining participation.
 - b. For each program, please separately identify the number of industrial customers that have historically participated and the number of industrial customers that currently participate.
 - c. For each program, please identify the level of annual and lifetime savings achieved for each of the last five years.
 - d. Please identify the types of industries that participate in these programs.
- A-2-21. The Business Demand Response ("BDR") Program and the Business Rebates Program are available to industrial customers if they have not opted out of DSM.
- a. Outreach and marketing for both programs include a variety of channels and methods. This includes traditional channels like bill inserts, paid media, emails, press releases, and website content. There are also many other avenues including, but not limited to, attendance at conferences and trade shows, Company-sponsored lunch & learn events and other similar engagements, one-on-one engagements with customers, community members, and trade allies, presentations at Chamber meetings, promotion by the Companies' customer service representatives including the Business Service Center, Key Accounts Group, and National Accounts, and outreach activities conducted via each of the program vendors.
 - b. For the BDR Program, currently there are approximately sixteen premises that are classified as industrial. For the Business Rebates Program, from 2020 to 2024, there were approximately 2,616 accounts that were classified as industrial.

- c. See the response to JI 1.93.
- d. The industrial-specific industries that are participating or have participated in BDR Program, from NAICS codes, include:
- Abrasive Product Manufacturing
 - All Other Miscellaneous Fabricated Metal Product Manufacturing
 - All Other Miscellaneous Food Manufacturing
 - All Other Plastics Product Manufacturing
 - Commercial Printing (except Screen and Books)
 - Distilleries
 - Ice Manufacturing
 - Other Metal Container Manufacturing
 - Other Paperboard Container Manufacturing
 - Pharmaceutical Preparation Manufacturing

The industrial-specific industries that are participating or have participated in the Business Rebates Program, from NAICS codes, include:

- All Other Converted Paper Product Manufacturing
- All Other Miscellaneous Manufacturing
- All Other Miscellaneous Wood Product Manufacturing
- All Other Plastics Product Manufacturing
- Audio and Video Equipment Manufacturing
- Books Printing
- Bus and Other Motor Vehicle Transit Systems
- Clay Building Material and Refractories Manufacturing
- Commercial Printing (except Screen and Books)
- Construction Machinery Manufacturing
- Conveyor and Conveying Equipment Manufacturing
- Corrugated and Solid Fiber Box Manufacturing
- Custom Roll Forming
- Dental Equipment and Supplies Manufacturing
- Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour
- Fabricated Structural Metal Manufacturing
- Frozen Specialty Food Manufacturing
- Gasket, Packing, and Sealing Device Manufacturing
- Industrial Valve Manufacturing
- Institutional Furniture Manufacturing
- Iron and Steel Mills and Ferroalloy Manufacturing
- Machine Shops
- Machine Tool Manufacturing
- Mattress Manufacturing
- Meat Processed from Carcasses

- Metal Crown, Closure, and Other Metal Stamping (except Automotive)
- Metal Heat Treating
- Metal Window and Door Manufacturing
- Motor Vehicle Seating and Interior Trim Manufacturing
- Ornamental and Architectural Metal Work Manufacturing
- Other Animal Food Manufacturing
- Other Basic Inorganic Chemical Manufacturing
- Other Commercial and Service Industry Machinery Manufacturing
- Other Fabricated Wire Product Manufacturing
- Other Metal Container Manufacturing
- Other Motor Vehicle Parts Manufacturing
- Other Paperboard Container Manufacturing
- Packaging and Labeling Services
- Pump and Pumping Equipment Manufacturing
- Refrigerated Warehousing and Storage
- Rubber Product Manufacturing for Mechanical Use
- Sawmills
- Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
- Special Die and Tool, Die Set, Jig, and Fixture Manufacturing
- Steel Wire Drawing
- Switchgear and Switchboard Apparatus Manufacturing
- Truck Trailer Manufacturing

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Question No. 2-22

Responding Witness: John Bevington

- Q-2-22. Reference the Companies' response to JI 1-130 b. Please detail whether the Company discusses energy efficiency and interruptible service options with prospective data centers when discussing permanent service or during the engineering phase? If not, please detail when the Company considers it to be appropriate to discuss the efficiency of the facility receiving service.
- A-2-22. See the response to JI 2-2.

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Question No. 2-23

**Responding Witness: Lonnie E. Bellar / Robert M. Conroy / Daniel Hawk /
Elizabeth J. McFarland**

Q-2-23. Reference the Companies' Electrical Customer Guide, page 52. The Installation Costs section indicates that the installation costs "will vary according to KU/ODP ability to access existing utility facilities and/or the need to construct new facilities."

- a. Please define what constitute as new facilities and whether the need for additional capacity would be considered as part of "new facilities."
- b. Please detail how the Companies determines these costs allocations.

A-2-23.

- a. New Facilities, as referenced in this guide, represent new physical transmission and distribution assets that are required to provide electric service to a customer's location. Additional capacity is not considered as part of new facilities as referenced in the Electrical Customer Guide.
- b. For costs related to transmission upgrades, see the response to SC 2-22 in the Companies' Integrated Resource Plan case, which has been incorporated into this case. For distribution-related items, see the Companies' Line Extension Plan in each of their retail electric service tariffs.²

² Kentucky Utilities Company, P.S.C. No. 20, Original Sheet Nos. 106 – 106.5; Louisville Gas and Electric Company, P.S.C. Electric No. 13, Original Sheet Nos. 106 – 106.5.

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Question No. 2-24

Responding Witness: John Bevington / Counsel

- Q-2-24. Reference the Companies' response to JI 1-130 (e). Response to JI 2-6 Case No. 2024-00326 is confidential. Please provide the confidential attachment in this proceeding.
- A-2-24. The Companies assume Sierra Club intended to reference JI 2-16 in Case No. 2024-00326, which is the only confidential response referenced in the Companies' response to JI 1-130(e). The confidential files from the incorporated cases, including Case No. 2024-00326, are located on counsel's file share site for Case No. 2025-00045.

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Case No. 2025-00045

Question No. 2-25

Responding Witness: Robert M. Conroy

Q-2-25. Provide the rate impacts by customer class in a scenario where the Companies build the requested capacity but the 1,750 MW of data center capacity do not come to fruition.

A-2-25. See the response to AG-KIUC 2-22(f).

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Case No. 2025-00045

Question No. 2-26

Responding Witness: Robert M. Conroy

Q-2-26. Please provide the Companies' most recent cost of service study.

A-2-26. See the response to AG-KIUC 2-5(a).

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Case No. 2025-00045

Question No. 2-27

Responding Witness: Robert M. Conroy

Q-2-27. Please provide the current Commission-approved allocation rates by customer class.

A-2-27. The Commission approved rates by customer class in the Companies' most recent rate cases.

Kentucky Utilities Company – Case No. 2020-00349

September 24, 2021 Order

https://psc.ky.gov/pscscf/2020%20Cases/2020-00349//20210924_PSC_ORDER.pdf

December 6, 2021 Order

https://psc.ky.gov/pscscf/2020%20Cases/2020-00349//20211206_PSC_ORDER.pdf

Louisville Gas and Electric Company – Case No. 2020-00350

September 21, 2021 Order

https://psc.ky.gov/pscscf/2020%20Cases/2020-00350//20210924_PSC_ORDER.pdf

December 6, 2021 Order

https://psc.ky.gov/pscscf/2020%20Cases/2020-00350//20211206_PSC_ORDER.pdf

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Case No. 2025-00045

Question No. 2-28

Responding Witness: Robert M. Conroy / Christopher M. Garrett

Q-2-28. Reference Mr. Conroy's direct testimony, page 15, lines 16-20.

- a. Please quantify the estimated rate case cost that would be avoided by having a regulatory asset established for post-in-service costs for each project Brown 12, Mill Creek 6, and Cane Run BESS.
- b. Please estimate the twelve months of post-in-service costs that would be included in the regulatory asset for each project Brown 12, Mill Creek 6, and Cane Run BESS.
- c. Please identify the significant adverse impacts to the Companies' financial health that are projected by the Companies if they are not granted the regulatory asset.

A-2-28.

- a. Based on the Companies' last base rate case filings, Case Nos. 2020-00349 and 2020-00350, the requested accounting treatment would avoid approximately \$3 million of rate case expenses for each rate case that could be eliminated. The Companies anticipate that the requested accounting treatment may allow the Companies to avoid at least one rate case.
- b. The estimated post in service carrying costs for the twelve months following the in-service date of the investments are approximately \$164 million for Brown 12, \$167 million for Mill Creek 6, and \$75 million for Cane Run BESS.
- c. Adverse impacts include the potential of a credit downgrade and a reduced stock price resulting in higher financing costs for the Companies and ultimately their customers.

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Case No. 2025-00045

Question No. 2-29

Responding Witness: Robert M. Conroy / Counsel

Q-2-29. Reference LG&E's P.S.C. Electric No. 13, Original Sheet No. 102.1 dated July 20, 2021.

- a. Please confirm that this is the most recent date of issue for this tariff sheet related to Deposits.
- b. Please detail whether the Company's large load tariff that will be filed on May 30, 2025 will include a provision that addresses the deposits for customers that receive "Other Service" as stated on the referenced tariff sheet?
- c. Under Other Service, it states "If Customer fails to maintain a satisfactory payment or credit record, or otherwise becomes a new or greater credit risk, as determined by Company in its sole discretion, Company may require a new or additional deposit from Customer."
 - i. Please confirm whether the Company has utilized this provision previously.
 - ii. Please define what could be considered a greater credit risk.
 - iii. Please detail when or how the Company would determine that a Customer is a "new or greater credit risk."
 - iv. Please detail if there is a usage or demand threshold at which the Company would utilize this clause to require a higher deposit than one equal to 1/12 of the Customer's actual or estimated bill.
 - v. Please detail whether the Company has considered as part of its development of the large load tariff a usage or demand threshold to require a higher deposit and if so, what levels were considered.
 - vi. Please detail how the level of the new or additional deposit will be determined and assessed.

- d. Please verify whether the responses to this question would be considered the same for Kentucky Utilities.

A-2-29. 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. 2022-00402.³ Without waiving this objection, the Companies state as follows:

- a. Confirmed.
- b. Companies will file a proposed large load tariff as part of their May 30, 2025 rate case application Case Nos. 2025-00113 and 2025-00114. Full details associated with the collateral and deposit requirements will be filed within that case.
- c.
 - i. Confirmed
 - ii. A greater credit risk for a customer is one that is more likely to default or be consistently late on payments for the services we provide. They typically have: a poor credit history, low credit scores, difficulty providing a deposit or letter or credit.
 - iii. The Companies would determine a customer is a new or greater credit risk when the customer first opens an account. The Companies would do this by checking their credit history. After payments are issued the Companies may evaluate the deposit if the customer is late or missing payments, returned checks or failures to auto-payment or sudden changes in energy usage. The companies also determine the greater risk following bankruptcies of the customer, credit ratings drop, or job loss or economic downturn in the customers industry.
 - iv. Currently the Companies require all new customers to pay a deposit 2/12 of the customers estimated bill per the Tariffs terms and Conditions. Any existing customer that has asked for additional

³ 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).

service that requires upgrades to the Companies equipment are required the pay 2/12 of the incremental service they are requesting.

- v. See the response to part (b).
- vi. See the response to part (b).

d. The responses would be the same for KU.

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Question No. 2-30

Responding Witness: John Bevington

- Q-2-30. For a data center project proposed by a tenant-based developer versus a hyperscaler, enterprise, or cloud provider, is there any difference in the Companies' a) view of the risk related to achieving the maximum demand requested by the customer and b) any difference in the interconnection study process?
- A-2-30. No. The Companies assess each project individually and make no categorical distinctions based on whether a data center project is proposed by a developer or hyperscaler, enterprise, or cloud provider.

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Question No. 2-31

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

Q-2-31. Please provide all analyses, calculations, data, documents, modeling input and output files, and work papers associated with the installation and operation of pollution controls that may be needed at Ghent 2 to comply with existing or potential environmental regulations, including, but not limited to, the installation of:

- a. flue gas desulfurization technology
- b. updated particulate matter controls
- c. carbon capture and sequestration
- d. cooling water intake retrofits or
- e. any water pollution equipment.
- f. If the Companies have not conducted an evaluation of these potential controls, please explain why not for each control requirement.

A-2-31.

- a. See the response to part (f).
- b. See the response to part (f).
- c. Although an option expressed by the 111 rule, the Companies believe that the requirement to sequester captured carbon makes this option impractical given lack of suitable geology in Kentucky and lack of planned pipeline networks to transport captured carbon to suitable export facilities.
- d. See the response to part (f).
- e. The Companies are actively working with an owners engineer and an OEM supplier on a desktop study to evaluate the impacts and compliance options

for the EPA's Effluent Limitation Guidelines Zero Liquid Discharge ("ZLD") regulation.

- f. The Companies are not aware of incremental pending or current Ghent 2 compliance requirements which would result in the analyses conceptualized in parts (a), (b), and (d).

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Question No. 2-32

Responding Witness: Lonnie E. Bellar

Q-2-32. For Ghent 2, for 2019 through 2024, please provide the unit's average emission rate (in lb/mmbtu) for:

- a. SO2
- b. PM

A-2-32. a. and b. The data for the combined Ghent 2 & 3 Stack is shown in the table below. Because the CEMS are in the common outlet duct of the shared wet flue gas desulfurization unit, data solely for Ghent 2 is not available. Note that SO2 compliance for MATS is based on HC1 stack testing.

	PM	SO2
	lbs/mmbtu	lbs/mmbtu
2019	0.008	0.25
2020	0.008	0.247
2021	0.007	0.297
2022	0.007	0.29
2023	0.007	0.222
2024	0.007	0.222

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Question No. 2-33

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

Q-2-33. For Ghent 2, please provide the current Clean Water Act pollution discharge permit.

- a. Provide the application(s) that the Companies (or one of them) submitted for the renewal of the current Clean Water Act pollution discharge permit for Ghent.
- b. Provide any application(s) for renewal or modification of the current Clean Water Act pollution discharge permit for Ghent submitted after the issuance of the current Clean Water Act pollution discharge permit.

A-2-33.

- a. See attachment being provided in a separate file.
- b. See attachment being provided in a separate file.

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Question No. 2-34

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

Q-2-34. Please refer to the Companies' Response to Sierra Club Request for Information 1-16, which states, "The Companies' previous engineering studies for gas conversion of Trimble County Unit 1, which is a large tangentially-fired coal electric generating unit similar to Ghent 2, indicates NO_x emissions from a such a converted unit would likely to be in the range of 0.10-0.15 lb/MMBtu."

- a. Please provide all referenced studies for the Trimble County facility
- b. Please provide all studies evaluating the conversion of Ghent 2
- c. Are the Companies aware of any EGUs that have been converted from coal to gas that have achieved a NO_x emission rate lower than 0.10 lb/mmbtu? If so, please identify and provide all supporting documents.

A-2-34.

- a. See attachment being provided in a separate file.
- b. See attachment being provided in a separate file.
- c. No. The Companies are not aware of any non-SCR EGUs that have achieved the noted NO_x emission rate solely through conversion from coal to gas.