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 CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY AND SITE COMPATIBILITY CERTIFICATES	**)**	**CASE NO. 2025-00045**

RESPONSE OF
KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY
TO
KENTUCKIANS FOR THE COMMONWEALTH, KENTUCKY SOLAR ENERGY SOCIETY, METROPOLITAN HOUSING COALITION, AND MOUNTAIN ASSOCIATION'S THIRD REQUESTS 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

TAMMY J. ELZY
COMM EXPIRES 11/09/2026
NOTARY PUBLIC
ID # KYNP61560
STATE AT LARGE, KENTUCKY

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Lana Isaacson**, being duly sworn, deposes and says that she is Manager – Energy Efficiency Programs for 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.

Lana Isaacson

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

Caroline J. Davison
Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027

CAROLINE J. DAVISON
COMM EXPIRES
01/22/2027
NOTARY
PUBLIC
ID # KYNP63286
STATE AT LARGE, KENTUCKY

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, 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.

Tim A. Jones

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

Caroline J. Davison
Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Charles R. Schram**, being duly sworn, deposes and says that he is Vice President –Energy Supply and Analysis 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.

Charles R. Schram

Charles R. Schram

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

Caroline J. Davison

Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

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.

Venita Michelle DeFreeze
Notary Public

Notary Public, ID No. KYNP 4577

My Commission Expires:

April 1, 2028

VENITA MICHELLE DEFREEZE
NOTARY PUBLIC
Commonwealth of Kentucky
Commission # KYNP4577
My Commission Expires 4/1/2028

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Stuart A. Wilson**, being duly sworn, deposes and says that he is Director – Power Supply 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.

Stuart A. Wilson

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

Caroline J. Davison
Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027

KENTUCKY UTILITIES COMPANY
AND
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Response to Kentuckians for the Commonwealth, Kentucky Solar Energy Society, Metropolitan Housing Coalition, and Mountain Association's Third Requests for Information
Dated May 27, 2025

Case No. 2025-00045

Question No. 3.1

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

Q-3.1. Please refer to the Companies' response to Staff 1-34 and 1-35.

a. State whether LG&E-KU have concluded that a URA for Mill Creek 6 is necessary.

b. Provide an updated explanation of the current status of any negotiation for a URA for Mill Creek 6, including an anticipated execution date and cost.

A-3.1.

a. A URA is currently not necessary based on current equipment availability for a 2029 delivery. The Companies continue frequent discussions with the intended provider to ensure equipment availability remains well understood.

b. See the response to part (a). The Companies are not currently negotiating a URA for Mill Creek 6.

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Case No. 2025-00045

Question No. 3.2

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

Q-3.2. Please refer to the Companies' response to Staff 2-57. Please provide an explanation of all "market changes" adjustments made to the EPC bids received in Case No. 2022-00402 in developing estimated EPC costs for the NGCC and BESS proposed in this proceeding.

A-3.2. The referenced "market changes" include OEM and EPC cost impacts (escalation) to current market conditions, new and refined scope of work, as well as capturing lessons learned from the ongoing projects.

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Case No. 2025-00045

Question No. 3.3

Responding Witness: David L. Tummonds / Stuart A. Wilson

Q-3.3. Please refer to Exhibit SAW-2 at "Screening\Support\ CONFIDENTIAL_NGCC BR12 - DRAFT 2025 BP Cost Estimate (Base Case Update).xlsx" and "Screening\Support\CONFIDENTIAL_2031 NGCC MC6 - DRAFT 2025 BP Cost Estimate.xlsx." [redacted]

a. [redacted]

b. [redacted]

c. [redacted]

d. [redacted]

e. [redacted]

A-3.3.

a. The referenced documents list the Unit Capacity as approximately 660 MW, which is the net winter rating and maximum net output of the proposed units. The net summer rating for both units is approximately 645 MW.

b. The Companies have applied a 10% contingency to the project costs in both referenced documents, as shown in row 43 labeled "Contract Contingency (Contract Authorization vs. Value)" in the leftmost worksheet in both documents (labeled "NGCC EW Brown Unit 12" and "Mill Creek Unit #6," respectively).

c. Costs provided in the referenced files are the direct capital costs to execute the project. If AFUDC were included in the referenced files, the costs would be higher and reflect the as modeled costs. These costs were inputs into the Companies' financial models where the impact of AFUDC was captured. See Exhibit SAW-2 at "Screening\ CONFIDENTIAL_20250201_RevenueRequirementProfiles_2025CPCN_ 0336.xlsx."

d. The Companies escalated the costs for three years due to the timing differences between anticipated Commercial Operation Date ("COD") of the proposed 2031 COD project vs 2028 COD date of the baseline project.

e. The Unit Reservation Agreement ("URA") for Brown 12 created an important degree of pricing certainty by locking in pricing for the gas turbine and generator packages if a full power island equipment contract is executed by the target contract date stated in the URA. (The URA for Brown 12 was provided in response to JI 1-18.) Pricing for the balance of the power island equipment scope (steam turbine, heat recovery steam generator, other power island equipment, site delivery, and engineering) remains indicative. Therefore, the Companies reasonably added a 20% contingency to the indicative pricing provided by GE Vernova for the balance of the power island equipment scope.

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Question No. 3.4

Responding Witness: Lonnie E. Bellar / David L. Tummonds / Stuart A. Wilson

Q-3.4. Please reconcile the [redacted] with the escalation rates listed in the input tab of LG&E-KU's response to Staff 1-32, [redacted] each escalation rate in LG&E-KU's Response to Staff 1-32 [redacted] please explain why the Company chose that escalation rate and produce any analysis related to that escalation rate.

A-3.4. The 3% escalation rate referenced in the NGCC cost estimates reflects a general value for short-term inflationary changes to capital associated with construction of an NGCC. The escalation rates referenced in the Companies' response to PSC 1-32 reflect several different types of costs, including firm gas transportation (for which the Companies have observed cost increases below the general rate of inflation), Long-Term Service Agreement costs (which are based on the Companies' executed agreement for Mill Creek 5), and miscellaneous labor and O&M costs for which the Companies do not have a specific basis to expect escalation rates to be materially different from general long-term inflation forecasts. For these miscellaneous items, the Companies have assumed a general long-term inflation rate of 2.3% consistent with the inflation assumptions document filed in Vol. II of the 2024 IRP.

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Question No. 3.5

Responding Witness: David L. Tummonds

Q-3.5. Please refer to LG&E-KU's Response to AG 1.41b, which EKPC states: "Regarding cost contingency, the current estimates include a 10% contingency to address final pricing risk due to escalation, as well as the risks noted in the question. Input from our Owner's Engineer and discussion with other power providers indicate this is a prudent contingency at this stage of project development assuming minimal delay to contract execution." Produce all documentation of input from LG&E-KU's Owner's Engineer and discussion with other power providers regarding appropriate cost contingency.

A-3.5. See the response to SC 1-11(c) for input from the Companies' Owner's Engineer.

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Case No. 2025-00045

Question No. 3.6

Responding Witness: David L. Tummonds

Q-3.6. Please refer to LG&E-KU's Response to JI 1.16a, which states in regards to Mercer County Solar: "The Companies expect to execute an EPC contract later in the second quarter of 2025, at which point the Companies will be in an informed position to provide updated cost expectation." Provide an update on the status of the EPC contract and cost expectation for Mercer County Solar.

A-3.6. Negotiations for the Mercer County Solar EPC are progressing as the Companies anticipated and execution of the EPC agreement is expected mid to late June 2025.

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Question No. 3.7

Responding Witness: David L. Tummonds

Q-3.7. Please refer to the Direct Testimony of Companies' Witness David L. Tummonds, p.11, lines 10-11. Please provide the basis for the Companies' estimation that transmission costs will be approximately 2% of the total cost of the NGCCs.

A-3.7. See the response to JI 1-25(a).

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Question No. 3.8

Responding Witness: Lonnie E. Bellar / Tim A. Jones / Counsel

Q-3.8. Please refer to the Direct Testimony of Companies' Witness Lonnie E. Bellar at p. 2, lines 22-23, stating that "[s]uch large and rapid load growth is truly unprecedented for the Companies," and produce, in machine-readable format, to the extent available, any previous load forecasts from the Companies for the past twenty-five years, broken down by customer class and with municipal customers and reserve margins listed separately.

A-3.8. The Companies object to this request as unduly burdensome. Without waiving this objection, in addition to the 2025 CPCN Load Forecast filed in this proceeding, see the load forecasts provided in the Companies' Integrated Resource Plans ("IRPs") filed in Case Nos. 2005-00162, 2008-00148, 2011-00140, 2014-00131, 2018-00348, 2021-00393, and 2024-00326. See also the Companies' Annual Resource Assessment Filings in Administrative Case No. 387.[1]

[1] Available at https://psc.ky.gov/Case/ViewCaseFilings/20000387/Post.

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Question No. 3.9

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

Q-3.9. Please refer to the Direct Testimony of Companies' Witness Stuart A. Wilson at Ex. SAW-1 p. 15-16, which states that the Companies' combined system peak in 2032 is 8,034 MW, and minimum demand is 4,093 MW. Please also refer to the 2024 IRP Resource Planning public workpapers, "2025PlanInputs→Load→20240913_LoadforPROSYM_2025BP_High.xlsx" which shows a combined peak of 8,217.654 MW in 2034, and a minimum of 4,147.458 MW.

a. Please explain the difference between these two forecasts.

b. If the forecasts are different, please provide the updated supporting workpapers as in the 2024 IRP case, where different.

A-3.9.

a. The Companies assume the reference to 2034 in the question should have referred to 2032 instead. See the Direct Testimony of Companies' Witness Tim A. Jones at p. 8. The CPCN forecast uses only the 2024 IRP High case assumptions for Economic Development and BOSK Phase 2. The assumptions used in the CPCN forecast for heating electrification, customer growth, electric vehicles, distributed generation, and efficiency gains are the same as the 2024 IRP Mid case. This is the reason for the difference in the two forecasts.

b. See KPSC Case No 2024-00326 -- LGE-KU 2024 IRP Load Forecasting Workpapers—PUBLIC.zip at "IRP_Workpapers\Vol_I_Data\Scenarios."

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Question No. 3.10

Responding Witness: Charles R. Schram

Q-3.10. Please provide a spreadsheet with the total MW and MWh purchases/sales and associated costs/revenues by month, day, and hour for the last 2 years. If total cost data is not available for each hour, please provide separately the hourly MWh and the total cost at whatever interval is available (e.g., daily).

A-3.10. See attachment being provided as a separate file. Costs of making sales are presented by month.

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Question No. 3.11

Responding Witness: Stuart A. Wilson

Q-3.11. Please refer to 2024 IRP Resource Planning public workpapers, "2025PlanInputs->Solar-->20240711_JRW_SolarPROSYMTemplate_Marion_2025-2050.xlsx".

a. Please explain the meaning of the "period" column (column B) that oscillates between 0 and 12.

b. Please describe the interpretation of the values in the table of values in PROSYM tab columns J:U.

c. Please describe how the inputs in this workbook are utilized in the Companies' PROSYM modeling.

d. Please clarify the nameplate MW of the solar resource reflected in this workbook.

e. Please describe how PROSYM results are fed into other modeling workflows to determine ultimate resource need.

f. Please confirm that the cell values in the PROSYM tab for August 12, 2032 are 63.77 for period = 0 (row 7877) and 0.59 for period = 12 (row 7878) and provide an explanation for why the formula in the referenced PROSYM cells is calling values corresponding to 7 a.m. (Hour 7) and 7 p.m. (Hour 19), respectively.

A-3.11.

a. This file is used to translate the hourly generation profile into a format readable by PROSYM. Each day is shown as segmented into two twelve-hour halves, and the "Period" column signifies whether it is the first half (with a zero) or the second half (with a twelve).

b. The values in columns J:U reflect the expected hourly output of the generating resource.

c. The contents of H3:V21534 are pasted into a PROSYM input file (e.g., see "Public\PROSYM\ModelInputs\Renewables_2025BP.DAT" in Exhibit SAW-2) under the CapacityMax variable for Solar.MarionCo (Marion County Solar) to specify the generation output of this resource.

d. The nameplate capacity of this resource is 120 MW.

e. The Companies read the PROSYM results using a SAS script (e.g., see "Public\PROSYM\01_Stage1Step2\PROSYMCaseDeveloper_41T_Emiss Update.egp" in Exhibit SAW-2) and generate a summary (e.g., see "Public\PROSYM\01_Stage1Step2\outputtemplatedata.csv" in Exhibit SAW-2) which is then pasted into the Companies' Financial Model (e.g., see "Confidential\FinancialModel\CONFIDENTIAL_20250226_FinancialMo del_01_Stage1Step2_0336.xlsx" in Exhibit SAW-2). The Financial Model performs a full PVRR analysis which incorporates these PROSYM results.

f. Not confirmed. The values of 63.77 and 0.59 reflect the values in column Q, which corresponds to the expected generating output in the 7:00 a.m. and 7:00 p.m. hours respectively, but values in columns J:P and R:U reflect different values corresponding to expected generating output in those hours of that day, ranging from 0 MW (in nighttime hours) to 118 MW (in the 1:00 p.m. hour).

KENTUCKY UTILITIES COMPANY
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Response to Kentuckians for the Commonwealth, Kentucky Solar Energy Society, Metropolitan Housing Coalition, and Mountain Association's Third Requests for Information
Dated May 27, 2025

Case No. 2025-00045

Question No. 3.12

Responding Witness: Tim A. Jones

Q-3.12. Please refer to Direct Testimony of Companies' Witness Tim A. Jones at p. 45, lines 4-11, referring to incorporation of distributed solar and electric vehicle forecasts into their load forecast.

a. Please provide the normalized hourly 8760 generation profiles used for rooftop solar in the 2025 CPCN load forecast, represented as a % of nameplate capacity in each hour.

b. Please provide the hourly 8760 generation profiles used for rooftop solar in the 2025 CPCN load forecast, represented by total MW-ac generated in each hour.

c. Please provide the normalized hourly 8760 load profiles used for EV charging in the 2025 CPCN load forecast, represented as a % of total annual load in each hour. Please segment by use case to include residential, commercial/workplace, fleet, and public charging segments, or other similar categories used by the Companies for analysis.

d. Please provide the hourly 8760 load profiles (MW) used for EV charging in the 2025 CPCN load forecast, represented by total MW load in each hour. Please segment by use case to include residential, commercial/workplace, fleet, and public charging segments, or other similar categories used by the Companies for analysis.

A-3.12.

a. See Exhibit TAJ-2 at "Load_Forecasting\CPCN\Hourly_Forecast\Work\ Aggregated_Scenarios_Wide.csv" for solar and EV 8760 profiles as originally filed and see the attached Excel file for the requested calculations. Note that the solar profiles include generation for both net-metering and qualifying facilities.

b. See the response to part (a).

c. See the response to part (a). There is no segmentation for EVs by use case at the hourly level as the 8760 EV profile is specific to EV residential charging, as described in Exhibit TAJ-1 Section 4.6.

d. See the response to part (c).

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Response to Kentuckians for the Commonwealth, Kentucky Solar Energy Society, Metropolitan Housing Coalition, and Mountain Association's Third Requests for Information
Dated May 27, 2025

Case No. 2025-00045

Question No. 3.13

Responding Witness: Tim A. Jones

Q-3.13. Please refer to Direct Testimony of Companies' Witness Tim A. Jones at p. 39-40, regarding customer motivations to adopt solar.

a. Has the Company conducted any third-party evaluations about customer motivations in adopting rooftop solar? Please provide any and all evaluations, reports, memos, or workpapers detailing the customer motivations to adopt solar.

A-3.13.

a. The Companies have not conducted any third-party evaluations on this specific topic. However, the Companies' solar models assume that to the extent to which adoption for reasons other than economics has occurred in the past, it will continue to occur in the forecast period.

KENTUCKY UTILITIES COMPANY
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Response to Kentuckians for the Commonwealth, Kentucky Solar Energy Society, Metropolitan Housing Coalition, and Mountain Association's Third Requests for Information
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Case No. 2025-00045

Question No. 3.14

Responding Witness: Tim A. Jones

Q-3.14. Please refer to 2024 IRP, Vol. I, at p. 7-21 (pdf p. 68/135), relating to the method for applying the avoided cost-LCOE ratio to determine future net metered customers. Please also refer to the Companies' response to JI 1-123, regarding the solar capacity forecast workpaper at Ex. TAJ-2, Confidential "Load_Forecasting\Electric_Load_Forecast\Electric\Forecasts\PV\Input_Data\Price Needed for Energy Exported to Grid to Meet Total Project Costs_SAW_25BP_GP_IRP.xlsx."

a. Please confirm whether this workbook is the source of the derivation of the final avoided cost-LCOE model referenced above.

i. If confirmed, please indicate which worksheet and cell ranges contain the final calculations used in the development of the Base Case forecast for distributed solar used in this CPCN.

ii. If denied, please provide the file with the final specification of the model, with all cell formulae intact and input sources defined and referenced, and indicate which worksheet and cell ranges contain the final calculations used in the development of the Base Case forecast for distributed solar used in this CPCN.

b. [redacted]

[redacted]

c. Have the Companies applied this avoided cost-LCOE model to past adoption trends to determine goodness of fit? Please provide any and all workpapers.

d. Have the Companies explored or evaluated any other models to predict distributed solar adoption? If yes, please describe what was done and provide any supporting workpapers, reports, internal memoranda, or other materials indicating the reason for not adopting.

A-3.14.

a. Confirmed, see the response to part (a)(i).

i. In the workpaper identified, see the tab labeled "Model" and row 32, "Grid-to-LCOE Ratio," columns A-AT, for the cells which provide the calculations for the ratio that is an input to the models. Note that the amounts in row 27 ("Sell-Back Rate") currently in the file reflect NMS-I and NMS-II sell-back rates. The models themselves are R scripts located within the confidential workpapers in Exhibit TAJ-2 at "Load_Forecasting\Electric_Load_Forecast\Electric\Forecasts\PV\model and output."

ii. See the response to part (a).

b. Not confirmed. See the response to part (b)(ii).

i. See the response to part (b).

ii. For the avoided cost-LCOE ratio calculations, the Companies assumed 46% of distributed solar is sold back to the grid. This assumption is based on a 2018 study,[2] which estimated the average percentage of each additional kW of generation that is sold back to the grid for residential solar customers. Percent of generation sold back to the grid by array size from this study is summarized in the "Overgen" tab of the cited workpaper.

c. As discussed in Section 4.5 of Exhibit TAJ-1, the distributed solar models include various economic variables, one of which is the avoided cost-LCOE. In addition to this, another significant variable in the model is disposable personal income. The overall model predictions are highly

[2] Carroll, M. (2018). Demand rate impacts on residential rooftop solar customers. *The Electricity Journal*, *31*(8), 44-51.

correlated to the history used for the model (R-square values of .92 and .94 for KU and LG&E, respectively).

d. Historically, the Companies have used a customer choice model to forecast distributed solar adoption using the Grid-to-LCOE ratio previously mentioned. This variable is a reasonable metric for customers to use to evaluate the economics of distributed solar for their premise, and it was a good predictor of adoption through 2020. However, after Covid, this variable alone no longer fit the adoption history well and also made it difficult to forecast adoptions after the assumed end of new net metering service after reaching 1% of peak load, so the Companies adopted the method being used today as described in the response to part (c). See also the response and corrected response to JI 1-76 Case No. 2024-00326 for growth rate forecasts the Companies ran at the request of the Joint Intervenors.

KENTUCKY UTILITIES COMPANY
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Case No. 2025-00045

Question No. 3.15

Responding Witness: Lonnie E. Bellar / Lana Isaacson / Stuart A. Wilson / Counsel

Q-3.15. Please refer to the Companies' responses to JI 1.92 and 2.13, and explain whether the Companies the increased load forecast in this proceeding and the 2024 IRP as compared to the 2022 CPCN was taken into account in deciding the need to evaluate the potential for managed DERs, or VPP potential to supply a portion of the Companies' forecasted new resource requirements.

a. If yes, explain how.

b. If no, why not?

A-3.15. The Companies object to this request as asked and answered. Without waiving this objection, see the response to JI 1-92; see also the response to JI 2-13 and the response to JI 2-15 in Case No. 2024-00326.

KENTUCKY UTILITIES COMPANY
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Case No. 2025-00045

Question No. 3.16

Responding Witness: Lana Isaacson

Q-3.16. Please refer to the Companies' responses to JI 2.41 e and f., and explain why the Companies do not attribute any transmission or distribution capacity deferral credit to DR and EE programs in calculating program cost effectiveness.

A-3.16. The Companies currently have not evaluated such deferred distribution or transmission capacity costs but believe such benefits would be minimal compared to avoided or deferred energy and capacity costs and would be unlikely to have an appreciable impact on DSM-EE cost-benefit analyses or eventual program portfolios. In this proceeding, there is no reason to believe such deferred costs would have any effect on the Companies' load forecast, which assumes energy efficiency savings beyond those resulting from the Companies' DSM-EE programs, or their proposed resource portfolio, which already assumes additional demand-response program measures beyond those included in the Companies' approved 2024-2030 DSM-EE Program Plan.

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Question No. 3.17

Responding Witness: Lana Isaacson

Q-3.17. Please refer to the Companies' response to JI 2.49 c. and explain which of the items from Table 2 and Table 3 of the cited NREL report regarding policies and associated utility actions that can advance distributed storage adoption the Companies met through their current planning and proposed program offerings.

A-3.17. The Companies did not use the NREL report or the referenced tables in the DSM-EE planning process. See the response to JI 2.49(c).

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Question No. 3.18

Responding Witness: John Bevington

Q-3.18. Please refer to the Companies responses to PSC 2.7 and AG-KIUC 2.29.

a. Identify the control status (option, letter of intent, ownership, etc.) for each of the data center projects in the "prospect" or "imminent" stage of the economic development pipeline.

b. State whether any of the data center projects in the "inquiry" or "suspect" stages of the economic development pipeline has ownership or an option to purchase the proposed site for the project. If so, identify the total MW of such projects that have site ownership or an option to purchase.

A-3.18. The table on the following page responds to both parts of this request. The Opportunity ID numbers in the table correspond to those provided in response to PSC 2-17(g).

The Land Control Status terms in the table have the following meanings:

Owner Marketed	Broker or owner marketed site for data center users; site reviewed for power availability
Owned	Owned by developer for data center users; site reviewed for power availability
Optioned	Optioned by developer for data center users; site reviewed for power availability
LOI/Contract Pending	Letter of Intent with contract to purchase, pending

Opportunity ID	Sales Phase	Electric Peak (kW)	Land Control Status
2868	Prospect	350,000	Owner Marketed
3115	Imminent	402,000	Owned
3140	Prospect	100,000	Optioned
3326	Prospect	100,000	Owner Marketed
3603	Suspect	220,000	Owner Marketed
3645	Suspect	500,000	LOI/Contract Pending
3655	Prospect	600,000	Optioned
3657	Prospect	200,000	Owned
3671	Inquiry	400,000	Owned
3686	Inquiry	30,000	Owned
3741	Prospect	400,000	Owned
3774	Suspect	500,000	Owned
3775	Suspect	65,000	Owner Marketed
3782	Suspect	450,000	Optioned
3941	Prospect	550,000	Owner Marketed
4004	Inquiry	300,000	Owner Marketed
4084	Inquiry	400,000	Owned
4094	Suspect	500,000	Owner Marketed
4304	Suspect	50,000	Owned
4371	Prospect	65,000	Owner Marketed
4372	Inquiry	0	Owned

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Question No. 3.19

Responding Witness: John Bevington

Q-3.19. Please refer to the Companies' response to PSC 2.14(b), and produce any written documentation of the Camp Ground Road data center developer's request to submit a TSR for an additional 123 MW of load.

A-3.19. Attached in Excel format is the TSR application for Camp Ground Road.

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Question No. 3.20

Responding Witness: John Bevington

Q-3.20. Please refer to the Companies' response to PSC 2.21. With regards to the Companies' economic development queue:

a. Identify the amount of potential load in the Companies' economic development queue at the beginning of each of the years 2010-2024.

b. Identify the amount of potential load that was in the Companies' economic development queue at the beginning of each of the years 2010-2024 that has come online as a customer of LG&E or KU to date.

c. Explain in detail how the Companies decide whether and/or when a project in the economic development queue that has not come online should be removed from the queue.

d. Identify for each of the years 2010-2025 the amount of potential load that was removed from the economic development queue, and the reason(s) for such removal.

A-3.20. The Companies began the process of instituting a Customer Relationship Management system in 2019 and started logging projects in the system mid-2020. Therefore, the requested information is not readily accessible prior to 2021.

a. See the table below for the potential amount of peak load requests in the economic development queue as of January 1 starting in 2021.

As of 1/1/YYYY	Opportunity count logged	Total estimated load (MW)
2021	21	32
2022	35	39
2023	43	431*
2024	41	478**
2025	88	6,793***

** 320MW of which was the Ford BOSK project.*
*** 350MW of which is the first data center request.*
****4.9GW of which is data center requests.*

b. The Companies do not track information on cumulative load specific to only projects that are in the queue on January 1 of a given year. The total amount of load represented by projects that have been marked as announced from January 1, 2021, to December 31, 2024, is 506 MW. It is important to note that the amount of potential load represented is the projection each project communicated during the decision-making process. The actual load that has come online for these projects is tracked in the sales and load forecasting process.

c. The Companies' economic development team and account management group will mark the status as Lost or Stopped in the system if, and when, the project communicates that it is not going to occur in the Companies' service territory. Another reason for a project being marked as Lost or Stopped is if the project ceases communication with the Companies, the state, or the community that is engaged in helping the project come to fruition.

d. The Companies do not track the information requested. Because of the dynamic nature of the pipeline, a project could become inactive and not be reported as part of the economic development queue at a moment in time but then become active again later and reenter the queue.

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Question No. 3.21

Responding Witness: John Bevington

Q-3.21. Refer to the Companies' response to PSC 2.33. Confirm that the Companies have not taken any affirmative steps to recommend to potential data center customers curtailable or interruptible service, standby on-site generation, behind the meter generation, participation in energy efficiency programs, or any other approaches to offset needed capacity in the absence of such customers asking about or expressing interest in such items.

a. If confirmed, explain why the Companies have not taken any such affirmative steps.

b. If not confirmed, explain what affirmative steps the Companies have taken, and provide any documentation of the same.

A-3.21. Confirmed.

a. See the response to PSC 2-33 and 2-56(b). The Companies are responding to data center projects' specific requests for service.

b. Not applicable.

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Question No. 3.22

Responding Witness: Robert M. Conroy / Charles R. Schram

Q-3.22. Refer to the Companies' response to LMG-LFUGC 2-4. State whether the Companies anticipate that the gas plant projects proposed in this proceeding would lead to excess generation capacity that would make the EDR available to potential data center customers. If not, explain why not.

A-3.22. The potential for making the EDR available to customers of any type will depend on the Companies' forecasted load and capacity position at any point in time. Driving factors will include the levels of actual and forecasted incremental load and the composition of the generation portfolio, including any future plans for potential generation retirements and replacements. The Companies would not consider any potential capacity headroom that results from the practicality of adding generation in standard sizes rather than attempting to perfectly match load to be "excess generation capacity." Rather, such capacity would not only provide the opportunity to serve incremental load, but would also provide reliability benefits and the potential to avoid future capacity needs.

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Question No. 3.23

Responding Witness: Stuart A. Wilson

Q-3.23. Refer to the Companies' response to PSC 2-47. With regards to the "broader analysis" referenced therein:

a. Produce any report or other documentation of the results of such broader analysis.

b. Produce any modeling input and output files, workpapers, workbooks, or other documents used in carrying out, or supporting the results of, such "broader analysis."

c. Identify each major assumption or input to the "broader analysis" that differs from the assumption or input used in the modeling supporting this CPCN application. For each such assumption or input, explain the basis for the difference.

A-3.23.

a-c. See the supplemental response to KCA 1-4 provided on May 30, 2025 and the response to PSC 3-8(b).