

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2024 JOINT INTEGRATED)
RESOURCE PLAN OF LOUISVILLE GAS AND) **CASE NO. 2024-00326**
ELECTRIC COMPANY AND KENTUCKY)
UTILITIES COMPANY)

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY
TO
THE ATTORNEY GENERAL’S INITIAL DATA REQUESTS
DATED NOVEMBER 21, 2024

FILED: December 18, 2024

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 16th day of December 2024.

Caroline J. Davison

Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:


January 22, 2027



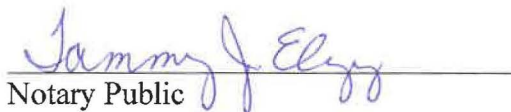
VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
 COUNTY OF JEFFERSON)

The undersigned, **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 16th day of December 2024.


 Notary Public

Notary Public ID No. KYNP61560

My Commission Expires:

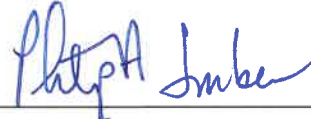
November 9, 2026



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

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 16 day of December 2024.



Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Charles R. Schram**, being duly sworn, deposes and says that he is Director – Power Supply 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.

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 December 2024.

Caroline J. Davison
Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Michael S. Sebourn**, being duly sworn, deposes and says that he is Manager – Generation Planning 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.



Michael S. Sebourn

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 16th day of December 2024.


Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

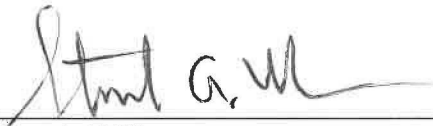
January 22 2027



VERIFICATION


COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Stuart A. Wilson**, being duly sworn, deposes and says that he is Director, Energy Planning, Analysis & 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.



Stuart A. Wilson

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 13th day of December 2024.

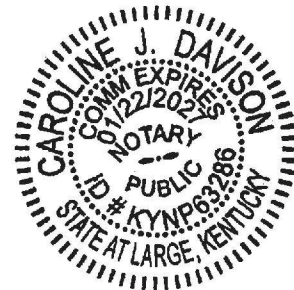


Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



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

**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 1

Responding Witness: Robert M. Conroy

- Q-1. Provide a copy of all confidential filings/workpapers filed with the Commission in this docket.
- A-1. The Companies have entered into a confidentiality agreement with the Attorney General ("AG") and provided the AG access to all confidential information the Companies have filed.

**LOUISVILLE GAS AND ELECTRIC COMPANY
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Case No. 2024-00326

Question No. 2

Responding Witness: Stuart A. Wilson

- Q-2. Confirm that the IRP is essentially a snap-shot in time, and does not represent firm resource commitments.
- A-2. Confirmed.

**LOUISVILLE GAS AND ELECTRIC COMPANY
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**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 3

Responding Witness: Michael S. Sebourn

- Q-3. Provide the estimated capital and operations and maintenance costs for the "Recommended Resource Plan" which begins on page 5-25 of Volume I of the IRP.
- A-3. See attachment being provided in a separate file. Certain information requested is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.

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

**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 4

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

Q-4. Provide an analysis of the rate impacts for the residential customer of average usage for implementation of the Recommended Resource Plan.

A-4. The Companies have not performed the requested analysis. Retail rates, particularly base rates for a particular rate class for each utility, are beyond the scope of this proceeding as defined by the Commission's IRP regulation, and they depend on numerous factors unspecified in this request. Notably, the Necessity, Function, and Conformity section of the Commission's IRP regulation does not address retail rates either in general or for a particular customer group; rather, it states:

This administrative regulation prescribes rules for regular reporting and commission review of load forecasts and resource plans of the state's electric utilities to meet future demand with an adequate and reliable supply of electricity at the lowest possible cost for *all customers* within their service areas, and satisfy all related state and federal laws and regulations.¹

The IRP regulation does require utilities to provide certain financial information, which the Companies provided in IRP Vol. I, Section 9, Financial Information. That information includes the nominal annual revenue requirements (in total and per kWh of forecast energy requirements) associated with the Companies' existing and approved supply-side resources plus the 2024 IRP Recommended Resource Plan in the Mid energy requirements, Mid Fuel case.

¹ 807 KAR 5:058 (emphasis added).

**LOUISVILLE GAS AND ELECTRIC COMPANY
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**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 5

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

- Q-5. Discuss whether data center proliferation as shown in the Companies load forecast increases, decreases, or leaves unchanged residential rates.
- a. Discuss the steps the Companies have taken or will take to mitigate negative rates impacts on residential customers (if any are forecasted) based on data center proliferation.
- A-5. See the responses to Question No. 4 and PSC 1-20.
- a. See the response to Question No. 4. Notwithstanding that retail rates are beyond the scope of this proceeding as defined by the Commission's IRP regulation, the Companies note that they have a clear obligation to serve *all* customers in their service territories.²

² See, e.g., *Electronic Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Hardin County, Kentucky*, Case No. 2022-00066, Order at 18 (Ky. PSC July 28, 2022) ("KU has a statutory obligation to serve Ford, and meet Ford's needs for retail electric service, even though Ford will require more power than any other customer on KU's system when Ford becomes fully operational. KU's obligation to serve is not altered or diminished in any way simply because Ford is uniquely situated and meeting Ford's needs for power will require KU to construct transmission facilities."); *An Assessment of Kentucky's Electric Generation, Transmission, and Distribution Needs*, Admin. Case No. 2005-0090, Order Appx. A at 60 (Ky. PSC Sept. 15, 2005) ("[T]he Commission concludes that Kentucky should preserve its current statutory and regulatory framework, which focuses primarily on the utilities' obligation to serve the electrical needs of customers within a defined service territory."); *Joint Application of Powergen PLC, LG&E Energy Corp., Louisville Gas and Electric Company, and Kentucky Utilities Company for Approval of a Merger*, Case No. 2000-00095, Order at 22-24 (Ky. PSC May 15, 2000) ("NAS asserted that serving existing and new Kentucky loads must be LG&E Energy's top priority. ... The Commission concurs that serving existing and new Kentucky load must be a high priority for LG&E Energy. ... In response to these concerns, PowerGen has committed to allowing LG&E and KU to acquire the necessary resources, whether through new generating capacity or firm contracts, in an effort to give priority to new and existing native load. ... The Commission will monitor the fulfillment of this commitment by the Applicants, including, if appropriate, the consideration of new base-load or intermediate-load generation."); *The Consideration and Determination of the Appropriateness of Implementing a Ratemaking Standard Pertaining to the Purchase of Long-Term Wholesale Power by Electric Utilities as Required in Section 172 of the Energy Policy Act of 1992*, Admin. Case No. 350, Order at 7 (Ky. PSC Oct.

Moreover, the Commission’s IRP regulation explicitly states that its purpose is to “prescribe[] rules for regular reporting and commission review of load forecasts and resource plans of the state's electric utilities to meet *future demand* with an adequate and reliable supply of electricity at the *lowest possible cost* for *all customers* within their service areas”³ This serves the interests of *all* customers, regardless of whether they are residential, commercial, or industrial customers, and regardless of whether they are existing, expanding, or new customers.

25, 1993) (“However, the Commission notes that a utility has a statutory obligation to serve the public.”); *Walter Callihan and Goldie Callihan v. Grayson RECC*, Case No. 10233, Order at 2-3 (Ky. PSC May 1, 1989) (“As a public utility, it has an obligation to serve all applicants for service located within its service territory.”).

³ 807 KAR 5:058 Necessity, Function, and Conformity (emphases added).

**LOUISVILLE GAS AND ELECTRIC COMPANY
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**Response to Attorney General’s Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 6

Responding Witness: Stuart A. Wilson

- Q-6. Discuss whether the capital costs at Table 6-4 have changed since the filing of the IRP.
- a. Discuss why the costs associated with different resources should not be compared against each other including but not limited to, the effect of intermittency of renewable resources, the technical limitations of battery resources (i.e. batteries are not generation resources), etc.
 - b. Confirm that intermittency poses problems for comparing resources based on a levelized cost of energy.
- A-6. The costs have not changed since the filing of the IRP.
- a. See Section 2 (Introduction) of Volume III, 2024 IRP Technology Update. This section explains that different generation technologies have different strengths and weaknesses and that the levelized cost of energy (“LCOE”) for a technology varies greatly depending on the load being served. LCOE is a poor metric for comparing resources with different operating characteristics. The technology costs in Table 6-4 should be compared from left to right (i.e., from IRP to IRP) and not across different technologies.
 - b. Any difference in operating characteristics causes LCOE to be a poor metric for comparing resource costs.

**LOUISVILLE GAS AND ELECTRIC COMPANY
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Case No. 2024-00326

Question No. 7

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

Q-7. See IRP Volume I at 5-26. “To develop the Recommended Resource Plan, the Companies started with the resource plan that is least-cost in the Mid load, Ozone NAAQS + ELG scenario and modified it to (1) support the potential for high economic development load growth and CO2 regulations and (2) have no regrets should high load or CO2 regulations not come to fruition.” See also *Trump taps former Rep. Lee Zeldin to lead EPA*, <https://www.utilitydive.com/news/trump-zeldin-epa-power-plant-carbon-ash-remand-stay/732616/> wherein it is speculated that EPA could revisit carbon, ozone transport, effluent limits and MATS rules, among others.

- a. Discuss the impact of the recent election results and the associated potential for dramatic changes to the regulatory landscape associated NAAQS and ELG on the Companies’ assumptions related to scenario planning.

A-7.

- a. The Companies recognize there is uncertainty in environmental regulation. To help address and analyze that uncertainty, the Companies included in their IRP analysis—conducted prior to the recent election—four different environmental scenarios, including an analysis of no new environmental regulations (the “No New Regulations” case). Notably, through 2032 there are no differences between the No New Regulations least-cost portfolios in the Mid and High Load cases compared to the least-cost portfolios in the Ozone NAAQS + ELG scenario (with solar cost sensitivity) in the same load cases other than (1) adding ELG compliance at Ghent and Trimble County and (2) a Ghent 2 SCR in the Ozone NAAQS + ELG scenario.⁴

That notwithstanding, the Companies believe it is reasonable to anticipate that additional, more restrictive federal environmental constraints beyond those addressed in the IRP analysis are unlikely to become final and enforceable during the next presidential administration. That includes the U.S.

⁴ See, e.g., IRP Vol. III, Resource Assessment Tables 25 and 27 at pages 44 and 47, respectively.

Environmental Protection Agency's recently announced proposed rulemaking concerning new source performance standards for stationary combustion turbines and stationary gas turbines, which, if made final and enforceable in their proposed form, would require selective catalytic reduction ("SCR") technology for all new natural gas combined cycle ("NGCC") units of the kind contemplated in the Companies' IRP. Note that, as explained in response to PSC 1-25(d), the Companies model new NGCCs with the expectation that they will require SCRs as part of the initial construction.

Regardless of the presidential administration, the EPA is obligated to manage the NAAQS program and the attainment process for each standard, inclusive of PM and Ozone, which are both challenging for Kentucky and a risk for the Companies' ongoing operations. Also regardless of the presidential administration, the EPA is obligated to finalize Clean Air Act Section 111 Greenhouse Gas standards for new and existing electric generating units. The EPA had the authority to implement the 2024 ELG standards, but it was not obligated to implement revised standards. Although not obligated, the first Trump administration revised ELG in 2020, and it is uncertain how or if the incoming administration will address the 2024 ELG.

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**Response to Attorney General's Initial Data Requests
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Case No. 2024-00326

Question No. 8

Responding Witness: Lonnie E. Bellar

- Q-8. Please provide copies of any LG&E or KU policy or policy statements regarding carbon free or net-zero emission goals.
- A-8. There are no such documents specific to LG&E and KU. LG&E's and KU's actions contribute to and help inform PPL's emission goals.

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

**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 9

Responding Witness: Lonnie E. Bellar

- Q-9. Please provide copies of any PPL policy or policy statements regarding carbon free or net-zero emission goals.
- A-9. PPL has a sustainability website that contains various information including policy statements regarding initiatives to advance a sustainable energy future for the communities, customers and stakeholders PPL serves. Refer to the following website: <https://www.pplweb.com/sustainability/environment/climate-action/>. This website contains a link to the PPL Climate Policy Principles (https://www.pplweb.com/wp-content/uploads/2022/08/PPL_Climate-Policy-Principles.pdf) and the 2021 PPL Climate Assessment Report (https://www.pplweb.com/wp-content/uploads/2022/01/PPL_Corp-2021-Climate-Assessment_2022-01-04.pdf).

**LOUISVILLE GAS AND ELECTRIC COMPANY
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**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 10

Responding Witness: Charles R. Schram

- Q-10. Confirm that LG&E/KU do not rely on solar or wind-generated electricity exclusively to provide power to any single customer twenty-four hours per day, seven days per week, three hundred sixty-five days per year. If unable to confirm, please identify customers so served by name and location, and provide the location of the generating facility.
- A-10. Confirmed.

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

**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 11

Responding Witness: Philip A. Imber

Q-11. Discuss whether the Companies have filed legal challenges to any of the following rules. If so, please provide a copy of the petition(s) challenging the applicable rule. If not, please explain why not:

- a. EPA's Greenhouse Gas (GHG) Emission rule for fossil fuel power plants, published in the Federal Register May 9, 2024;
- b. EPA's Coal Combustion Residual (CCR) rule for fossil fuel power plants, published in the Federal Register May 8, 2024;
- c. EPA's Effluent Limit Guidelines (ELG) rule for fossil fuel power plants that was published in the Federal Register May 9, 2024;
- d. EPA's Mercury and Air Toxic Standards (MATS) rule for fossil fuel power plants that was published in the Federal Register May 7, 2024.

A-11.

- a. The Companies have not directly filed a legal challenge to the EPA's GHG Emission rule for fossil fuel power plants. The Companies are funding members of the *Electric Generators for a Sensible Transition*, an *ad hoc* coalition of electric generating companies and a national trade association that have joined together for the purpose of filing petitions to review and stay the rule.
- b. The Companies have not directly filed a legal challenge to the EPA's Coal Combustion Residual ("CCR") rule for fossil fuel power plants. The Companies are funding members of *Utility Solid Waste Activities Group*, an *ad hoc* group that addresses solid and hazardous waste issues on behalf of the utility industry, which filed a petition to review the rule.
- c. The Companies have not directly filed a legal challenge to the EPA's Effluent Limit Guidelines ("ELG") rule for fossil fuel power plants. The Companies are funding members of *Utility Water Act Group*, an *ad hoc* group that focuses

on water-related environmental programs on behalf of the utility industry, which filed petitions to review and stay the rule.

- d. The Companies have not directly or indirectly filed a legal challenge to the EPA's Mercury and Air Toxic Standard ("MATS") rule for fossil fuel power plants. The Companies operate state of the art compliance and monitoring equipment with historic operating data that generally complies with the new standard. Challenges to this rule from the Kentucky Attorney General and other peer utilities are addressing the Companies' concerns with this rule. Although the new MATS rule reduces the Companies' compliance margin, increases testing complexity, reduces operational flexibility, and impacts operations and maintenance cost and activity, the Companies chose to focus their resources on addressing the more impactful rules.

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

**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 12

Responding Witness: Lonnie E. Bellar

- Q-12. Discuss whether the Companies have a preference for building new generation within Kentucky, outside of Kentucky or no preference either way. Please provide copies of any LG&E or KU policy or policy statements regarding the location of new generation.
- A-12. The Companies do not have a policy regarding the location of new generation. The Companies' resource planning objective is to develop a portfolio of supply- and demand-side resources that can reliably serve customers at the lowest reasonable cost, day and night, across a broad range of futures and weather scenarios. The Companies are open to generation located outside their balancing area but recognize this generation carries additional transmission-related costs.

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

**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 13

Responding Witness: Lonnie E. Bellar

- Q-13. Discuss whether the Companies have a preference for securing needed capacity on the open market or for building generation capacity.
- A-13. The Companies' planning objective is noted in the response to Question No. 12. With this objective, the Companies do not have a preference between securing capacity on the open market or building generation capacity.

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

**Response to Attorney General's Initial Data Requests
Dated November 21, 2024**

Case No. 2024-00326

Question No. 14

Responding Witness: Lonnie E. Bellar / Charles R. Schram

- Q-14. Discuss whether the Companies have a preference for dispatchable generation or intermittent generation.
- A-14. The Companies' planning objective is noted in the response to Question No. 12. The Companies do not have a preference for dispatchable or intermittent generation in meeting this objective.