

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF DUKE ENERGY)	
KENTUCKY, INC. FOR A CERTIFICATE OF)	
PUBLIC CONVENIENCE AND NECESSITY TO)	
CONVERT ITS WET FLUE GAS)	
DESULFURIZATION SYSTEM FROM A)	
QUICKLIME REAGENT PROCESS TO A)	CASE NO.
LIMESTONE REAGENT HANDLING SYSTEM AT)	2025-00002
ITS EAST BEND GENERATING STATION AND)	
FOR APPROVAL TO AMEND ITS)	
ENVIRONMENTAL COMPLIANCE PLAN FOR)	
RECOVERY BY ENVIRONMENTAL)	
SURCHARGE MECHANISM)	

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 March 19, 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

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).

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.

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. Refer to the Direct Testimony of Chad M. Donner (Donner Direct Testimony), page 7, lines 10-23. Provide the capital costs for each of the identified workstreams associated with the Wet Flue Gas Desulfurization (WFGD) unit to enable

the East Bend Unit to meet the new Environmental Protection Agency's (EPA) Mercury and Air Toxics Standard (MATS) Rule.

2. Indicate whether Duke Kentucky has considered the option of fuel switching or the application of other back-end technologies that can be applied to meet the new EPA MATS regulations. If so, identify those options and technologies as well as the associated cost of each.

3. Refer to the Direct Testimony of John Verderame (Verderame Direct Testimony), page 10. Provide the most recent supplier's magnesium enhanced lime (MEL) secondary response to the Duke Kentucky long-term MEL request for proposal or, if no secondary response exists, the offer that resulted in the described agreement in principle.

4. Refer to the Verderame Direct Testimony, page 28.

a. Provide the detailed description of the modeling along with the relevant inputs that Duke Kentucky utilized to analyze the 100 percent conversion to natural gas alternative of the East Bend Unit.

b. If no modeling of this alternative was performed, explain why.

c. List details of any potential benefits or liabilities that could be realized if East Bend was converted to 100 percent natural gas.

5. In Case No. 2024-00152,² the estimated capital cost of the Limestone Conversion Project was \$125.8 million. Refer to the Application for Case 2025-00002,

² Case No. 2024-00152, *Electronic Application of Duke Energy Kentucky, Inc. for a Certificate of Public Convenience and Necessity to Convert Its Wet Flue Gas Desulfurization System from a Quicklime Reagent Process to a Limestone Reagent Handling System at Its East Bend Generating Station and for Approval to Amend Its Environmental Compliance Plan For Recovery by Environmental Surcharge Mechanism* (Ky. PSC Jan. 6, 2025).

page 10. The estimated capital cost of the project is still listed as \$125.8 million. Explain why the estimated capital cost remained constant given the delay in the project.

6. Refer to Duke Kentucky's response to Sierra Club's First Request for Information, Item 9. Duke Kentucky claimed the East Bend facility operated at a 5-year capacity factor of 61 percent. This is significantly greater than the 49.45 percent 5-year average capacity factor provided under the Duke Kentucky's response to Commission Staff's First Request for Information, Item 15 (e), Attachment 2 in Case No. 2024-00152.³ Does the reduced capacity factor of 49.45 lower the cost savings as associated with the elimination of the MEL reagent. If so, provide updated cost savings.

7. Refer to the Rebuttal Testimony of the Sierra Club witness Ranajit Sahu, page 4.⁴ The Sierra Club witness indicates that the 2024 EPA MATS regulations may not be applicable to the East Bend facility. Provide Duke Kentucky's assessment of the referenced EPA MATS ruling.

8. Refer to the Direct Testimony of Nathan Gagnon (Gagnon Direct Testimony), page 8, lines 9-17. Explain the assumption that the duration of a long-term lime supply agreement may not provide a seamless transition to a Combined Cycle generator for East Bend.

9. Refer to the Gagnon Direct Testimony, page 9, lines 11-14. If the Limestone Conversion project were not to happen, explain the impact to the Integrated Resource Plan.

³ Case No. 2024-00152, (filed Sept. 6, 2024), Response to Commission Staff's First Request for Information), Item 15 (e), Attachment 2.

⁴ Case No. 2024-00152, (filed Dec. 6, 2024), Sierra Club's Redacted Rebuttal Testimony of Ranajit Sahu at 4.

10. Refer to the Gagnon Direct Testimony, page 10, lines 13-18.
 - a. Provide the impact to ratepayers if the Limestone Conversion project is approved.
 - b. Provide the impact to ratepayers if the Limestone Conversion project is denied.

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DATED MAR 12 2025

cc: Parties of Record

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