

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)
UTILITIES COMPANY FOR APPROVAL OF)
SPECIAL CONTRACT BETWEEN KENTUCKY) **CASE NO. 2023-00123**
UTILITIES COMPANY AND BLUEOVAL SK, LLC)

RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION
DATED JULY 12, 2023

FILED: JULY 28, 2023

VERIFICATION

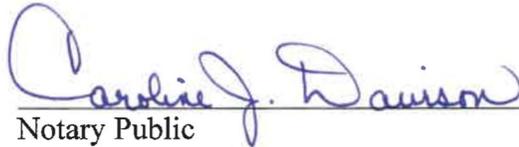
COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Stuart A. Wilson**, being duly sworn, deposes and says that he is Director – Energy Planning, Analysis & Forecasting for Kentucky Utilities Company, 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 18th day of July 2023.



Notary Public

Notary Public ID No. KYNP63286

My Commission Expires:

January 22, 2027



KENTUCKY UTILITIES COMPANY

**Response to Commission Staff's Second Request for Information
Dated June 12, 2023**

Case No. 2023-00123

Question No. 1

Responding Witness: Michael E. Hornung

- Q-1. Refer to KU's response to Commission Staff's First Request for Information (Staff's First Request), Items 3 and 6. Given that BlueOval SK, LLC's (BlueOval SK) demand and energy usage are unique to KU's system, explain whether BlueOval SK will be included in future cost of service studies as its own customer class. If not, explain how it will be incorporated in future cost of service studies.
- A-1. Consistent with past rate case proceedings and cost of service studies, special contract customers are a separate customer class from the standard rate schedule classes. BlueOval SK will be treated in the same manner as a special contract customer.

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Request for Information
Dated July 12, 2023

Case No. 2023-00123

Question No. 2

Responding Witness: Stuart A. Wilson

- Q-2. Refer to the Direct Testimony of Stuart A. Wilson, page 3, lines 12–19 and page 4, lines 1–9. Provide the cost and operational characteristics of the natural gas combined cycle unit and compare to the applicable National Renewable Energy Laboratory Annual Technological Baseline.
- A-2. See below. In the 2020 ATB, fixed O&M for a greenfield NGCC was \$11-12/kW-year (real 2018 dollars). However, starting with the 2021 ATB, NREL transitioned from using the EIA Annual Energy Outlook for NGCC cost estimates to the DOE's Office of Fossil Energy and Carbon Management, and the DOE cost estimates include property taxes and insurance. Property taxes and insurance are not included in the Brown NGCC fixed O&M estimates. Instead, they are included as components of capital revenue requirements and decline over time as the asset is depreciated. In the first full year of operation, property taxes and insurance for the Brown NGCC are approximately \$2.61/kW-year (2029 dollars). By way of comparison, PJM's 2026-2027 CONE Report provides an itemization of O&M costs for NGCCs that indicates sums of property taxes and insurance ranging from \$9.81/kW-year to \$21.14/kW-year in 2028 dollars.¹

¹ PJM 2026-2027 CONE Report at 34, Table 9, available at <https://www.pjm.com/-/media/library/reports-notices/special-reports/2022/20220422-brattle-final-cone-report.ashx> (accessed July 27, 2023). The report provides costs in 2026 dollars, which the Companies inflate two percent annually to convert to 2028 dollars.

Input Assumption	NREL 2023 ATB Greenfield NGCC (H-Frame); 2028 In-Service²		Brown NGCC
	Real 2021 Dollars	2028 Dollars³	2028 Dollars
Summer Capacity (MW)	Not Specified	Not Specified	621
Winter Capacity (MW)	Not Specified	Not Specified	641
Ramp Rate (MW/min)	Not Specified	Not Specified	85
Heat Rate (mmBtu/MWh)	6.14	6.14	6.16
Capital Cost (\$M)	Not Specified	Not Specified	699
Capital Cost (\$/kW)	1,082	1,243	1,108
Fixed O&M (\$/kW-yr)	29.00	33.31	6.59
Firm Gas Transport (\$/kW-yr)	Not Specified	Not Specified	17.85
Variable O&M (\$/MWh)	1.87	2.15	1.08

² Source: <https://atb.nrel.gov/electricity/2023/data>.

³ NREL's cost estimates, which are provided in real 2021 dollars, were converted to 2028 dollars assuming two percent annual inflation.