

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC JOINT APPLICATION OF)	
KENTUCKY UTILITIES COMPANY AND)	
LOUISVILLE GAS AND ELECTRIC)	
COMPANY FOR CERTIFICATES OF)	
PUBLIC CONVENIENCE AND NECESSITY)	CASE NO. 2022-00402
AND APPROVAL OF A DEMAND SIDE)	
MANAGEMENT PLAN AND APPROVAL OF)	
FOSSIL FUEL-FIRED GENERATING UNIT)	
RETIREMENTS)	

RESPONSE OF
KENTUCKY UTILITIES COMPANY
AND
LOUISVILLE GAS AND ELECTRIC COMPANY
TO
THE KENTUCKY COAL ASSOCIATION'S
LAST SUPPLEMENTAL REQUEST FOR INFORMATION
DATED JUNE 27, 2023

FILED: JULY 7, 2023

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Chief Operating Officer for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, 220 West Main Street, Louisville, KY 40202, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 6th day of July 2023.



Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:


January 22, 2027



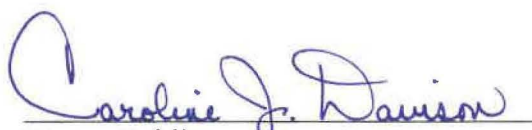
VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Philip A. Imber**, being duly sworn, deposes and says that he is Director – Environmental and Federal Regulatory Compliance for LG&E and KU Services Company, 220 West Main Street, Louisville, KY 40202, 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

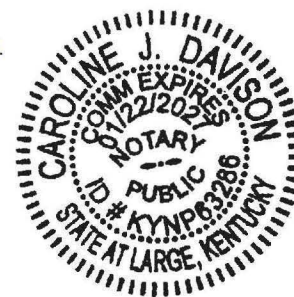
Subscribed and sworn to before me, a Notary Public in and before said County and State, this 30th day of June 2023.


Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



VERIFICATION

**COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)**

The undersigned, **Tim A. Jones**, being duly sworn, deposes and says that he is
Manager – Sales Analysis and Forecast for LG&E and KU Services Company, 220 West
Main Street, Louisville, KY 40202, 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**

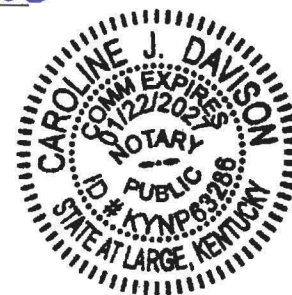
Subscribed and sworn to before me, a Notary Public in and before said County
and State, this 3rd day of July 2023.


_____ **Caroline J. Davison**
Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **David S. Sinclair**, 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 an employee of LG&E and KU Services Company, 220 West Main Street, Louisville, KY 40202, 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 S. Sinclair

David S. Sinclair

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 5th day of July 2023.

Caroline J. Davison

Notary Public

Notary Public ID No. KYNPL63286

My Commission Expires:

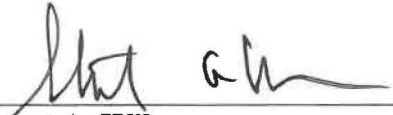
January 22, 2027



VERIFICATION

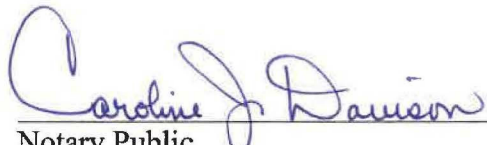
COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

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, 220 West Main Street, Louisville, KY 40202, 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 5th day of July 2023.



Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.1

Responding Witness: Philip A. Imber

- Q.4.1. Would the life extension costs for Mill Creek 1, Mill Creek 2, Ghent 2 and EB Brown 3 shown on Page 26 in SB4-1 attached to Direct Testimony of Stuart A. Wilson in Case 2023-00122 trigger New Source Review (NSR)? If yes, please explain how the NSR costs were reflected.
- A.4.1. Individually, the items referenced in the testimony could be replacement-in-kind and not result in emissions increases that trigger PSD BACT analysis. However, in the context of implementing multiple projects for life extension, the Companies would need to perform an economic assessment to determine NSR applicability. The Companies have not performed such analysis.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.2

Responding Witness: Lonnie E. Bellar

- Q.4.2. As it pertains to the previous question, please confirm that the plants could continue to operate for a period without life extension? If confirmed, please explain why that option was not considered and how long you would expect the plants to operate.
- A.4.2. The life extension projects are needed to continue operating the units safely and reliably. The timing of the need for these projects is the Companies' best assessment of when these projects will be needed based on extensive unit operating history and industry knowledge. Delaying these necessary projects while at the same time depending on reliable unit operation to meet customer needs was not considered.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.3

Responding Witness: Lonnie E. Bellar

- Q.4.3. Did the Companies directly support the Commonwealth's challenge to the GNR (*Commonwealth of Kentucky v. United States Environmental Protection Agency, et. al.*, Case No. 23-3216, 6th Cir., stay entered May 31, 2023, *see, e.g.*, <https://www.ag.ky.gov/Press%20Release%20Attachments/DN%2028%20Administrative%20Stay.pdf>)? If yes, please provide correspondence and/or interactions with the Commonwealth related to GNR. If not, please explain why not?
- A.4.3. No, the Companies did not directly support the Commonwealth's challenge. As discussed in AG-KIUC 3-3, the National Ambient Air Quality Standards require attainment and mitigation of upwind significant contributions "as expeditiously as practicable" but no later than the date provided in Table 1 to 40 CFR 51.1303(a). Even if Kentucky succeeds in reversing EPA's denial of Kentucky's SIP or invalidating the GNP, Kentucky will still likely have to submit a new SIP that includes some level of additional NO_x reductions deemed sufficient to meet its obligations in accordance with the applicable statutory timeline. Under these circumstances, it is unlikely that legal challenges, even if successful, would result in meaningful relief.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.4

Responding Witness: Lonnie E. Bellar

- Q.4.4. Please confirm that the Companies understand that absent the GNR, there is no immediate need to replace capacity and that ratepayers would realize lower rates. If not confirmed, please explain why it is not in the interest of ratepayers to delay their replacement.
- A.4.4. Not confirmed. See the response to AG-KIUC 3-3. Additionally, current Louisville Air Pollution Control District non-quality assured data for ground level ozone depicts a fourth highest 2023 design value that will result in a Jefferson County non-attainment redesignation in 2024. Furthermore, the relatively high operating costs for continued operation of Brown Unit 3 are not impacted by the Good Neighbor Plan.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.5

Responding Witness: Philip A. Imber

- Q.4.5. Are the Companies planning to provide comments on the EPA proposals for Sections 111(b) and 111(d) of the CAA currently due August 8, 2023? If yes, please characterize expected comments. If no, why not?
- A.4.5. The Companies have not made a final decision related to submittal of comments to the EPA proposals for Section 111(b) and 111(d). If comments are submitted, the Companies will supplement the data response.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.6

Responding Witness: Lonnie E. Bellar / David S. Sinclair / Stuart A. Wilson

- Q.4.6. Please confirm that the Companies have not conducted their own analysis as to the implications of making the two proposed NGCC's intermediate load plants (related to response to KCA 3.3, dated May 31, 2023).
- A.4.6. See the response to PSC 5-2.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.7

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

- Q.4.7. Given the load forecast is based upon an average of two percent per year increase in rates (*see*, Jones Testimony, Page 29, Lines 2-10 and response to KCA 1-68) and given the concession that rate growth in the first 10 years will be higher in the recommended plan versus continuing to operate the coal plants for a longer period, is it fair to assume load growth is overstated and/or do the Companies expect to receive a lower return on equity?
- A.4.7. The Companies disagree with the premise of the question. See the response to KCA 3-29 regarding the NPVRR of certain portfolios over the full analysis period. See also the response to PSC 1-33(b) regarding the use of a 2% annual rate increase assumption for load forecast purposes. That assumption is reasonable given the uncertainty of variables impacting long-term energy cost growth. Furthermore, as demonstrated in the referenced lines of the Jones Testimony and in response to PSC 1-33(b), demand for electricity is largely price inelastic and deviations from the 2% growth rate would not materially affect the load forecast. Moreover, it is not practical to undergo the iterative process of updating the load forecast to reflect the rate impacts of each resource plan and scenario.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.8

Responding Witness: Lonnie E. Bellar

- Q.4.8. Please address why the Mill Creek 1 closure is included in Case 2023-00122?
- A.4.8. The Companies included the proposed retirement of Mill Creek Unit 1 in their application in Case No. 2023-00122 because 2023 Ky. Acts 118, Section 2(1) states, "Prior to retiring an electric generating unit, a utility shall apply to the commission for an order approving the retirement"

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.9

Responding Witness: Philip A. Imber

- Q.4.9. Please comment on the likelihood of obtaining an air permit for Mill Creek NGCC in Jefferson County (*see, e.g.*, response to KCA Q.18, Supplemental Request for Information, dated April 14, 2023).
- A.4.9. As previously stated in SC 2-9, the Mill Creek NGCC proposed project reduces the air, water, and waste related impacts of operations at the Mill Creek Site. As a result, the project provides a positive benefit to public health and it advances reductions in NO_x, supporting the City's attainment goals for the 2015 Ozone National Ambient Air Quality Standards. The Companies submitted a permit that complies with all applicable regulations and nets out of New Source Review and the Potential for Significant Deterioration. The Companies fully intend to address any perceived deficiencies in the permit application process. As such, the Companies expect to obtain an air permit for the Mill Creek NGCC in Jefferson County.

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

**Response to Kentucky Coal Association's
Last Supplemental Request for Information
Dated June 27, 2023**

Case No. 2022-00402

Question No. 4.10

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

- Q.4.10. Please provide all evaluations performed by the Companies related to the impact of a severe weather event (e.g. Texas Winter Storm Uri of February 2021) on the ability of the Companies to provide reliable electrical service based on the requested CPCN and the potential cost to ratepayers and the Commonwealth in the scenario that the Companies fail to provide reliable power during the severe weather event.
- A.4.10. To assess a generation portfolio's reliability, the Companies evaluate the portfolio over a range of load and unit availability scenarios. The load scenarios are developed based on the weather experienced in each year from 1973 to 2021. Therefore, weather conditions like those the Companies experienced during Winter Storm Uri and the 2014 Polar Vortex are considered in the analysis, and the likelihood and duration of these events is assumed to be consistent with history. The Companies' goal in these analyses is to model all aspects of existing and new resources that materially affect their availability, and the cost of unserved energy is assumed to be \$21,000/MWh in 2028 dollars (see Table 11 in Appendix D, Exhibit SAW-1, page D-19).

A summary of this analysis for the proposed CPCN portfolio is included in Table 21 on page 38 of Exhibit SAW-1 (see "MC5/BR12 + Solar + DSM + BESS" generation portfolio). The same analysis is referenced in Table 5 on page 14 of Exhibit SB4-1 (see "Final CPCN Portfolio" generation portfolio). For these analyses, LOLE is calculated as an average overall load and unit availability scenarios. The Companies have not estimated the potential cost to ratepayers and the Commonwealth of a single weather event.