

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2022 INTEGRATED RESOURCE)	CASE NO.
PLAN OF EAST KENTUCKY POWER)	2022-00098
COOPERATIVE, INC.)	

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

East Kentucky Power Cooperative, Inc. (EKPC), pursuant to 807 KAR 5:001, is to file with the Commission an electronic version of the following information. The information requested is due on September 20, 2022. 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 when made or, though correct when made, is now incorrect 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 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 2022 Integrated Resource Plan (IRP), page 20, Table 1-1, and page 44.

a. Table 1-1 on page 20 of the IRP shows that forecast Demand Side Management (DSM) and Energy Efficiency (EE) programs/initiatives have a greater impact on summer peaks than winter. Given EKPC's current capacity and energy production capability, explain whether EKPC agrees that its DSM and EE programs/initiatives increase the revenue-earning potential of selling energy, capacity

and or ancillary services in PJM markets, especially during summer months. If EKPC disagrees, explain why.

b. Explain whether EKPC agrees that it has an incentive to maximize cost effective DSM and EE programs/initiatives that have a greater impact on summer peaks, and why. If EKPC disagrees, explain why.

c. To the extent that DSM and EE programs/initiatives increase the revenue earning potential of PJM market participation, explain whether EKPC agrees that the revenue from the sale of incremental energy, capacity or ancillary services resulting from DSM and EE programs/initiatives should be included in the DSM and EE cost effectiveness tests.

2. Refer to the IRP, page 65, Table 3-2. Refer also to the IRP, Technical Appendix Volume 1, 2021–2035 Load Forecast, page 4, Table “Coincident Peak Demands and Total Requirements Historical and Projected.” Explain the differences between the forecasted summer and winter peak demands in each table, and state which table provides the most accurate forecast and why.

3. Refer to the IRP, page 66, Table 3-3. Refer also to the IRP, Technical Appendix Volume 1, 2021–2035 Load Forecast, page 6, Table “Purchased Power and Total Requirements.” Explain the differences in forecast energy and demand response impacts in each table, and state which table provides the most accurate forecast and why.

4. Refer to the IRP, page 67, Table 3-4. Refer also to the IRP, Technical Appendix Volume 1, 2021–2035 Load Forecast, page 5, Table “Energy Sales by Class.” Explain the differences in sales forecasts in the corresponding columns of each table, and state which table provides the most accurate forecast and why.

5. Refer to the IRP, page 68, Table 3-4. Refer also to the IRP, Technical Appendix Volume 1, 2021–2035 Load Forecast, page 6, Table “Purchased Power and Total Requirements.”

a. Explain the differences in distribution and transmission losses, including why they are calculated differently.

b. Explain why Purchased Power in Table “Purchased Power and Total Requirements” and Sales To Member-Owners in Table 3-4 are the same in historical years but different in forecasted years, including specifically an explanation of any difference in how the information in the columns is calculated.

c. Explain the differences between Net Total Requirements in Table 3-4 and Table “Purchased Power and Total Requirements,” including specifically an explanation of any difference in how the information in the columns is calculated.

6. Refer to EKPC’s response to Commission Staff’s First Request for Information (Staff’s First Request), Item 1. Explain negative congestion in the context of the response, how negative congestion was affecting EKPC, and how EKPC’s strategy is handling the issue.

7. Refer to EKPC’s response to Staff’s First Request, Item 2b. Explain whether EKPC has calculated its avoided cost by the method the Commission laid out in recent net metering cases, such as the Commission’s May 14, 2021 Order in Case

Number 2020-00174,² and if not, provide an estimate of EKPC's avoided costs using that methodology.

8. Refer to EKPC's response to Staff's First Request, Item 11b. Explain whether EKPC means that everything else being equal, the model provides more accurate demand estimates with the HDD-30 variable in the equation even with the collinearity, and if so, explain how EKPC knows the estimates are more accurate.

9. Refer to the IRP, page 83 stating that the forecasted seasonal peak demands are calculated by applying load factors to total purchased power. Refer also to EKPC's Response to Staff's First Request, Item 12 stating that the independent forecasts for peaks and energy are used to calculate load factors. Provide a detailed, step by step explanation of how peak demands and load factors are determined, including specifically why the process is not circular in nature.

10. Refer to EKPC's response to Staff's First Request, Item 13. Refer also to the IRP, pages 84-89, Tables 3-13, 3-14, 3-15, 3-16, 3-17, and 3-18. Refer also to the IRP, Technical Appendix Volume 1, 2021–2035 Load Forecast, pages 33-38. Confirm that Tables 3-13, 3-14, 3-15, 3-16, 3-17, and 3-18 on pages 84-89 of the IRP contain the most up-to-date data and forecasts.

11. Refer to EKPC's response to Staff's First Request, Item 18. For the Spurlock units, explain why the forecast fixed O&M expenses for 2022 and beyond increase three to four times more than the 2021 actual expenses.

² See 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).

12. Refer to EKPC's response to Staff's First Request, Item 27.

a. Provide a list of each of the specific EKPC Sustainability Goals that were applied to the top plans selected by the Resource Optimizer to provide the final plan.

b. Explain what "top plan" and "top plans," as used in response to Staff's First Request, Item 27(b), refers to.

c. Explain whether EKPC's Sustainability Goals were applied to each of the ten lowest cost plans selected by the Resource Optimizer. If so, explain how each of the resulting plans compares to the final plan and to each of the lowest cost plans.

d. Explain in detail the process for applying the Sustainability Goals to the top plan or plans to achieve the final plan e.g. were there meetings where the IRP team discussed and determined how to apply the Sustainability Goals, was a single person responsible for applying to the Sustainability Goals to the top plans, did the sustainability goals have to be met or did they simply inform the determination of the final plan, etc.

e. Explain specifically and in detail how each of the Sustainability Goals was applied to achieve the optimal / final plan, including specifically how application of each of the Sustainability Goals affected the top plan to achieve the final plan.

13. Refer to EKPC's response to Staff's First Request, Item 27c.

a. Explain whether "Best 1" represents a net present value (NPV) revenue gain over expenses, while "Best 10" represents a NPV revenue shortfall over expenses. If not, explain what "System profit" means in this context.

b. Provide the "System profit" of the optimal/final plan as compared to the ten lowest cost plans.

14. Refer to EKPC's response to Staff's First Request, Item 29b.

a. Confirm that prior to joining PJM, EKPC had an obligation to have sufficient capacity to serve its system peak demand and planned its system as such.

b. Explain how joining PJM with a summer peaking capacity obligation relieved EKPC from continuing to have sufficient capacity to serve its system peak demand.

c. Using EKPC's logic, explain whether it is fair to say that EKPC could allow its built and owned system capacity to decline over time to the level necessary to satisfy PJM's capacity requirements and could then satisfy any additional energy needs through market purchases.

15. Refer to EKPC's response to Staff's First Request, Item 29c. State whether the forecast energy purchase prices used by the Resource Optimizer for IRP planning purposes were renewable prices or fossil-based purchase prices, and explain the response.

16. Refer to EKPC's response to Staff's First Request, Item 30. Refer also to the IRP, page, 170, Table 8-6, and page 171, Table 8-7.

a. Provide an update to Table 8-7 showing EKPC's forecast energy requirements, and explain how the energy forecasts correspond to the energy purchases in Table 8-7.

b. For Table 8-7, explain whether the Energy Additions and Peaking/Intermediate Capacity Additions are in terms of nameplate capacity or the capacity attributed to the generation resource by PJM.

c. For Table 8-7, explain whether the incremental additions to Total Capacity are in terms of nameplate capacity or the capacity attributed to the generation resource by PJM.

d. “Total Capacity” in Table 8-7 in both summer and winter increase throughout the forecast period, but capacity additions in Table 8-7 are only shown in 2032 (225 MW for winter and 170 MW for summer). Explain why the incremental increases in “Total Capacity” do not have corresponding capacity additions in either the base load or peaking/intermediate columns.

e. Explain what the incremental additions to Total Capacity in Table 8-7 are and where they are represented in Table 8-7.

f. Explain how Total Capacity in Table 8-7 exceeds Existing Resources in Table 8-6 for many of the years and seasons, and reconcile these differences. If necessary, provide updates to Tables 8-6 and 8-7.

g. Provide an explanation of and show the calculation of the Total Capacity values in Table 8-7 from the nameplate capacity of the resources used to calculate the Total Capacity values.

17. Refer to EKPC’s response to Staff’s First Request, Item 38. Refer also to EKPC’s Response to Staff’s First Request for Information, Item 29 in Case No. 2019-00096, regarding EKPC’s 2019 IRP, in which EKPC stated that “Low-income programs historically have not had TRCs above 1.”³

³ Case No. 2019-00096, *Electronic 2019 Integrated Resource Plan of East Kentucky Power Cooperative, Inc.* (filed Mar. 16, 2020), EKPC’s Response to Staff’s First Request for Information, Item 29.

a. Reconcile the discrepancy in the responses regarding low-income programs historically having a TRC above or below 1.0.

b. Explain how EKPC could improve the cost effectiveness of the Residential Energy Audit Program.

18. Refer to EKPC's response to Staff's First Request, Item 39. Refer also to the IRP, Technical Appendix Volume 2, Demand Side Management Analysis, page DSM-17, Table DSM-4.

a. For Item 39, explain why there is no avoided winter generation capacity costs utilized in the evaluation of DSM programs and provide EKPC's winter avoided capacity costs.

b. Since EKPC is a winter-peaking utility, explain what the winter peak demand impact is in 2036 for Table DSM-4.

19. Refer to EKPC's response to Staff's First Request, Item 40b.

a. Explain the potential incentive or special rate that would be provided to customers for using this program.

b. State which EKPC owner-members would benefit most from this program and explain why.

c. State which EKPC owner-members would benefit least from this program and explain why.

20. Refer to EKPC's response to Staff's First Request, Item 40c. Refer also to the IRP, Technical Appendix Volume 2, Demand Side Management Analysis, Exhibit DSM-1, 2021 Potential Study, pages 35-36. Explain why there is no plan to incorporate the Critical Peak Pricing with Enabling Tech into EKPC's DSM programs.

21. Refer to EKPC's response to Staff's First Request, Item 41b. Given that the IRP is a long-range planning study, explain why the commercial and industrial programs listed in Appendix C of the GDS Associates, Inc. study were not evaluated for the IRP DSM portfolio.



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

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cc: Parties of Record

*L. Allyson Honaker
Honaker Law Office, PLLC
1795 Alysheba Way
Suite 6202
Lexington, KENTUCKY 40509

*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

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

*Chris Adams
East Kentucky Power Cooperative, Inc.
P. O. Box 707
Winchester, KY 40392-0707

*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

*Honorable Michael L Kurtz
Attorney at Law
Boehm, Kurtz & Lowry
36 East Seventh Street
Suite 1510
Cincinnati, OHIO 45202

*Jody Kyler Cohn
Boehm, Kurtz & Lowry
36 East Seventh Street
Suite 1510
Cincinnati, OHIO 45202

*East Kentucky Power Cooperative, Inc.
4775 Lexington Road
P. O. Box 707
Winchester, KY 40392-0707

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