

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2025 INTEGRATED RESOURCE)	CASE NO.
PLAN OF EAST KENTUCKY POWER)	2025-00087
COOPERATIVE, INC.)	

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION
TO EAST KENTUCKY POWER COOPERATIVE, INC.

East Kentucky Power Cooperative, Inc. (EKPC), pursuant to 807 KAR 5:001, shall file with the Commission an electronic version of the following information. The information requested is due on July 11, 2025. The Commission directs EKPC 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

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).

response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

EKPC shall make timely amendment to any prior response if EKPC 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 EKPC fails or refuses to furnish all or part of the requested information, EKPC 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, EKPC 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 Integrated Resource Plan (IRP), page 72. The following set of questions are related to the hypothetical addition of a center load of approximately 2.2 GW onto EKPC's system as indicated in EKPC's request to PJM for transmission studies (Regional Transmission Expansion Plan process) and reflected in the PJM Transmission Expansion Advisory Committee (TEAC) report. In performing the requested analysis, EKPC should assume that the load will locate at or near the Spurlock generation station

and come online as indicated in the PJM transmission study request. The starting point of the requested analysis should be EKPC's anticipated transmission and generation upgrades and additions as contemplated in this IRP filing.

a. Perform a production cost modeling analysis to estimate how best to reasonably serve the hypothetical 2.2 GW load. The assumptions for the analysis should be consistent with those used in the IRP to arrive at the preferred generation portfolio, the only change being the 2.2 GW load addition with a very high load factor. The following load ramp schedule should be assumed for the hypothetical load:

- 110 MW by 12/2026
- 530 MW by 2/2028
- 850 MW by 8/2028
- 2200 MW by 1/2031

b. Perform the necessary transmission upgrade analyses necessary to accommodate the 2.2 GW data center load. In addition to modeling the addition of the load, EKPC should assume that the data center load is extremely sensitive to any variation in power flows and would revert to backup generation, possibly with virtually no notice. Therefore, EKPC should model the consequences of a sudden exit of the load from the transmission system. EKPC should model N-1, N-2 and if possible, N-3 contingencies as a worst-case scenario.

c. In the event of a sudden exit of 2.2 GW from EKPC's system, explain how EKPC would insulate and protect the rest of its system (and possibly neighboring interconnected systems) from damage. In the response, identify any equipment necessary, as well as any actions taken by EKPC, either independently or in coordination

with PJM transmission operators, to insulate the generation and transmission system from damage.



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DATED APR 23 2025

cc: Parties of Record

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