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
THE ATTORNEY GENERAL AND KENTUCKY INDUSTRIAL UTILITY CUSTOMERS' SUPPLEMENTAL 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

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.

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, **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.

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, **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, 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.

Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 15th day of May 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, **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

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. 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, **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

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, **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, 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.

Philip A Imber

Philip A. Imber

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 12th day of May 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, 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.

Tim 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. 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, **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, and 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.

Beth McFarland

Elizabeth J. McFarland

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 15th day of May 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, **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, 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.

Charles R. Schram

Charles R. Schram

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. 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, **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, 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.

David L. Tummonds

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 15th day of May 2025.

Kenita M. Dutfreeze
Notary Public

Notary Public, ID No. KYNP4577

My Commission Expires:

April 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, 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.

Stuart A. Wilson

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. KYNP63286

My Commission Expires:

January 22, 2027

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

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 1

Responding Witness: Christopher M. Garrett

Q-1. Refer to the Companies' response to AG-KIUC 1-9.

a. Confirm that the Commission could direct the Companies to calculate AFUDC at its WACC without authorizing a regulatory asset in the same manner that Duke Energy Kentucky and Kentucky Power Company calculate AFUDC without recording a regulatory asset. If denied, then provide all authoritative support relied on for your response.

b. Provide an AFUDC calculation template consistent with using the WACC as the AFUDC rate for Kentucky retail purposes, including, but not limited to, the calculation of the base for that purpose, e.g., prior month end CWIP balance plus half of current month cap ex times the WACC. Describe and include in the calculation template the ADIT effects, if any.

c. Confirm the Companies' AFUDC proposal applies only to the jurisdictional portions of the new resources.

d. Confirm that the Companies' proposal to use the WACC as the AFUDC rate will result in different AFUDC rates for each Company and will result in different installed costs per kW for each Company's share of the resources that are allocated between the two Companies.

A-1.

a. Not confirmed. Absent approval of an accounting waiver from FERC, the Companies must adhere to the FERC Uniform System of Accounts and Electric Plant Instructions No. 3 Part A Line 17 when recording AFUDC that will be recovered in rates. The difference in AFUDC calculated using the FERC methodology and the WACC methodology should be recorded as a regulatory asset.[1]

b. See attachment being provided in a separate file. ADIT is not included in the calculation of AFUDC.

c. Confirmed.

d. Confirmed.

[1] Many FERC Audits have included findings related to the improper calculation of AFUDC rates. *See, e.g.*, Docket No. PA18-2-000, FERC Audit Report of Avista Corporation, Sept. 19, 2019 ("Avista accounted for the excess arising from higher state-approved AFUDC over AFUDC as computed in accordance with the Commission's accounting regulations as a cost of plant in Account 101, Electric Plant in Service, through Account 107, Construction Work In Progress, instead of recording the excess in Account 182.3, Other Regulatory Assets.").
Docket No. FA15-5-000, FERC Audit Report of Gulf Power Company, Sept. 26, 2017 ("Gulf Power incorrectly determined its allowance for funds used during construction (AFUDC) rate using the Florida Public Service Commission's (Florida Commission) method which was inconsistent with the Commission's AFUDC requirements.").

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 2

Responding Witness: Christopher M. Garrett

Q-2. Refer to the Companies' response AG-KIUC 1-10.

a. Confirm the calculation of post in service carrying charges as requested by the Companies would be at the net of tax WACC due to the deductibility of interest expense for income tax purposes and that the net of tax WACC would be applied to a rate base reduced by the ADIT due to accelerated tax deprecation in excess of book depreciation and the ADIT due to the book tax temporary differences on the deferred operating expenses. Provide all support relied on for your response. In addition, provide a calculation template consistent with your response.

b. Confirm that GAAP limits the calculation of post in service carrying charges or any deferred financing costs to the cost of debt because the return on equity is not considered an "expense" for deferral purposes. Provide all support relied on for your response.

A-2.

a. Confirmed. The Companies plan to calculate post in service carrying charges using the after-tax cost of equity consistent with the methodology used to calculate AFUDC under the WACC. The Companies have not yet developed a template for post in service carrying charges but agree that the WACC should be applied to a rate base that is net of accumulated ADIT due to accelerated depreciation and deferred operating expenses to the extent they are included in rate base. Additionally, accumulated deferred ITC may also serve as a reduction to rate base for the calculation of post in service carrying costs.

b. Confirmed. ASC 980-340-25-1 provides deferral accounting treatment for only incurred costs under US GAAP. Accordingly, a FERC/GAAP accounting difference would exist between the Companies' regulatory and GAAP set of books for the equity component deferral.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 3

Responding Witness: Christopher M. Garrett

Q-3. Refer to the response to AG-KIUC 1-11(b).

a. Indicate whether CWIP is subject to property taxes.

b. Confirm the Companies agree that any property tax expense deferred in the year when commercial operation is achieved will be based on the January 1 valuation date in that year and not include the additional construction costs incurred after January 1 of that year until the following year. If not, then explain why not and provide all support for your response.

A-3.

a. CWIP is subject to property taxes.

b. Confirmed.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 4

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

Q-4. Refer to the response to AG-KIUC 1-11(d).

a. Confirm whether "costs associated with the underlying investments are recovered from customers on a timely basis" include cash and/or deferred recovery.

b. Confirm whether the Companies agree it will be the Commission that determines whether the Companies acted prudently and reasonably to elect out of the normalization requirements for ITC regardless of the Companies' determination of whether "costs associated with the underlying investments are recovered from customers on a timely basis."

c. Confirm it will be the Commission that determines the amortization period for the deferred ITC on the new battery resources/assets subject to the election to opt out of the normalization requirements, not the Companies.

d. Confirm the Commission is not required to use the estimated service lives for the new battery resources/assets as the amortization period for the deferred ITC subject to the election to opt out of the normalization requirements because there will be no such restriction if the normalization requirements do not apply.

e. Describe the Companies' proposed amortization period for the deferred ITC on the new battery resources/assets for purpose of its proposal to defer the operating expenses, amortization of the deferred ITC, and carrying cost on the new resources/assets post in-service until the costs are included in rates.

A-4.

a. The Companies are referring to cash recovery via inclusion in retail rates.

b. Confirmed.

c. Confirmed.

d. Confirmed.

e. The Companies propose to use the book lives of the underlying assets for amortization purposes during the post in service deferral period.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 5

Responding Witness: Robert M. Conroy / Counsel

Q-5. Regarding the Companies' Class Cost of Service and Cost Allocation Process.

a. Please provide a copy of the Companies' latest Rate Class Cost of Service Study. Include all workpapers, calculations, documentation, description of methodology, including all allocators used for assigning fixed and variable costs.

b. Have the Companies performed any pro-forma cost allocation evaluations for the new CPCN resources using cost allocation assumptions? If so, please provide the study. If not, explain why not.

c. Have the Companies performed any evaluations for forecasted revenue related to new economic development load customers? If so, please provide the analysis and explain what assumptions were made for future revenues. If not, why not?

A-5. 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.[2]

[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 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).*

a. Without waiving the objection stated above, the Companies' most recent complete class cost of service studies are publicly available in the records of Case Nos. 2020-00349 and 2020-00350.[3] The Companies are causing to be prepared class cost of service studies for the base rate applications they anticipate filing on May 30, 2025, but those studies are not final.

b. Without waiving the objection stated above, no, the Companies have not performed any pro forma cost allocation evaluations for the new CPCN resources using cost allocation assumptions because such evaluations were not and are not necessary to determine whether the proposed resources are lowest reasonable cost.

c. Without waiving the objection stated above, see attachments being provided in a separate files.

[3] *See, e.g., Electronic Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Meter Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit, Case No. 2020-00349, Direct Testimony of William Steven Seelye (Ky. PSC filed Nov. 25, 2020); Case No. 2020-00349, KU Response to Commission Staff's First Request for Information, No. 56, Multiple Attachments (Ky. PSC filed Dec. 5, 2020) (attachments that include Exhibit WSS- in filename) Electronic Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Meter Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit, Case No. 2020-00350, Direct Testimony of William Steven Seelye (Ky. PSC filed Nov. 25, 2020); Case No. 2020-00350, LG&E Response to Commission Staff's First Request for Information, No. 56, Multiple Attachments (Ky. PSC filed Dec. 5, 2020) (attachments that include Exhibit WSS- in filename)*

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 6

Responding Witness: Robert M. Conroy

Q-6. Refer to the Companies' existing rate tariff structures and environmental cost recovery surcharge.

a. Please explain how Environmental Capital additions are financed and revenue requirements determined.

b. Please provide the Companies' latest Environmental Surcharge rider calculations.

c. Please provide the Companies' most recent Environmental Surcharge report and all associated workpapers.

d. Please identify the approved tariff, relevant docket, and provide all workpapers used to determine current rates.

e. Have the Companies projected costs and revenue requirements for future Environmental compliance expenditures? Please explain and provide all analysis conducted.

f. Do the Companies treat Environmental Capital differently than environmental O&M for rate making? Please explain.

A-6.

a. KU and LG&E target a capital structure that optimizes the mix of debt and equity financing that balances the appropriate amount of risk and minimizes its weighted cost of capital, while maintaining credit metrics that support their strong investment-grade credit ratings. The Companies do not engage in project financing.

Environmental surcharge revenue requirements (E(m)) are determined in accordance with the Environmental Cost Recovery Surcharge tariff using the formula $E(m)=[(RB/12)\ (ROR + (ROR - DR)\ (TR / (1 - TR))] + OE - BAS + BR$, where:

a. RB is the Total Environmental Compliance Rate Base.
b. ROR is the Rate of Return on Environmental Compliance Rate Base, designated as the overall rate of return [cost of short-term debt, long-term debt, preferred stock, and common equity].
c. DR is the Debt Rate [cost of short-term debt and long-term debt].
d. TR is the Composite Federal and State Income Tax Rate.
e. OE is the Operating Expenses. OE includes operation and maintenance expense recovery authorized by the Kentucky Public Service Commission in all approved ECR Plan proceedings.
f. BAS is the total proceeds from by-product and allowance sales.
g. BR is the operation and maintenance expenses, and/or revenues if applicable, associated with Beneficial Reuse.

b. See attachments being provided in separate files.

c. The Companies file quarterly update reports in Case Nos. 2015-00194, 2016-00026, 2016-00027, 2020-00060, and 2020-00061. The reports are available in the post case files. See also the attachments to the response to part b.

d. The current Environmental Cost Recovery Surcharge tariffs, sheets 87 and 87.1, for the Companies were approved in their last Commission initiated review cases, Case No. 2023-00375 for LG&E and Case No. 2023-00376 for KU. These tariffs do not include rates since the Environmental Surcharge billing factors change on a monthly basis and are filed with the Commission. See the attachments to the response to part b for the latest filings.

e. Yes, but only for KU. See attachment being provided in a separate file, which is Exhibit AMF-4 of the application filed with the Commission on April 30, 2025, as part of KU's application for approval of recovery of costs associated with its 2025 environmental compliance plan in Case No. 2025-00105. It shows projected costs associated with the project and impacts on KU's environmental surcharge.

f. Yes. Capital expenditures (net of accumulated depreciation and deferred income tax) are included in the Companies' environmental compliance rate base which is subject to the Commission approved rate of return. O&M expenditures are recovered dollar for dollar. Additionally, the Companies are allowed to include a cash working capital allowance on O&M expenditures in their environmental compliance rate base. This allowance is calculated as one-eighth of the past 12 months total O&M expenditures. The return on environmental compliance rate base and O&M are both included in revenue requirement. See also the response to part a.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 7

Responding Witness: Robert M. Conroy / Counsel

Q-7. Refer to the Companies' currently approved Tariff RTS.

a. Please provide the underlying rate development workpapers that describe how demand-based costs are allocated and recovered and energy assigned costs are allocated and recovered.

b. Do the Companies recover all demand allocated costs through the Load charges? Please explain.

c. Please provide the historic RTS tariff sheets rates for the past 10 years.

A-7. 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.[4]

a. Without waiving the objection stated above, all of the requested information is publicly available in the records of Case Nos. 2020-00349 and 2020-00350. For more information on the total costs classified in each cost category, please see the unit costs sheets provided in the response to AG-KIUC 1-188 in each of those cases.

[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).

b. Without waiving the objection stated above, yes.

c. Without waiving the objection stated above, all of the Companies' current and previous tariff sheets are publicly available on the Commission's website.[5]

[5] https://psc.ky.gov/Home/Library?type=Tariffs&folder=Electric (current tariffs); https://psc.ky.gov/trf4/TRFListFilings.aspx?Mode=3 (previous tariffs).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 8

Responding Witness: Robert M. Conroy / Stuart A. Wilson

Q-8. Have the Companies quantified the additional revenues associated with the load growth and new construction?

a. Please provide all quantifications the Companies performed associated with the load growth and new construction.

b. Please provide all PPL and KU/LGE investor presentations given over the past 24 months.

c. Please provide all PPL or KU/LGE specific presentations to investors on rate base growth and expected investment and/or Return on investment.

A-8. See the response to Question No. 5(c) and PSC 2-36.

a. See the work papers provided in response to Question No. 5(c) and PSC 2-36.

b. See attachment being provided in a separate file.

c. See response to part (b).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 9

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

Q-9. Refer to AG-KIUC 1-42 which states, "if the Companies were in an over-capacity situation, they would expect to find counterparties interested in purchasing capacity and energy given the anticipated capacity shortages in multiple surrounding systems and the projected national doubling of data center demand and other anticipated load growth." See also the responses to PSC 1-28(c) and KCA 1-5.

a. Do the Companies make capacity sales currently? If so, please explain the current rate making procedures and accounting.

b. Provide information regarding all capacity sales that were made, or capacity and energy sales, including name, counterparty, capacity, energy, and cost that the Companies have made each year over the past five years. For each of the sales note whether those sales were made because the Companies were in an over-capacity situation.

c. If the Companies were getting a deferral or alternative ratemaking recovery, what effect would the capacity sales have on the accounting treatment of the new generation units?

d. How would the Companies account for capacity sales if revenues from the sales were less than costs, or a net cost transaction? Please explain.

e. How would the Companies treat any refunds to customers coming from a sale if the revenues were greater than costs? Please explain.

f. If the Companies made a capacity sale, how would the accompanying energy be treated? Under what circumstances would the Companies account for energy sales as off system sales, and would the revenues flow through the OSS adjustment clause tariff? Please explain.

A-9. Please note the Companies are not in an RTO. Thus, a capacity sale or other firm power sale would require undesignating the applicable unit(s) from their status as

Designated Network Resources ("DNRs") that enables their Network Integrated Transmission Service ("NITS") to serve native load. Undesignated units would no longer be available to serve native load. Therefore, the Companies do not expect to make capacity sales; rather, they were simply noting that it could be an option in an over-capacity situation.

a. No.

b. The Companies are not in the merchant generation business and are not members of an RTO. There are no capacity sales over the last five years. The Companies' off-system sales are the sale of non-firm energy, not capacity.

c. Capacity sales would not impact the accounting treatment of the new generation units.

d. The Companies would identify the relevant revenues and costs related to capacity sales and propose that they be included in the Companies' off-system sales adjustment clause. If revenues exceeded costs, 75% of the margin would be returned to customers; if costs exceeded revenues, 75% of the margin would be collected from customers. This is the same methodology approved for the Companies' off-system sales of non-firm energy.

e. See the response to part (d).

f. As noted above, a capacity sale as described, or other firm power sale, requires undesignating the applicable unit(s) from their status as a Designated Network Resource ("DNR") that enables their Network Integrated Transmission Service ("NITS") to serve native load. The response to part (d) describes the treatment of revenue and costs resulting from the sale of energy. Undesignated units would no longer be available to serve native load.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 10

Responding Witness: David L. Tummonds

Q-10. Refer to the Companies' response to PSC 1-66.

a. Please provide a copy of the Companies Emergency Action Plan ("EAP")

b. Please provide a list of the facilities covered under the referenced EAP or outline the process how the Companies develop EAPs for its facilities and what additional items are needed at BESS facilities.

c. Have the Companies discussed the BESS resource with their insurers? If so, what will the total cost of the plan be and what is the coverage amount? Has that cost been included in the Companies' economic analysis? Please explain and identify the costs.

d. Please provide a copy of the terms of the BESS insurance policy that have been discussed, or the terms the Companies expect to be included in an insurance policy, and if available, provide a copy of the policy document under which the BESS resource will be covered.

A-10.

a. There is no single EAP for the Companies. The nature of an EAP requires site-specific content, and therefore each generation facility has its own EAP.

b. See the response to part (a).

c. See the response to AG-KIUC 1-39(a).

d. See the response to AG-KIUC 1-39(a).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 11

Responding Witness: Charles R. Schram / David L. Tummonds

Q-11. Refer to the Companies' response to AG-KIUC 1-27 and operational expectations for BESS resources.

a. Please describe and provide any documentation the Companies have developed regarding operating plans for the BESS resource. Please include information on BMS, safety, dispatch, degradation, interconnection and any other applicable areas.

b. Please provide the Companies operational dispatch process for the Brown and Cane Run BESS. Please include any internal documentation referenced in the response.

A-11.

a. The Companies do not currently have operating plans for the new BESS resources at Brown and Cane Run. However, attached is the requested information for the research battery facility currently installed at the E.W. Brown Generating Station, which is older technology compared to the new BESS resources. See attachment being provided in a separate file. The Companies expect roughly 2% degradation annually through the first ten years of operation.

b. No such process currently exists. The Companies are aware of a variety of potential dispatch applications for BESS outside of their capacity contribution including regulation (both up and down), contingency reserve deployment, frequency response, and the use of BESS discharge to avoid combustion turbine starts. The Companies will refine their BESS dispatch parameters as they gain operational experience.

See the table below for forecasted Equivalent Full Cycles ("EFCs") of Brown BESS and see the response to AG-KIUC 1-39(d) for forecasted EFCs of Cane Run BESS. Also see the response to Question No. 13.

Forecasted Equivalent Full Cycles (EFCs) of Brown BESS

Month	2028	2029	2030	2031	2032	2028-2032 Average
January	18.2	19.3	32.4	22.2	17.4	21.9
February	6.7	11.3	18.0	12.1	11.3	11.8
March	19.6	8.8	10.7	11.5	19.3	14.0
April	12.6	5.6	11.5	13.1	12.1	11.0
May	23.1	18.8	19.8	22.0	21.2	21.0
June	28.9	28.7	28.9	27.3	29.2	28.6
July	28.7	32.2	31.9	31.9	29.2	30.8
August	33.0	31.4	30.8	30.8	33.0	31.8
September	21.7	18.8	23.6	26.5	23.6	22.8
October	24.7	13.9	15.0	18.0	20.9	18.5
November	14.2	11.5	11.3	14.5	18.5	14.0
December	10.5	9.1	9.6	12.3	12.1	10.7
Total Annual	241.8	209.3	243.6	242.3	247.7	236.9

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

**Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025**

Case No. 2025-00045

Question No. 12

Responding Witness: Stuart A. Wilson

Q-12. Refer to the Companies' response to AG-KIUC 1-15(e), where the Companies state, "The Companies have not performed ELCC analyses. PJM uses ELCC to support its capacity accreditation process for specific generation technologies. ELCC is not applicable to the Companies because they are not PJM members."

a. Please explain how the Companies determined the 85% value used to translate the nameplate value to the value recorded in the load and resource balance table.

b. Provide the study, source, or calculations used to develop the 85% capacity value assumption for Cane Run BESS in the resource assessment tables. Please describe any dispatch assumptions and assumed use case associated with that 85% value.

c. Please explain how the Companies' methodology for assigning value to the BESS resources is different than an ELCC methodology.

d. Have the Companies benchmarked the assumed capacity value derived for BESS against any other utilities or market projections? Please provide all industry documents in the Companies possession related to BESS valuation or ELCC forecasting.

e. Have the Companies reviewed Kentucky Power's ("KPCO") 2022 IRP, which states "Similar to solar, storage ELCC values vary across scenarios, ranging from 66% to 80% by 2037."[6] Please compare the KPCO methodology to that relied on by KU/LGE and generally explain what accounts for the differences between the Companies' ELCC values and KPCO's ELCC values.

---

[6] KPCO 2022 IRP p. 133 https://psc.ky.gov/pscecf/2023-00092/sebishop%40aep.com/03202023030104/KPCO_2022_IRP_Volume_A-Public.pdf

f. Please explain if the Companies expect BESS capacity value to increase, decrease, or stay the same over the life of the resource. Provide year-over-year BESS capacity values, if available.

A-12.

a. See Section 4 at page 18 in the Companies' 2024 IRP Resource Adequacy Analysis.

b. See the response to part (a). See also KPSC Case No. 2024-00326 -- LGE-KU 2024 IRP Resource Planning Workpapers -- PUBLIC.zip at "SERVM\Outputs_SERVMResults\20240920_SMMA_2024IRP_ForCapacityContributions(BS4h, CT).xlsx".

c. The modeling framework the Companies use to develop capacity contributions for BESS is similar to the modeling framework PJM uses to compute ELCC. The key difference is that capacity contribution is developed to specify the portion of a resource's seasonal net capacity that contributes to meeting seasonal reserve requirements that are specified on a <u>net capacity</u> basis. Alternatively, ELCC is developed to specify the portion of a resource's summer net capacity (ICAP) that contributes to meeting a capacity need that is specified on a <u>UCAP</u> basis. Importantly, ELCC is always considered in the context of the PJM system and is developed for PJM's capacity accreditation process to account for a resource's forced outage rate, potentially diminished availability during extreme weather events, and in the case of BESS, its limited duration. Capacity contribution accounts only for BESS's limited duration. In PLEXOS, a resource's forced outage rate is modeled through a separate input. The Companies do not expect the availability of BESS will be diminished during extreme weather events.

d. The Companies have not benchmarked their capacity contributions against other utilities and are not aware of market projections that would be applicable to the Companies. Capacity contributions are specific to the Companies' load and resource mix. PJM's ELCC Class Ratings for the 2026/2027 Base Residual Auction are available at https://www.pjm.com/-/media/DotCom/planning/res-adeq/elcc/2026-27-bra-elcc-class-ratings.pdf. For the reasons stated in part (c), ELCC is not comparable to the Companies' capacity contribution values.

e. No. It appears Kentucky Power relied on ELCC values developed by PJM in a *December 2021 Effective Load Carrying Capability (ELCC) Report* (see page 120 of the referenced report and Figure 43 on page 121). At the time of this report, PJM's methodology for computing ELCC did not account for a resource's potentially diminished availability during extreme weather events. Therefore, the difference between the Companies' BESS capacity contribution (85%) and PJM's ELCC (80%) is explained primarily by the assumed BESS forced outage rate. PJM expects the ELCC for BESS to decline through 2037 as their load and resource mix changes.

f. The Companies do not expect the capacity contribution of the proposed BESS resource to change materially over time. However, similar to the PJM forecast referenced in part (d), the Companies would expect the capacity contribution for any incremental BESS resources to be slightly lower than the proposed BESS resource.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 13

Responding Witness: Charles R. Schram / Stuart A. Wilson

Q-13. Regarding BESS reliability and capacity value contributions:

a. Please explain how the Companies expect new BESS resources will dispatch during the winter peak period.

b. Provide all evidence, studies, calculations relied on to assume a specific optimal dispatch during winter peak period.

c. Provide all evidence, studies, and calculations on a historic basis in the Companies' possession to demonstrate BESS resource dispatch and reliability during peak winter periods, (i.e. winter storm Elliot.).

A-13.

a. In operation, the Companies anticipate that BESS resources would discharge during peak conditions in both winter and summer.

b. The results of a SERVM iteration for the 2022 weather year shows that BESS resources dispatch during peak hours and recharge during off-peak hours on December 23-24, the days when Winter Storm Elliott occurred. See attachment being provided in a separate file.

c. No such evidence, studies, or calculations exist. The Companies have no information to indicate that BESS energy could not be used during a winter peak period.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 14

Responding Witness: Charles R. Schram / David L. Tummonds

Q-14. Refer to the Companies' response to AG-KIUC 1-27 and cost expectations for BESS resources:

a. Why did the Companies choose not to perform a RFP for BESS resources? Please explain.

b. What market data points did the Companies collect for price estimates? Please provide all sources of information relied on for price estimates.

c. Did the Companies consider that they could have received asset transfer bids as part of the bids received in an RFP had an RFP been conducted? Please explain.

d. Provide all informal or formal proposals and cost estimates received.

A-14.

a. See paragraph two in the response to AG-KIUC 1-27.

b. The Companies used pricing information based on the Brown BESS.

c. The Companies' ability to use their existing sites for BESS resources, similar to thermal resources, reduces development time, costs, and risks. Other developers would require land to offer an asset transfer bid. However, the Companies will use an RFP process to construct the proposed BESS resources.

d. While the May 2024 RFP did not seek BESS resources, see Exhibit CRS-2 (May 2024 RFP Responses) for one offer that was received.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 15

Responding Witness: Charles R. Schram / David L. Tummonds

Q-15. Refer to the response to AG-KIUC 1-39.

a. Have the Companies estimated what the potential revenues could be from the offsystem sales ("OSS") of the BESS assets? If not, do the Companies plan on developing this ability based on the information obtained from their operational experience that can be used in future BESS proposals?

b. Please provide the expected battery degradation of the Cane Run BESS and cost to augment the BESS. Please provide the Companies' reasoning for not including these costs and operational assumptions in the CPCN analysis.

c. If the Companies was unable to provide a response to part b above, does that mean the Companies consider degradation or augmentation costs to be minimal? Please explain.

A-15.

a. No. The Companies do not consider OSS from any proposed or existing resources. BESS has the potential to contribute to OSS depending on system conditions and market economics. Customers will continue to receive 75 percent of any OSS margin via the sharing mechanism currently in place.

b. The cost of augmentation is included in the Companies' CPCN analysis. See the responses to AG-KIUC 1-39(d) and Question No. 11(a).

c. Not applicable.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 16

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

Q-16. Refer to the response to LMG-LFUCG_DR1.29

a. Did the Companies model a sensitivity for the Cane Run BESS without the 50% investment tax credit (ITC)? If not, why did the Company not choose to include this in their analysis?

b. If the Companies are unable to receive the ITC for Cane Run, how will the Companies account for or recover the additional incremental costs not included in their analysis?

A-16.

a. The Companies did not model a sensitivity without the ITC. See the response to PSC 2-47.

b. See the response to PSC 2-47.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 17

Responding Witness: David L. Tummonds

Q-17. Please refer to Exhibit SAW-1 page 20 and table 6-5 in the LG&E KU 2024 IRP.

a. Please provide a detailed narrative discussing why the cost projected for the Cane Run BESS project ($1,954/kW 2030$) is lower than the capital cost of the generic 4-hour BESS resource ($2,049/kW 2030$). Please reconcile the differences with a side-by-side comparison of the individual component costs deriving each value.

b. Provide any supporting documentation that supports the decrease in price for the Cane Run BESS resource.

A-17.

a. Both the Cane Run BESS project and the generic 4-hour BESS resource in the 2024 IRP were based on costs for the E.W. Brown BESS project. At the time of the 2024 IRP, E.W. Brown BESS costs were based on historical information provided by the Companies' owner's engineer, whereas the Cane Run BESS estimate utilized actual bid responses for the E.W. Brown BESS. Additionally, some civil and other project support cost components yield per-kW favorability when spread over a larger installation as noted in the table in part (b) below.

b. See the following table. The OEM and EPC costs for Cane Run BESS are favorable when compared to the generic 4-hour BESS resource in the 2024 IRP due to market conditions (excluding tariffs), while the Owner costs are unfavorable due to higher interconnection costs.

CR BESS	CPCN ($/kW)	IRP ($/kW)
OEM	$1,398	$1,441
EPC	$339	$480
Owner	$217	$128

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 18

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

Q-18. Refer to the response to AG-KIUC 1-24.

a. Why did the Companies not perform a similar analysis to that provided in the 2024 IRP with a data center of 1,050 MW?

b. Is the IRP analysis directly comparable to the CPCN evaluations consistent with the 1,470 MW? If not provide a side-by-side comparison of the changes in assumptions that were made that led to differences in results between the two studies.

c. Refer to the Companies' response to part b and the decision to evaluate "two higher and two lower load scenarios (and not more)," which the Companies attributed to requiring a significant amount of time to evaluate. Explain exactly how much time it would have taken to perform the evaluation. Also explain why the Companies didn't believe it was worth the time that would have been required to evaluate larger sensitivity blocks to capture risk around data center load materialization.

A-18.

a. The Companies did not evaluate a larger range of data center load because they believe 1,750 MW is a reasonable estimate for economic development load growth. See the responses to PSC 2-14(a) and PSC 2-16(c). With the base economic development load assumption being 1,750 MW and a key uncertainty to this load forecast, the Companies evaluated +/- 280 MW from a base of 1,750 MW in their 2025 CPCN Resource Assessment.

b. Differences between the IRP and CPCN analyses include load and some modeling assumptions. See the Jones testimony at page 8, which states "the 2025 CPCN Load Forecast is the 2024 IRP Mid load forecast extended to 2054 and adjusted to include the 2024 IRP High load forecast's economic development load, i.e., the 2025 CPCN Load Forecast includes 1,750 MW of data center load by 2032 and the 120 MW BOSK Phase Two load, whereas the 2024 Mid Load Forecast includes only 1,050 MW of data center load and excludes BOSK Phase Two." See Exhibit SAW-1 at page 6 for updated modeling assumptions for the Resource Assessment.

c. As stated in footnote 51 in Section 4.2 of Exhibit SAW-1, PLEXOS modeling runs can take up to 55 hours to complete based on the current level of granularity, and 25 PLEXOS runs (five load scenario times five fuel price scenarios) was the maximum number of runs that the Companies could complete in parallel with the computing resources available at the time the analysis was completed. See the response to part (a).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 19

Responding Witness: John Bevington

Q-19. Refer to the response to PSC-1-1.

a. Please reconcile why this response shows 1,002 MW of data center plans "announced" but this amount does not show up in response to AG-KIUC which shows only 50 MW announced. Please confirm the 402 MW Data Center is in the Imminent economic development stage and provide the current economic development stage of the 600 MW data center.

A-19.

a. See the response to PSC 2-18(c). Confirmed that the 402 MW data center is in the imminent stage. The 600 MW data center is in prospect stage. See the response to PSC 2-18(d).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 20

Responding Witness: John Bevington

Q-20. Refer to the response to PSC-1-18.

a. How long have the Companies utilized the five economic development project stages?

b. Please provide any internal documentation the Companies use to assign the stage of economic development to projects.

c. Please provide any internal documentation used to move projects from the "Inquiry" stage to the "Advanced" stage. If no internal documentation exists, please provide a narrative on how the Companies move projects through the five stages.

d. During what stage of the economic development project stages do the Companies require the projects to request a submission of a Transmission Service Requests?

A-20.

a. The Companies started tracking projects with project stages in 2019.

b. See the response to PSC 1-18(c). No internal documentation exists that the Companies use to assign the stage of economic development projects.

c. See the response to part (b).

d. The Companies do not require projects to request a submission of a Transmission Service Request ("TSR") at a specific economic development project stage.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 21

Responding Witness: John Bevington / Robert M. Conroy / Counsel

Q-21. Refer to PSC-1-28, specifically part (b) "The draft versions of those tariff provisions are subject to the work product doctrine. The Companies further respectfully suggest that addressing tariff issues would be more appropriate in the Companies' upcoming base rate cases than this CPCN proceeding." and (c) "Finally, regarding service terms for data center customers, the Companies anticipate a combination of minimum contract duration, minimum contract demand, and credit support, assurance, or security requirements will help mitigate the risks addressed in this request."

a. Why did the Companies choose to file for additional resources without the ability to lock the potential large load customers who are driving the need for the new generation into long-term contracts?

b. In particular, why did the Companies not choose to develop the tariffs prior to the CPCN proceeding? Please explain.

c. Is there a reason the Companies could not have filed for tariff before filing for a CPCN?

d. Do the Companies expect that customer interest could change once contract terms are known and fully understood? Please explain.

e. Would the Companies expect contracts to be a stronger indicator of commitment from prospective commitments than Transmission Service Requests? Please explain.

f. Please provide all internal documents, proposals, memos, reports, etc. that the Companies have that contemplate service terms for data center customers. Consider this an ongoing request.

A-21.

a. The Companies do not lack "the ability to lock the potential large load customers … into long-term contracts."

b. The Companies chose to address tariff matters in the base rate cases they anticipate filing at the end of May 2025 because that is the appropriate forum to address rate and tariff matters.

c. See the response to part (b).

d. The Companies acknowledge that possibility, but they do not expect it. Regardless, 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.

e. Yes, electric service contracts are firmer commitments than service inquiries for which the Companies issue TSRs to their Independent Transmission Organization. Engineering, procurement, and construction contracts regarding transmission facilities, which the Companies have regarding the Camp Ground Road data center, are also stronger commitments and indications of interest than service inquiries resulting in TSRs.

f. 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.[7] The Companies further object on the ground that all such documents are subject to attorney-client privilege, the work product doctrine, or both. Without waiving these objections, the Companies anticipate filing base rate applications with the

[7] *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).

Commission on May 30, 2025, which will include proposed tariff provisions for very large, high load factor customers.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 22

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

Q-22. Refer to the response to LMG-LFUCG_DR1.32 and PSC 1-17.

a. Is the 1,002 MW for this site hosting potential or based on actual data center facilities? Please confirm that this is only for hosting potential or provide the data center design used to determine the total site load.

b. How have the Companies verified the estimated demand for the facilities without a tenant in place? What information does the Company have regarding the prospects for obtaining tenants? Please provide.

c. When do the Companies expect facilities in Jefferson and Oldham Counties to be online?

d. Is it possible the tenants' ultimate use of the facilities could result in a system demand of less than 402 MW or 600 MW?

e. Do the Companies have the ability to serve load at this site if the tenants' final demand is greater than 402 MW or 600 MW?

f. If the Companies begin construction of new generating assets and the facilities in Jefferson and Oldham County are unable to find tenants or interconnect, how will the Companies cover the costs of construction.

A-22.

a. There is no single site associated with 1,002 MW as the question suggests. The Camp Ground Road data center project has an anticipated load of 402 MW and the Project Lincoln: OC Data Center has an anticipated load of approximately 600 MW. The basis of those numbers are client requests for capacity to serve actual data centers. As noted in response to PSC 2-14(c), since the last round of discovery, the Companies submitted an additional 123 MW TSR for the Camp Ground Road project, bringing the new total for the project to 525 MW.

b. The Companies have submitted TSR applications for both facilities that have been completed with the clients' input based on their requirements. The developers have indicated that they either have tenants or are negotiating with tenants at this time.

c. The Jefferson County project expects to be energized and online in late 2026 based on the TSR application that has been completed. The Oldham County data center TSR indicates an energization date of 2030, however the client hopes to energize sooner than this date based on the needs of the ultimate tenant. The Companies may submit a modification to the Oldham County project TSR if it is determined that the necessary infrastructure can be built and delivered sooner than 2030.

d. Yes, it is possible. However, the Companies are working with actual information provided by the client which indicate they need 402 and 600 MW. In fact, the Companies submitted an additional 123 MW TSR for the Camp Ground Road project, bringing the new total for the project to 525 MW. In the Companies' recent experience with data centers, those customers have sought to increase, not decrease, system demand.

e. The Companies have an obligation to serve loads that customers require in its service territories. The ability to serve more than the loads indicated by the client is a matter of timing, and a function of whether the transmission capacity on the nearby circuit can carry more than the loads indicated immediately or if upgrades are needed, and whether there is enough generation capacity immediately available or if new sources of generation are required.

f. The Companies are not proposing any cost recovery or allocation approach regarding any "additional supply side electric generation" in this proceeding. The Companies respectfully dispute the relevance of a request concerning rates in a CPCN proceeding. That aside, the Companies have not performed a cost-of-service study or revenue requirement, rate, or bill impact analysis for the proposed facilities other than the Ghent 2 SCR because the Companies are not seeking cost recovery for the proposed supply-side investments at this time. Such cost recovery would be requested through future applications for a change in base rates that would include other changes in the cost of providing safe and reliable energy to customers. The appropriate analysis in this proceeding is to determine the lowest reasonable cost portfolio for meeting future customers' needs based on present value revenue requirements. The Companies filed an environmental cost recovery application in Case No. 2025-00105 regarding the Ghent 2 SCR.

The Companies will continue to prudently evaluate the proposed investments and would not move forward if the proposed generation resources do not align with the load.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 23

Responding Witness: John Bevington / Robert M. Conroy

Q-23. Refer to the response to LMG-LFUCG_DR1.35

a. What happens to the costs the customer covered during the engineering, procurement, and construction (EPC) contract after the customer begins to take service? Are these costs refunded back to the customer and the total cost of the system upgrades recovered through general rates? Please specify for both the interconnection facilities and network upgrades costs.

A-23.

a. See the response to SREA 2-3(c) in this proceeding and SC 2-22 in Case No. 2024-00326.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 24

Responding Witness: Lonnie E. Bellar

Q-24. Refer to AG-KIUC 1-19 in which the Companies state, "The Companies will not commit to serving data center load if they cannot do so reliably."

a. Explain how the Companies will determine whether or not it has sufficient resources to serve a data center customer reliably.

b. Is this process contemplated to begin before signing any contracts?

c. How have the Companies considered the case in which it commits to build new resources for new load, but the prospective customer load does not want to commit to staying on the system? Please explain.

A-24.

a. See the responses to PSC 2-47 and 2-48.

b. Yes.

c. See the response to Question No. 22(f).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 25

Responding Witness: Philip A. Imber / Stuart A. Wilson

Q-25. Refer to the Companies' response to AG-KIUC 1-23.

a. Refer to part a. Which scenarios in the CPCN evaluation algin to which scenarios in the IRP? Please provide a mapping.

b. Refer to part b. Please explain what inputs were modified.

c. Refer to part b. Please explain if the Companies changed financing rates or the cost of capital.

d. Refer to part b. Please explain if the financial models provided in the CPCN are directly comparable to those in the IRP on a cost basis. If not, why not

e. Refer to Company response to PSC 1-94, "For the reasons described in Mr. Imber's testimony, the Companies' analysis assumes the referenced EPA rule does not go into effect, and the Companies did not directly consider the rule in their resource assessment. Nonetheless, the Companies' 2024 IRP Resource Assessment demonstrates that the proposed NGCCs are least-cost even with a 40 percent capacity factor limit." Why did the Companies choose not to include the EPA-111 analysis as part of this proceeding?

A-25.

a. While none of the scenarios in the CPCN directly align with the IRP, the 1,750 MW data center load scenario most closely aligns with the 2024 IRP High load scenario evaluated under the Ozone NAAQS environmental scenario. See also the response to Question No. 18(b).

b. The Companies configured inputs to new resources (on the NewResources tab), configured unit retirements and expansions (on the GenAlts tab), updated spend and revenue requirement profiles (on the Profiles tab), updated the timing of life extension costs for Brown 3 (on the FixTime tab), updated the capital cost of the Ghent 2 SCR (on the OtherInputs tab), updated the production cost results (on the PROSYM tab), configured the number of model runs (on the PROSYMCounter and ModelCounter tabs), and configured the scenario names and analysis period (on the Model tab).

c. The Companies did not change financing rates or the cost of capital. The Companies assumed CWIP accounting for all new units in the 2024 IRP, but assumed AFUDC accounting for all new units in the CPCN.

d. The models are not directly comparable on a cost basis. The Companies modeled production costs from 2025 to 2050 for 2024 IRP. For the CPCN Stage One, Step Two analysis, the Companies modeled production costs from 2030 to 2050.

e. The Companies chose not to include 111(b) and 111(d) regulations in the CPCN analysis because, for the reasons described in Mr. Imber's testimony, the Companies believe it is unlikely that the rules will go into effect. However, if the rules do go into effect, the Companies' analysis in the 2024 IRP demonstrates that the proposed NGCCs remain least-cost even with a 40 percent capacity factor limit.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 26

Responding Witness: John Bevington

Q-26. Economic Development – Jobs Created See AG-KIUC-AG 1-44.

a. Please explain what type of jobs, the direct jobs are expected to include, and over what duration of time are the jobs expected to exist (e.g. security, grounds maintenance, etc.). If known, provide job descriptions and details of jobs expected to be created.

b. Please explain what type of jobs, the indirect jobs are expected to include, and over what duration of time are the jobs expected to exist (e.g. jobs during construction).

c. Provide all industry metrics on jobs per MW or jobs per site available for data center customer types in the Companies' possession.

A-26.

a. Unknown at this time.

b. Unknown at this time.

c. See the Bevington and Jones testimonies for examples of data center literature in the Companies' possession. Specifically regarding jobs per MW or site, see the Boston Consulting Group article titled "Breaking Barriers to Data Center Growth,[8] which provides details on jobs in the construction and operational phase:

- <u>Construction Phase:</u> It is estimated during the construction phase there are five construction jobs per MW. Construction jobs include a wide range of trades, such as electricians, plumbers, HVAC technicians, and general laborers. For a large data center project, the number of

[8] Breaking Barriers to Data Center Growth, Boston Consulting Group, Jan. 20, 2025, *available at* https://www.bcg.com/publications/2025/breaking-barriers-data-center-growth.

construction workers employed can reach 1,688, generating $77.7 million in wages and $243.5 million in local economic output, according to the U.S. Chamber of Commerce.

- Operational Phase: It is estimated during the Operational phase there is one operations job per 2MW. Operational jobs include IT staff, network engineers, facility maintenance personnel, security personnel, and administrative staff.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 27

Responding Witness: John Bevington / Robert M. Conroy

Q-27. Refer to Companies response to LJCMG-LFUCG-Q-33 which states, "See Case No. 2024-00326, responses to JI 2-16 and 2-25. The Companies have not executed any contracts for electric service with any data centers as of the date of this response. The Companies expect to execute service contracts with the customers prior to electric services being rendered. Their execution will be contingent on the finalization of construction of facilities necessary to serve the customer and timing of the meter installation."

a. Do the Companies intend to execute contracts before or after CPCN approval? Please explain and state any specific details of contracts expected.

b. Do the Companies intend to execute contracts before or after construction of any new CC resources begins? Please explain and state any specific details of contracts expected.

c. Do the Companies intend to execute contracts before or after construction of any new BESS resources begins? Please explain and state any specific details of contracts expected.

d. Do the Companies intend to execute contracts before or after construction of any approved CC resources is completed? Please explain and state any specific details of contracts expected.

e. Do the Companies intend to execute contracts before or after construction of any approved BESS resources is completed? Please explain and state any specific details of contracts expected.

f. Do the Companies intend to execute contracts before or after installation of new meters at customer sites? Please explain and state any specific details of contracts expected.

A-27.

a-f. The Companies intend to execute contracts with one or more ultimate customers as soon as possible. The timing ultimately rests within the negotiations between the project developer and the tenants.

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.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 28

Responding Witness: John Bevington

Q-28. Refer to the Companies' response to PSC 1-17.

a. For the 402 MW Camp Ground Road data center project and the 600 MW Project Lincoln: OC Data Center, have the Companies been informed of the "well-known technology companies" the developers have been in talk John Bevington with about use of the site?

b. Have the Companies had any discussions with the potential owners of the data centers? Meaning the companies that will install and manage the server farms and the Camp Ground Road and Project Lincoln sites.

c. Do the Companies plan on requiring the developer or facility tenants sign a contract for electric service or future special service contracts discussed in response to PSC 1-18?

A-28.

a. No. The developers have non-disclosure agreements with the technology companies and have not disclosed the specific companies at this time.

b. The Companies have had conversations with major hyperscalers but do not know if they are the same potential entities. i.e. tenants, the developers are negotiating with.

c. The Companies expect to have contracts for electric service signed by the entities that will be paying for the metered services at the sites.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 29

Responding Witness: John Bevington

Q-29. Please describe the Companies' process for determining if announced load is likely.

a. Has KU/LG&E verified land control and progressive site development status in its assessment of viability for prospective pipeline load and the Camp Ground / Lincoln customers? Please explain.

b. Has KU/LG&E assessed the credit worthiness or balance sheet new load customers? Please explain what level of assessment has been conducted.

A-29. The Companies' economic development team asks many questions of projects including the status of land control and activities clients are progressing with in order to make their ultimate site location decision. The answers to these questions, and the ongoing work that is performed in the process to connect to the Companies' system help determine if load is likely to come to fruition.

a. The Companies are aware that the developer of the Camp Ground Road project owns and controls the site and that the developers of Project Lincoln have an option to purchase the site.

b. No.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 30

Responding Witness: John Bevington / Robert M. Conroy / Tim A. Jones / Counsel

Q-30. Please reference Tariff Filling ID TFS2025-00224, Rate DCP (Data Center Power) of East Kentucky Power Cooperative, Inc.

a. Have the Companies considered only providing service once a data center enters into a contract that has been approved by the KPSC? Would this requirement also apply before beginning any necessary transmission upgrades?

b. Have the Companies considered an energy demand and load factor threshold for datacenters to participate under the special service contracts referenced in PSC 1-18? If so, what energy demand and load factors are the Companies considering?

c. Do the Companies plan on allowing data centers to use behind-the-meter or third-party energy sources? If so, how did the Companies account for these in its load forecast and economic development estimates?

d. Have the Companies considered a "Dedicated Resource" for data centers which would be fully funded by costs recovered from a dedicated rate class or specific customers?

A-30. 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, the Companies state as follows:

[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*

a. No. The Companies can also provide retail electric service under contracts executed pursuant to Commission-approved rate schedules. Such contracts do not require Commission approval.

b. The Companies will file a proposed large load tariff as part of their May 30, 2025, rate case applications in Case Nos. 2025-00113 and 2025-00114. Full details associated with availability, contract term, collateral, amongst other requirements will be filed within that case. Any contract entered prior to this tariff's approval will contain similar terms and will be presented to the Commission for review and approval.

c. Yes, the Companies will allow behind-the-meter generation consistent with their retail electric tariffs and applicable law. No, the Companies will not allow third-party provision of electric service to any electric consuming facility in their certified service territories. No, the Companies did not consider behind-the-meter or third-party energy sources for data centers when they developed the 2025 CPCN Load Forecast because they had not received (and still have not received) information from any data center developer or prospective customer expressing an interest in using onsite generation for any purpose other than backup power.

d. No.

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 Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 31

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

Q-31. Refer to the response to KCA-1.4.

a. When do the Companies expect to complete their analysis of Mill Creek 2?

b. How will the Companies incorporate their analysis of reconsidering the Mill Creek 2 units in this proceeding?

c. How would the action plan for the new BESS and CC resources change if Mill Creek 2 continues to operate passed the currently planned retirement date?

d. Have the Companies performed any sensitivity analyses that reflect continued operation of Mill Creek 2 passed the currently planned retirement date? If so, please provide the results of those analyses, electronically, with all workpapers.

A-31.

a. See the response to PSC 2-47.

b. See the response to PSC 2-47.

c. See the response to PSC 2-47.

d. See the response to PSC 2-47.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 32

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

Q-32. Refer to the Companies' response to KCA-1.4 which states the Companies are currently evaluating continue operation of Mill Creek 2 and the Companies response to LMGLGUCG 1.30 which states that, "The Companies have no existing plans to accelerate the retirement of existing coal-fired generating facilities. The Companies would analyze and make such decisions holistically and in compliance with applicable law."

a. Could deferred retirement at Mill Creek 2 defer or delay need for new generation? Please explain.

b. Please explain what "holistically" means? Would the Companies need to assess alternative resource options in the evaluation? Please explain.

c. Did the Companies include a deferred retirement analysis at Mill Creek 2 as part of their most recent IRP proceeding? If so, please provide a summary of the findings. If not, please explain why the Companies did not use the proceeding as a means of holistically evaluating a deferred retirement option.

A-32.

a. See the response to PSC 2-47.

b. "Holistically" means that any plans to accelerate the retirement of an existing resource would require a new analysis with updated assumptions for load, resource costs, fuel prices, environmental regulations, and other system factors.

c. No. At the time the IRP was developed and filed, the political climate and series of environmental regulations that potentially limited the long-term viability of coal resources did not warrant a deferred retirement analysis for Mill Creek 2.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 33

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

Q-33. Are there any environmental regulations in place that would require the Companies to limit generation at Mill Creek 3 and 4, Mill Creek 5 and Mill Creek 6?

a. Please provide copies of all existing air permits and describe any limitations or conditions included for the existing Mill Creek site.

b. Please explain if the Companies' Mill Creek plant is limited to any type of capacity factor limitations (NOx, SOx, PM, etc.). If so, please provide the limits, the reason for the limits, and documentation in the Company's possession regarding its plans to meet the limits. Explain if such limits are enforced annually or seasonally.

c. Please explain if the Companies' Mill Creek plant is limited to any mass-based limitations (NOx, SOx, PM, etc.) for Mill Creek plant or unit operations. If so, please provide the limits, the reason for the limits, and documentation in the Companies' possession regarding its plans to meet the limits. Explain if such limits are enforced annually or seasonally.

d. Please explain if the Companies' Mill Creek plant is limited to any hourly limitations (NOx, SOx, PM, etc.) for Mill Creek plant or unit operations. If so, please provide the limits, the reason for the limits, and documentation in the Company's possession regarding its plans to meet the limits. Explain if such limits are enforced annually or seasonally.

e. Please confirm that proposed new build resources will be permitted to operate at full capacity in addition to existing resources. If not, please explain.

f. Have the Companies begun the air permitting processes? Provide the status and existing permit documentation for the proposed resources.

g. If there are environmental regulations that would limit full capacity at the site, how would the Companies address any peak demand concerns? Please explain.

h. Would the Companies consider an earlier retirement date for Mill Creek 3 and 4 because of environmental limitations on the generating units that are currently in place? Please explain.

A-33.

a. The Mill Creek Title V air permit and the construction permit for Mill Creek Unit 5 are attached. These permits do not have limits to electrical generation. See attachments being provided in separate files.

b. Based on the existing permits, the Mill Creek plant does not have any type of capacity factor limitations for NOx, SOx, PM, etc.

c. Based on the existing permits, the Mill Creek plant does not have mass-based limitations on NOx, SOx, PM, or other criteria pollutants. The Mill Creek plant is allocated seasonal NOx mass-based emission allocations and annual NOx and SOx mass-based allocations. However, Mill Creek is not operationally limited to the mass-based allocations. The Companies may utilize their banks and/or trading programs to comply with the mass based allowance surrender requirements.
Mill Creek Units 3 and 4 do have mass-based limitations on toxic air pollutants (TAC) based on TAC Environmental Acceptability Demonstrations submitted to LMAPCD which demonstrated compliance with LMAPCD Strategic Toxic Air Reduction regulation (STAR, Regulations 5.00 and 5.21). See attachment being provided in a separate file for limits and other requested information. The combustion of natural gas on Mill Creek 5 means that TAC emissions are considered de minimis.

d. Mill Creek has several hourly limits as described in the attachment being provided in a separate file.

e. Confirmed.

f. Yes. See Mill Creek 6 permit application being provided in a separate file. The permit application is not requesting limits to electrical generation.

g. There are no environmental regulations that limit full capacity at the site per se.

h. Yes. LG&E is evaluating compliance options to the 2024 Effluent Limitation Guidelines (ELG). It is possible to be exempt from the 2024 ELG by submitting a Notice of Planned Participation (NOPP) request by

December 31, 2025 and ultimately retiring the units by December 31, 2034. Also, the 2024 Greenhouse Gas Rule, also known as the 111 Rule, requires the evaluation of Best Systems of Emission Reductions that include a retirement option.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 34

Responding Witness: Stuart A. Wilson

Q-34. Please provide the Companies' summer and winter reserve margins used in its last five IRP filings. Please include the Case No. for each referenced IRP. Explain the methodology used in each IRP to derive the RM used in that IRP.

A-34. The table below provides the reserve margins from the last five IRP filings. Beginning with the 2018 IRP, the Companies computed both economic reserve margins and reserve margins that limit the loss-of-load expectation ("LOLE") to one day in 10 years. The economic reserve margin has consistently been lower than the "1-in-10 LOLE" reserve margin and therefore formed the minimum of the range. Prior to the 2018 IRP, an economic reserve margin approach with varying inputs was used to compute both the minimum and maximum of the range. Beginning with the 2021 IRP, the Companies' resource planning analyses focused on meeting both summer and winter reserve margin constraints instead of only a summer reserve margin constraint. Finally, beginning with the 2024 IRP, the Companies used the 1-in-10 LOLE reserve margin instead of the economic reserve margin as the minimum reserve margin constraint for resource planning.

Year	Case No.	Summer Reserve Margin	Winter Reserve Margin	IRP Filing Link	IRP PDF Page#
2024	2024-00326	17-23%	22-29%	https://psc.ky.gov/pscecf/2024-00326/rick.lovekamp%40lge-ku.com/10182024014139/08-LGE_KU_2024_IRP_Volume_III.pdf	38 of 259
2021	2021-00393	17-24%	26-35%	https://psc.ky.gov/pscecf/2021-00393/rick.lovekamp%40lge-ku.com/10192021013101/5-LGE_KU_2021_IRP_Volume_III.pdf	53 of 140
2018	2018-00348	17-25%	N/A	https://psc.ky.gov/pscecf/2018-00348/rick.lovekamp%40lge-ku.com/10192018102925/5-LGE_KU_2018_IRP-Volume_III.pdf	61 of 93
2014	2014-00131	15-17%	N/A	https://psc.ky.gov/pscecf/2014-00131/rick.lovekamp%40lge-ku.com/04212014122553/Volume_III_REDACTED.pdf	34 of 211
2011	2011-00140	15-17%	N/A	https://psc.ky.gov/pscscf/2011%20cases/2011-00140/20110421_LG&E-KU_IRP_Volume%20III.pdf	96 of 155

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 35

Responding Witness: Stuart A. Wilson

Q-35. Refer to Case No. 2022-00402, Order at 177-78 (Ky. PSC Nov. 6, 2023). It appears that the Companies moved from an economic reserve margin to a 1-in10 LOLE reserve margin in the 2024 IRP based on the Commission's Order in 2022 CPCN and DSM case.

a. Please explain what methodology and assumption changes have been made since 2022 study.

b. Compare and contrast the old methodology to the new methodology.

A-35.

a. There are no changes in methodology since the 2022 CPCN. Since the 2018 IRP, the Companies have produced both economic reserve margins and reserve margins that limit the loss-of-load expectation ("LOLE") to one day in 10 years. The economic reserve margin has consistently been lower than the "1-in-10 LOLE" reserve margin. The only change is that, before the 2024 IRP, the Companies used the economic reserve margin as the minimum reserve margin constraint for resource planning. Based on the events of Winter Storm Elliott and the Commission's Order in the 2022 CPCN and DSM case, starting with the 2024 IRP, the Companies have switched to using the 1-in-10 LOLE reserve margin constraint for resource planning. Note that assumptions such as cost of SCCT capacity, EFOR, and load forecasts change over time and impact the Companies' reserve margin. The 2024 IRP Resource Adequacy Analysis provides a summary of the economic and 1-in-10 LOLE reserve margins. See Section 1 at page 4 in the Companies' 2024 IRP Resource Adequacy Analysis for more details.

b. See the response to part (a).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 36

Responding Witness: Stuart A. Wilson

Q-36. Please describe the drivers of the increase in reserve margin compared to the 2022 IRP reserve margin and the 2025 planning reserve margin.

a. Please describe any impacts related to increased energy requirements and higher load factor load on the planning reserve margin.

b. Please describe any studies performed to quantify the impacts of both shape and magnitude of the load forecast change.

c. Please describe the impacts of weather normal load forecasting and load forecasts used in the evaluation for reserve margin.

A-36. The Companies assume this question intended to reference the 2022 CPCN reserve margin and the reserve margins developed in the 2024 IRP and used in this CPCN analysis. See the response to Question No. 35.

a. Table 1 at page 4 in the Companies' 2024 IRP Resource Adequacy Analysis compare economic and 1-in-10 LOLE reserve margins from the 2021 IRP, 2022 CPCN, and 2024 IRP. Largely due to the addition of high load factor economic development load, first in the 2022 CPCN with BlueOval SK and now with data centers, both the economic and 1-in-10 LOLE reserve margins have decreased. See also the response to AG-KIUC 1-21(a).

b. The Companies have not conducted such studies.

c. For their resource adequacy studies, the Companies produced 51 hourly demand forecasts for 2032 based on actual weather in each of the last 51 years. The average energy requirements and seasonal peak demands for these 51 forecasts match the forecasts of energy requirements and seasonal peak demands based on normal weather.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 37

Responding Witness: Charles R. Schram / Stuart A. Wilson

Q-37. Refer to the Companies response to AG-KIUC 1-15(b) and AG-KIUC 1-21.

a. If the Companies plan reliability on a combined KU/LGE basis and the fact that reserve margins are carried for load changes due primarily to weather and unit availability risk, please explain any possible impacts related to reliability planning and costs.

b. Do the Companies anticipate any reliability issues with anticipated large high-load factor load growth predominately in a single geographic area? Please explain if the risk of reliability events will increase or decrease with the addition of high-load factor load.

c. Do the Companies anticipate operating reserve requirements will increase or decrease with the addition of high-load factor load? Please explain.

A-37.

a. The impact on a percentage basis of adding high load factor economic development load is greatest in the shoulder months when existing customer loads are lower. This fact increased focus on the shoulder months in the Stage Two analysis (Assessing Resource Adequacy) for ensuring the Companies could reliably complete planned maintenance.

b. No. The Companies' application accounts for the high-load factor loads and is designed to limit loss-of-load expectation to 1 day in 10 years.

c. Per the Companies' Reserve Sharing Agreement with TVA, operating reserves may increase slightly if the relative increases in the Companies' load are greater than TVA's load.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 38

Responding Witness: Daniel Hawk / Elizabeth J. McFarland / Charles R. Schram

Q-38. Refer to the Companies' Transmission Service Request Process.

a. Please explain what a Transmission Service Request is, which parties determine the contents of such request, when the request is made, and the purpose of making a request.

b. Please explain how the TSR is accepted and processed.

c. Please explain the findings expected after conducting the associated study. Is the TSR intended to determine whether new load can be served by existing infrastructure or require new infrastructure? Please explain.

d. Please explain how new infrastructure is paid for if a new project requires additional transmission system upgrades. Are the identified costs assigned to the customers or shared across the system?

A-38.

a. Broadly, a Transmission Service Request (TSR) is the process by which the Companies (as a Load Serving Entity and Transmission Customer) request to reserve capacity on the LG&E/KU transmission system. Specifically for new loads, the Companies request Network Integration Transmission Service (NITS) which is a service for delivering capacity and energy from the Companies' designated Network Resources to their designated Network Loads. The Companies are required to submit TSRs in certain circumstances, including the addition of large new loads, per the LG&E/KU Transmission Service and Scheduling Business Practices.[10]

A TSR for NITS is submitted via an entry in the Open Access Same-Time Information System (OASIS) and a NITS Application spreadsheet that is e-

---

[10] https://www.oasis.oati.com/woa/docs/LGEE/LGEEdocs/Business_Practices_-_Transmission_Service_and_Scheduling_Clean_-_Effective_02-12-25.pdf

mailed to the Independent Transmission Organization (ITO). The NITS Application contains the data necessary for the request to be studied and includes interconnection point data and seasonal demand profiles. This data is compiled by the Companies in collaboration with the end-use customer(s).

The Companies submit TSRs as soon as practicable to allow time for the transmission study process (typically 6-7 months) and for any necessary transmission system upgrades to be constructed.

b. After a TSR is submitted, the ITO conducts a System Impact Study to determine if the request results in any transmission system constraints and if so, identifies the necessary additions or upgrades to the transmission system needed to accommodate the request. If necessary, the ITO, with the Transmission Owner, then conducts a Facilities Study to refine the cost and timeline estimates of any such additions or upgrades. After completion of the requisite studies, the ITO presents the Companies with a list of Conditions for Acceptance of the TSR and the Companies, as the Transmission Customer, make the final decision of whether to finalize the reservation of service.

c. See response to part (b).

d. Facilities on the Transmission System are generally "network" in nature, meaning the facilities enhance the overall reliability of the grid and are an ultimate benefit to all users of the system. The Transmission Owner's costs are recovered partially through the Open Access Transmission Tariff rate, meaning customers paying the OATT rate will bear some cost through their payment for usage of the Transmission System. LG&E/KU retail customers pay for transmission's cost of service in state approved bundled retail rates.

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 39

Responding Witness: Daniel Hawk / Elizabeth J. McFarland

Q-39. How will the Companies evaluate the transmission system impact from multiple data centers located in specific counties?

a. Will the Companies analyze the TSRs incrementally as they come in or incorporate a cluster approach? Please explain.

b. How will costs associated with incremental TSRs incorporate results from ongoing facility interconnection processes and who will cover those costs? Please include who would be responsible for both the interconnection and system upgrade costs.

A-39. See below.

a. The ITO studies TSRs serially, as they come in.

b. Each TSR incorporates the results of previous TSRs, unless the previous TSR has been withdrawn or declined. The costs associated with each TSR include only the incremental cost of that TSR, having incorporated previous TSRs. For responsibility for interconnection and system upgrade costs, see response to SREA 2-3. See also the response to Question No. 38(d).

KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Attorney General and Kentucky Industrial Utility Customers' Supplemental Request for Information
Dated May 2, 2025

Case No. 2025-00045

Question No. 40

Responding Witness: John Bevington / Tim A. Jones

Q-40. Refer to the Companies 3 pending Transmission Service Requests (TSR) (TSR LGE-2024-012, TSR LGE-2024-013, and TSR LGE-2024-014) totaling 1,252 MW and the Companies 1,750 MW of data center load included in the 2025 CPCN load forecast.

a. When did the Companies assume the 1,750 MW of data center load included in the 2025 CPCN Load Forecast to be online?

b. When did the Companies assume the 1,750 MW of data center load included in the 2025 CPCN Load Forecasts to have completed Transmission Service Requests?

c. What is the projected earliest in-service date for the TSRs referenced above. Please reconcile the TSR assumption to the CPCN Load forecast assumption and explain any differences.

d. For projects who have not yet completed a TSR, how did the Companies account for interconnection and system upgrades they may be needed to get the projects online? Please reconcile the assumptions to the CPCN load forecast assumption and explain any differences.

A-40.

a. By the end of 2031.

b. No assumptions were made regarding TSR completion in the load forecast.

c. The three cited TSRs do not total 1,252 MW. Of the five TSRs that do total to 1,252 MW, the earliest in-service date is 2026 for the Camp Ground Road data center (see the response to AG-KIUC 1-45(a)). At the time of the 2025 CPCN Load Forecast, there was some uncertainty about the precise timing of the first energy need. Because beginning to ramp up service in late 2026 versus January 2027 would not affect the analysis in this proceeding, the

2025 CPCN Load Forecast assumes data center load will begin service in 2027.

d. The assumption is that interconnection and system upgrades can occur coincident with or prior to new generation availability.