COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY SERVICE RELATED TO WINTER STORM ELLIOTT	**)**	**CASE NO. 2023-00422**

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY
TO
THE ATTORNEY GENERAL'S POST-HEARING DATA REQUESTS

DATED JUNE 14, 2024

FILED: July 8, 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

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 3rd day of July 2024.

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

LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY

Response to Attorney General's Post-Hearing Data Requests
Dated June 14, 2024

Case No. 2023-00422

Question No. 1

Responding Witness: Lonnie E. Bellar

Q-1. Provide the average equivalent availability factor for the Companies' fossil fuel-fired units for the five calendar year period 2019 through the end of 2023.

A-1. See the table below.

	2019	2020	2021	2022	2023
BR3	73.0%	88.4%	83.0%	87.1%	65.4%
GH1	86.5%	89.2%	78.9%	83.9%	91.7%
GH2	81.9%	95.5%	91.0%	90.0%	90.2%
GH3	88.4%	87.4%	91.0%	91.3%	85.0%
GH4	91.0%	77.8%	87.3%	87.1%	91.6%
MC1	79.5%	95.6%	81.8%	92.3%	93.4%
MC2	93.0%	92.8%	81.5%	83.9%	92.9%
MC3	71.9%	90.6%	83.4%	94.2%	99.1%
MC4	96.4%	83.2%	93.8%	78.2%	92.7%
TC1	83.2%	93.5%	76.0%	92.2%	89.8%
TC2	75.2%	83.1%	87.6%	85.4%	80.3%
CR7	92.4%	81.5%	90.6%	78.2%	86.1%
Coal + CC Fleet	84.9%	87.3%	86.3%	86.3%	87.7%

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Question No. 2

Responding Witness: Lonnie E. Bellar

Q-2. Provide the average equivalent availability factor for the Companies' Brown Solar facility for the five calendar year period 2019 through the end of 2023.

A-2. NERC GADS Rules for reporting solar unit statistics use Equipment Availability Factor (E-AF) in place of the Equivalent Availability Factor (EAF) used for conventional units. The Company is not required to report GADS events for the Brown Solar Facility under existing NERC rules. Per the NERC GADS Solar Generation Data Reporting Instructions (effective 1/1/2024), reporting is required for solar plants with a total installed capacity of 20 MW or greater for all inverter groups combined at the plant. Because the Brown Solar Facility does not meet this 20 MW threshold, the Companies do not track GADS events for the facility. Therefore, the Companies lack data regarding the categories of outages and associated hours that would be needed to calculate Equipment Availability Factor (E-AF) for the Brown Solar Facility.

However, using the revenue grade meter for Brown Solar and its 10 MW AC nameplate capacity, we calculate a 19.19% average capacity factor for the five-year period from 2019 through 2023. The table below show the annual breakdown. Please note that Brown Solar generation is degrading annually due to buildup of sediment on the panels.

Year	Annual Energy (kWh)	Capacity Factor
2019	17,485,788.00	19.96%
2020	16,604,040.00	18.95%
2021	16,527,072.00	18.87%
2022	17,042,336.00	19.45%
2023	16,410,976.00	18.73%