

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 SECOND 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 on October 16, 2024. 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. On September 6, 2024, Duke Kentucky filed its application to the Commission to become a full participant in the PJM base residual and incremental auction construct for the 2027/2028 delivery year and for necessary accounting and tariff changes.²

² See Case No. 2024-00285, *In the Matter of the 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 Sept. 6, 2024).

a. Identify the time interval between when the Integrated Resource Plan (IRP) modeling was completed, and the decision was made to switch to a PJM reliability pricing model (RPM) construct.

b. Provide any meeting minutes, notes, or correspondence relating to the decision to switch to the RPM construct.

2. Refer to Duke Kentucky's IRP, page 39 and Figure 7.1 page 61. Assume that the Commission grants Duke Kentucky's request to transition to PJM's RPM construct, provide an update to Duke Kentucky's EnCompass modeling and explain what effect, if any, this change would have on Duke Kentucky's IRP modeling outcomes and whether a different Preferred Plan would likely be a result.

3. Refer to Duke Kentucky's IRP, Figure 7.1 page 61.

a. Explain whether the EnCompass model takes stranded costs into account when it retires an asset.

b. In Figure 7.1, the East Bend generator is converted to dual fuel in 2030 and then retired in 2038. State how much of the conversion cost will be recovered between conversion and retirement.

c. If the cost to convert the East Bend generator is not fully recovered, explain why it would not be more economical to build the combined cycle unit earlier and then add carbon capture technology at a later date, if ultimately required, rather than undergo the dual fuel transition cost.

d. Confirm that, after the East Bend generator is retired and a combined cycle generator is brought on-line, the new generator would include carbon capture and sequestration technology. If not confirmed, explain why not.

4. Refer to Duke Kentucky's IRP, page 39. Explain whether the risks of acquiring or contracting for assets outside Duke Kentucky's service territory and the PJM Duke Energy Ohio/Kentucky (DEOK) zone are ameliorated in any way if Duke Kentucky were to transition to an RPM construct as opposed to Fixed Resource Requirement (FRR).

5. Refer to Duke Kentucky's IRP, Table H.3 page 153. Refer also to Case No. 2024-00285, the Direct Testimony of John D. Swez, page 7.³ In Table H.3, Duke Kentucky lists firm capacity from existing resources of 888 MW summer and 959 MW winter in 2024. In Mr. Swez's testimony, summer firm capacity is listed as 1,076 MW. Confirm that the difference between these amounts is installed capacity (ICAP) versus unforced capacity (UCAP). If not, explain what the difference represents.

6. Refer to Duke Kentucky's IRP, Figure 7.1 page 61 and Table H.3 page 153.

a. Confirm that the data presented in Table H.3 is based on Duke Kentucky's Preferred Portfolio presented in Figure 7.1. If not, explain which portfolio generated the data in Table H.3.

b. Under PJM's FRR construct, explain whether and how the EnCompass model allows the sale of excess capacity, either in the PJM incremental auction or through bi-lateral contracts.

c. Under PJM's RPM construct, explain whether and how the EnCompass model allows the sale of excess capacity into the Base Residual Auction, Incremental Auctions or through bi-lateral contracts.

³ Case No. 2024-00285, (filed Sept. 6, 2024), Application, Direct Testimony – John Swez.

d. If excess capacity sales are allowed under either FRR or RPM constructs, explain whether the modeled sales differ according to Duke Kentucky's differing amounts of seasonal excess capacity.

7. Refer to Duke Kentucky's response to Commission Staff's First Request for Information (Staff's First Request), Item 14. Explain what historical DEOK PJM7a ERA-5 wind speed profiles were used in the IRP modeling.

8. Refer to Duke Kentucky's IRP, Appendix B, Table B.2 and to Duke Kentucky's response to Staff's First Request, Item 27.

a. Provide a copy of Itron, Inc.'s statistically adjusted end-use (SAE) methodology that explains the use and derivation of the Heating SAE term, Cooling SAE term, and Other SAE term variables used in the Residential Usage and Commercial Sales regressions.

b. Identify the source and provide a copy of any data used to derive the weather and the economic variables used in both the Quarterly OPA sales and the Industrial sales regressions.

9. Refer to Duke Kentucky's response to Staff's First Request, Item 37a. The response seems to indicate that the Neighborhood Energy Saver program team is willing to and able to work with Habitat for Humanity and the housing authority to explain and promote the program. Explain whether the program team does work with these organizations and if not, which organizations are program team partners.

10. Refer to Duke Kentucky's responses to Attorney General's First Request for Information, Item 5 and to Joint Intervenors' First Request for Information, Item 14.

- a. Based on Duke Kentucky's responses and any other information, compare the reliability of coal-fired generation to other dispatchable generation.
- b. Identify any data sources, studies, and treatises Duke Kentucky has relied upon to compare the reliability of different types of dispatchable generation.



Linda C. Bridwell, PE
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

DATED SEP 23 2024

cc: Parties of Record

*Amy B Spiller
Associate General Counsel
Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201

*John Horne
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KENTUCKY 40601-8204

*Angela M Goad
Assistant Attorney General
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KENTUCKY 40601-8204

*Kristin Henry
Staff Attorney
Sierra Club Environmental Law Program
2101 Webster Street
Suite 1300
Oakland, CALIFORNIA 94612

*Ashley Wilmes
Kentucky Resources Council, Inc.
Post Office Box 1070
Frankfort, KENTUCKY 40602

*Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45202

*Byron Gary
Kentucky Resources Council, Inc.
Post Office Box 1070
Frankfort, KENTUCKY 40602

*Larry Cook
Assistant Attorney General
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KENTUCKY 40601-8204

*Debbie Gates
Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201

*Michael West
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KENTUCKY 40601-8204

*Tom Fitzgerald
Kentucky Resources Council, Inc.
Post Office Box 1070
Frankfort, KENTUCKY 40602

*Minna Sunderman
Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201

*Joe F. Childers
Childers & Baxter PLLC
300 Lexington Building, 201 West Sho
Lexington, KENTUCKY 40507

*Rocco O D'Ascenzo
Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45201