

VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF HAMILTON)

The undersigned, Bruce Sailors, Director Jurisdictional Rate Administration, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

Bruce L. Sailors
Bruce Sailors Affiant

Subscribed and sworn to before me by Bruce Sailors on this 11TH day of APRIL,
2023.



ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires 01-05-2024

Adele M. Frisch
NOTARY PUBLIC

My Commission Expires: 1/5/2024

VERIFICATION

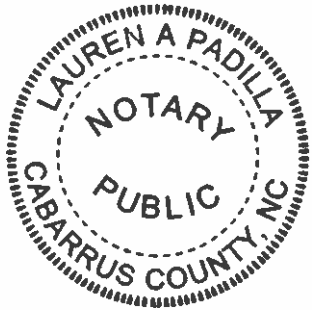
STATE OF NORTH CAROLINA)
) **SS:**
COUNTY OF MECKLENBURG)

The undersigned, Paul Halstead, Director Jurisdictional Rate Administration, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief



Paul Halstead Affiant

Subscribed and sworn to before me by Paul Halstead on this 11 day of April,
2023.





NOTARY PUBLIC

My Commission Expires: 3/3/27

KyPSC Case No. 2022-00372
TABLE OF CONTENTS

| <u>DATA REQUEST</u> | <u>WITNESS</u> | <u>TAB NO.</u> |
|----------------------------|--------------------------------------|-----------------------|
| STAFF-DR-04-001 | Bruce Sailers | 1 |
| STAFF-DR-04-002 | Bruce Sailers | 2 |
| STAFF-DR-04-003 | Bruce Sailers | 3 |
| STAFF-DR-04-004 | Bruce Sailers Paul Halstead | 4 |

Duke Energy Kentucky
Case No. 2022-00372
STAFF Fifth Set Data Requests
Date Received: April 10, 2023

STAFF-DR-05-001

REQUEST:

Refer to Duke Kentucky's response to Commission Staff's Third Request for Information (Staff's Third Request), Item 9b. Explain the methodology that was used to determine the avoided capacity costs and any sources used.

a. When determining qualified facilities' (QF) rates, explain the outcome of having lower avoided capacity costs.

b. Explain if the avoided capacity values are based on the characteristics attributable to the generation unit(s) that are planned to replace Eastbend. If not, explain why not.

RESPONSE:

The Company provided STAFF-DR-03-009(b) Confidential Attachment as support for the calculation of the capacity purchase rate. The data incorporated is sourced from internal Company financial data except for two items. The current cost of the combustion turbine is from Burns & McDonnell, Inc. The Technology Specific Inflation Rate is developed from Energy Information Administration data. The methodology used to determine the avoided capacity costs is sometimes referred to as the Peaker Method where the cost to construct a new combustion turbine is calculated and then levelized to result in an annual \$/kW value. This annual \$/kW value is escalated through 2027 and the annual values are then used to calculate 2- and 5-year capacity purchase rates observed in the cogeneration tariffs.

a. The Company assumes that Staff refers to the impact on cogeneration participation. While general economic theory would suggest that a lower avoided capacity cost (i.e. QF capacity purchase rate) would lead to lower participation, this conclusion is uncertain for a specific area such as the Duke Energy Kentucky service area. Other factors may exist that impact cogeneration participation such as the availability of suitable sites for the construction of cogeneration plants. However, consistent with PURPA, the values calculated ensure that cogeneration capacity is purchased at the avoided capacity cost that the Company would incur to build a new combustion turbine.

b. No, they are not. The generation unit(s) that will replace East Bend are not yet known. But this information would likely not change the Company's proposed use of the Peaker Method. The Peaker Method is commonly used to determine the avoided capacity cost (i.e., QF capacity purchase rate) and is consistent with short-term, as available capacity. This methodology is used across many of the Duke Energy service areas. Generally, a combustion turbine is considered the type of unit with the shortest construction period which matches well with short term, as available capacity purchases.

PERSON RESPONSIBLE: Bruce L. Sailors

Duke Energy Kentucky
Case No. 2022-00372
STAFF Fifth Set Data Requests
Date Received: April 10, 2023

STAFF-DR-05-002

REQUEST:

Refer to Bruce Sailers Direct Testimony (Sailers Direct Testimony), Schedule L-2.1, pages 137-138, Cogeneration and small power production sale and purchase tariff-greater than 100 kW (QF Tariff). Provide all supporting workpapers to support the QF rates in this proceeding. If the Duke Kentucky is relying on analysis from a previous case, please provide the documentation and workpapers that were relied upon at the time. If Duke Kentucky is relying on previous calculations, explain why the previous analysis still applies. Where applicable, provide the responses in an unlocked Excel spreadsheet with all formulas, columns, and rows unprotected and fully accessible.

RESPONSE:

The Company did not propose new rates for the referenced tariff sheet in this proceeding. The QF Tariff rates were filed in February 2022 and accepted in March 2022 as discussed in response to STAFF-DR-03-009 CONF. The calculation of the avoided capacity costs (i.e., purchase rates) are available in STAFF-DR-03-009(b) Confidential Attachment. The analysis still applies given the recency of the filing and the use of data from the 2021 IRP which is the most recent filed IRP. The cogeneration tariff rates are updated every two years per Commission direction. Given the recency of the cogeneration tariff revision, the Company did not propose new rates in this proceeding.

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2022-00372
STAFF Fifth Set Data Requests
Date Received: April 10, 2023

STAFF-DR-05-003

REQUEST:

Refer to Sailers Direct Testimony, Schedule L-2.1, pages 135-138, QF Tariffs. Provide an updated avoided capacity calculation reflective of current conditions. Explain how Duke Kentucky's updated avoided capacity calculation is consistent with recent Commission Orders in Case No. 2021-00198,¹ and Case No. 2020-00174². If not consistent, explain how the updated avoided capacity calculations differs and justify any deviation. Provide all workpapers for your response in an unlocked Excel spreadsheet with all formulas, columns, and rows unprotected and fully accessible.

RESPONSE:

The calculations filed in March 2022 use inputs from the most recently filed IRP for the Company, the 2021 IRP. See the Company's responses to STAFF-DR-05-001 and STAFF-DR-05-002. An updated avoided capacity calculation has not been completed.

Regarding avoided capacity cost and the referenced proceedings, in Case No. 2020-00174, the Commission concluded that the PJM Net Cone value is an appropriate avoided capacity cost and in Case No. 2021-00198, the Commission ordered the use of the most current BRA results. But unlike East Kentucky Power Cooperative, Duke Energy Kentucky

¹ Case No. 2021-00198 *Electronic Tariff Filing of East Kentucky Power Cooperative, Inc. and Its Member Distribution Cooperatives for Approval of Proposed Changes to Their Qualified Cogeneration and Small Power Production Facilities Tariffs* (Ky. PSC Oct. 26, 2021).

² Case No. 2020-00174 *Electronic Application of Kentucky Power Company for (1) A General Adjustment of Its Rates for Electric Service; (2) Approval of Tariffs and Riders; (3) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; (4) Approval of a Certificate of Public Convenience and Necessity; and (5) All Other Required Approvals and Relief* (Ky. PSC May 14, 2021).

does not secure capacity through the PJM RPM construct (i.e., capacity auction). The Company is an FRR entity and is responsible to supply the capacity requirement for serving Duke Energy Kentucky load. Therefore, the Company relied on the Peaker Method using information consistent with the 2021 IRP. The Company acknowledges that Kentucky Power is also an FRR entity and the 2020-00174 order concluded that Net CONE should be used for their cogeneration tariff. However, the Company also reviewed Case No. 2020-00349 where the Commission did not adopt but accepted the use of the Peaker Method in that case. Therefore, the Company incorporated the Peaker Method in its February 2022 filing resulting in fair and reasonable capacity purchase rates for Duke Energy Kentucky's cogeneration tariffs.

PERSON RESPONSIBLE: Bruce L. Sailors

REQUEST:

Refer to Duke Kentucky's response to Staff's Third Request, Item 34(d) and (e). The responses are unresponsive. Subpart (d) should have included any necessary documentation or calculations. Subpart (e) should provide all calculations and all workpapers. Provide the information requested or state if the information is provided elsewhere and the location. In addition, provide each response to the subparts below in a live, unlocked Excel spreadsheet with all formulas, columns, and rows unprotected and fully accessible as well as all associated workpapers, any referenced materials, and any data linked that is external to a workpaper.

- a. Explain, in detail, what Duke Kentucky is referring to by "may not be configured or under utility control in a manner that meets all categories of value or provides the same level of value." At a minimum, provide the following:
 - i. Identify and explain how Clean Energy Connection (CEC) facilities will be configured differently than all QFs;
 - ii. Explain what is meant by control and how CEC and qualifying facilities are controlled differently;
 - iii. Identify each category of value referred to and provide the value ascribed to both CEC facilities and QFs; and
 - iv. Explain how each of the characteristics identified in (i) and (ii) relate to the value and provide support for differing each value.

b. Explain the methodologies and provide all calculations for each value within the CEC value stack.

c. Explain the methodologies and provide all calculations for each value provided to QFs.

d. Where values differ for CEC facilities and QFs in (b) and (c) above, provide an explanation for the deviations, a method, and quantification for each variation. For example, quantifying the delta's of the energy value of a "short term, as available agreement" vs the "long-term, IRP based analysis."

RESPONSE:

a. First and foremost, CEC is not a QF proposal. There are requirements established by PURPA and FERC and Kentucky that impact how a QF avoided capacity cost (i.e purchase rate) is determined. The Company does not propose to treat CEC as a QF. The intent of the wording "configured and controlled" is the CEC facility will be designed, controlled and maintained by the Company. A CEC program is designed and intended to provide customers who do not wish to or cannot own their own solar generation with the opportunity to participate directly in the utility's solar generation. Participating customers are subscribers who voluntarily elect to pay costs and receive credits based on the calculated system costs and benefits of a utility owned solar unit. The balance of the value from that unit, becomes part of the system value provided to all customers in accordance with the utility's normal demonstration of unit value through the CPCN process. The solar unit operates as a fully integrated part of the utility system. Because a CEC program bridges a gap between customer owned solar that could be part of a net metering program and utility owned solar that is embedded in the overall system, final rates in the CEC tariff will incorporate the value streams set forth in a traditional utility CPCN

filing and may be influenced by the value structure established in the net metering revisions the Company has committed to filing shortly after the order in this case. In contrast, QF rates are set in accordance with the avoided cost principles established in the Commonwealth's implementation rules for PURPA. These rules give the QF generator significant latitude to determine when and at what level to deliver power to the utility and the QF rate for a specific provider is established based on the avoided costs of the utility that would have been incurred but for the purchase from the QF which may include avoided capacity and energy.

b. The Company's goal with this filing is to provide the framework required within a rate case to ensure a placeholder for a customer CEC tariff. Calculation of the potential tariff credits/charges are intended to be illustrative since the specific values for the unit cost and performance will be determined through the CPCN. The Company's goal is to provide a framework for the Commission to approve the CEC program in principle in this rate case. Actual costs and credits to customers will be determined in concert with the proposed system benefits demonstrated through the CPCN. It is also important to note that participation in the CEC program is voluntary for customers. The value of the solar unit as a whole will be demonstrated and approved by the Commission through the CPCN. The CEC will exist as a mechanism to share that value with customers who wish to participate directly in the solar generation project.

c. Please see the responses to STAFF-DR-05-001 through 003.

d. As discussed in responses (a) and (b) above the QF rates are comprised of both capacity and energy values and determined by guidelines from PURPA, FERC, and the Commonwealth of Kentucky. The QF avoided energy value is the real-time LMP for energy when delivered by the QF contrasted with CEC's long-term forward-looking LMP

position. For capacity, the QF rate is based on the Peaker Method aligned with PURPA/FERC/Commonwealth guidelines for short-term, as available capacity purchases. For CEC, the life of project value would be demonstrated through an Integrated Resource Plan scenario leveraging the long term NPV cost-benefit analysis show the system value of the CEC facility.

PERSON RESPONSIBLE: Bruce L. Sailors (regarding QF calculations)
Paul L. Halstead (regarding CEC calculations)