

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2024 INTEGRATED RESOURCE)	CASE NO.
PLAN OF DUKE ENERGY KENTUCKY, INC.)	2024-00197

COMMISSION STAFF'S POST-HEARING REQUEST FOR INFORMATION
TO DUKE ENERGY KENTUCKY, INC.

Duke Energy Kentucky, Inc (Duke Kentucky), pursuant to 807 KAR 5:001, shall file with the Commission an electronic version of the following information. The information requested is due no later than January 20, 2025. The Commission directs Duke Kentucky to the Commission's July 22, 2021, Order in Case No. 2020-00085¹ regarding filings with the Commission. Electronic documents shall be in portable document format (PDF), shall be searchable, and shall be appropriately bookmarked.

Each response shall include the question to which the response is made and shall include the name of the witness responsible for responding to the questions related to the information provided. Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or the person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

¹ Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC July 22, 2021), Order (in which the Commission ordered that for case filings made on and after March 16, 2020, filers are NOT required to file the original physical copies of the filings required by 807 KAR 5:001, Section 8).

Duke Kentucky shall make timely amendment to any prior response if Duke Kentucky obtains information that indicates the response was incorrect or incomplete when made or, though correct or complete when made, is now incorrect or incomplete in any material respect.

For any request to which Duke Kentucky fails or refuses to furnish all or part of the requested information, Duke Kentucky shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied and scanned material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations. When filing a paper containing personal information, Duke Kentucky shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Identify all startup failures or other issues that have occurred at Woodsdale Station resulting in a derate or outage for the years 2019 through November 2024, by month. Include in the response the issue, identify whether it resulted in a derate or an outage and provide the length of outage.
2. State the earliest year that a natural gas combined cycle (NGCC) unit could be constructed and placed in service.
3. Provide a copy of Duke Kentucky's most recent demand side management (DSM) study.

4. Provide a calculation of the average residential customer credit received as a result of Duke Kentucky's approximately \$800,000 credit created by providing energy to PJM during Winter Storm Elliott.

5. Regarding the optimized portfolios, under both the with the EPA CAA Section 111 update and without the EPA CAA Section 111 update, under the full natural gas conversion portfolio:

a. If generation units that are converted from coal fired to 100 percent natural gas fired or are retired and replaced with a combined cycle gas turbine (CCGT), only run up to 40 percent load factor to avoid modeling or adding carbon capture and sequestration (CCS) requirements, explain whether PJM lowers the unit's accredited capacity by 60 percent even though the unit's available maximum capacity will not have changed.

b. If the response to 5(a) is that the unit's accredited capacity is unchanged by the conversion, assume that PJM calls the unit to run above a 40 percent load factor, explain whether the utility will be subject to EPA penalties.

6. Refer to Duke Kentucky's response to Commission Staff's First Request for Information (Staff's First Request), Item 18, Attachment, Tab Figure 6.1 PVRR (\$000) – Optimized With EPA CAA Section 111 Update.

a. Compare the cost information in 111 Scenario with DFO Conversion 2030 (DFO Conversion) with cost information in 111 Scenario East Bend 2 Retires 2032 (Retires 2032). As the costs are incurred in each of the scenarios, explain the reasons for the cost differences between the two scenarios over the forecast period.

b. For the DFO conversion scenario, explain whether the EnCompass model maintains a 50/50 natural gas to coal burn over the forecast period and that the forecast coal and natural gas prices are the same for all scenarios, both with and without the EPA CAA Section 111 Update.

c. Other than the differences and timing of the fuel mixes between the two scenarios and the timing of the transition to a combined cycle gas turbine, explain the differences in the cumulative costs throughout the forecast period.

d. Explain why the DFO Conversion is beneficial to customers when they must wait until 2040 for the scenario to be cost effective and the basis for the Preferred portfolio.

e. Confirm that CCS is not included in these scenarios because East Bend Station as a base load unit does not run above a 40 percent load factor. If not confirmed, explain why it is not modeled.

7. Refer to Duke Kentucky's response Staff's First Request, Item 18, Attachment, Tab Figure 6.3 PVRR (\$000) – Optimized Without EPA CAA Section 111 Update. Regarding the different cost information provided:

a. In the absence of the EPA CAA Section 111 Update, explain why the DFO Conversion portfolio (Duke Kentucky's preferred portfolio) is still better for customers.

b. Other than the differences and timing of the fuel mixes between the two scenarios and the timing of the transition to a combined cycle gas turbine, explain the differences in the cumulative costs throughout the forecast period.

c. Confirm that CCS is not included in these scenarios because East Bend as a base load unit does not run above a 40 percent load factor. If not confirmed, explain why it is not modeled.

8. Refer to Case No. 2024-00354,² Direct Testimony of Ibrar A. Khera, page 7, lines 1 through 4 and the hearing video transcript of 2024-00197,³ time stamps 07:12:12-07:12:36 and 07:12:49-07:13:27. Provide clarification regarding the commitment of a large energy intensive commercial customer locating in Duke Kentucky's service area.

9. Refer to Case No. 2024-00285,⁴ Application, page 11. Duke Kentucky indicates that the transfer to full Reliability Pricing Model (RPM) participation in PJM best protects customers from the risk of a large energy intensive customer locating in its service territory and requiring service prior to Duke Kentucky being able to build or acquire generation.

a. Provide an updated load forecast based upon a hypothetical energy intensive customer locating in Duke Kentucky's service territory and requiring service prior to it being able to build or acquire generation. The response should include two different forecasts, one with the customer being a large industrial or manufacturing entity that will require more than one hundred of long-term employees located in the territory

² Case No. 2024-00354, *Electronic Application of Duke Energy Kentucky, Inc. For: 1) An Adjustment of The Electric Rates; 2) Approval of New Tariffs; 3) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; And 4) All Other Required Approvals and Relief* (filed Dec 2, 2024), Application, Volume 16 at 168.

³ Hearing Video Transcript of the Dec. 10, 2024 Hearing at 07:12:12-07:12:36 and 07:12:49-07:13:27.

⁴ Case No. 2024-00285 *Electronic Application of Duke Energy Kentucky, Inc. to Become a Full Participant in the PJM Interconnection LLC, Base Residual and Incremental Auction Construct for the 2027/2028 Delivery Year and for Necessary Accounting and Tariff Changes* (filed Sep. 6, 2024) at 11.

after construction and the other being a large load customer, such as a data center, requiring less than 50 long-term employees located in the territory after construction.

b. Utilizing each of the two updated hypothetical load forecasts and all else being equal, rerun the EnCompass model's resource optimization and production cost routines for Duke Kentucky's six optimized portfolios represented in IRP table 6.1-6.6, pages 43-45.

c. Also provide the associated present value revenue requirement (PVRR) for the new analyses run similar to that provided in Duke Kentucky's response to Staff's First Request, Item 18.



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DATED DEC 16 2024

cc: Parties of Record

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