COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR 1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A NEW GENERATION RESOURCE; 2) A SITE COMPATIBLITY CERTIFICATE; AND 3) OTHER GENERAL RELIEF	)))))))	**CASE NO. 2024-00310**

RESPONSES TO SIERRA CLUB'S FIRST REQUEST INFORMATION REQUEST

TO EAST KENTUCKY POWER COOPERATIVE, INC.

DATED OCTOBER 28, 2024

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR 1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A NEW GENERATION RESOURCE; 2) A SITE COMPATIBLITY CERTIFICATE; AND 3 OTHER GENERAL RELIEF	)))))))	**CASE NO. 2024-00310**

CERTIFICATE

STATE OF KENTUCKY)

COUNTY OF CLARK)

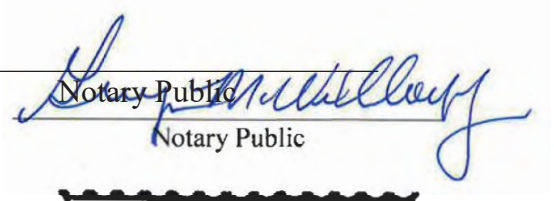
Darrin Adams, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Sierra Club's First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information, and belief, formed after reasonable inquiry.

Darrin Adams

_____

Subscribed and sworn before me on this 6th day of December, 2024.

_____
Notary Public



GWYN M. WILLOUGHBY
Notary Public
Commonwealth of Kentucky
Commission Number KYNP38003
My Commission Expires Nov 30, 2025

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR 1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A NEW GENERATION RESOURCE; 2) A SITE COMPATIBLITY CERTIFICATE; AND 3 OTHER GENERAL RELIEF	)))))))	**CASE NO. 2024-00310**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Greg Cecil, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Sierra Club's First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information, and belief, formed after reasonable inquiry.

Greg Cecil

_____

Subscribed and sworn before me on this 6th day of December, 2024.

_____
Notary Public

Notary Public

GWYN M. WILLOUGHBY
Notary Public
Commonwealth of Kentucky
Commission Number KYNP38003
My Commission Expires Nov 30, 2025

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR 1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A NEW GENERATION RESOURCE; 2) A SITE COMPATIBLITY CERTIFICATE; AND 3 OTHER GENERAL RELIEF	))))))))	**CASE NO. 2024-00310**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

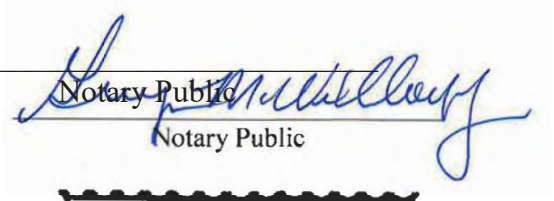
Scott Drake, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Sierra Club's First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information, and belief, formed after reasonable inquiry.

Scott Drake

_____

Subscribed and sworn before me on this 6th day of December, 2024.

_____
Notary Public



GWYN M. WILLOUGHBY
Notary Public
Commonwealth of Kentucky
Commission Number KYNP38003
My Commission Expires Nov 30, 2025

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR 1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A NEW GENERATION RESOURCE; 2) A SITE COMPATIBLITY CERTIFICATE; AND 3 OTHER GENERAL RELIEF	)))))))	**CASE NO. 2024-00310**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Jerry Purvis, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Sierra Club's First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information, and belief, formed after reasonable inquiry.

Jerry Purvis

_____

Subscribed and sworn before me on this 6th day of December, 2024.

_____
Notary Public

Notary Public

GWYN M. WILLOUGHBY
Notary Public
Commonwealth of Kentucky
Commission Number KYNP38003
My Commission Expires Nov 30, 2025

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR 1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A NEW GENERATION RESOURCE; 2) A SITE COMPATIBLITY CERTIFICATE; AND 3 OTHER GENERAL RELIEF	)))))))	**CASE NO. 2024-00310**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Sierra Club's First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein are true and accurate to the best of her knowledge, information, and belief, formed after reasonable inquiry.

Julia J. Tucker

_____

Subscribed and sworn before me on this 6th day of December, 2024.

_____
Notary Public
Notary Public

GWYN M. WILLOUGHBY
Notary Public
Commonwealth of Kentucky
Commission Number KYNP38003
My Commission Expires Nov 30, 2025

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR 1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A NEW GENERATION RESOURCE; 2) A SITE COMPATIBLITY CERTIFICATE; AND 3 OTHER GENERAL RELIEF	))))))))	**CASE NO. 2024-00310**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Brad Young, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Sierra Club's First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information, and belief, formed after reasonable inquiry.

Brad Young

_____

Subscribed and sworn before me on this 6th day of December, 2024.

_____
Notary Public

Notary Public

GWYN M. WILLOUGHBY
Notary Public
Commonwealth of Kentucky
Commission Number KYNP38003
My Commission Expires Nov 30, 2025

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUEST FOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 1
RESPONSIBLE PARTY: Greg Cecil

Request 1. Provide all EKPC responses to data requests from all parties in this proceeding, including confidential responses. Continue to provide any such documentation, until this docket is closed, on a regular basis.

Response 1. All responses to requests for information have been filed in the public record. EKPC will provide confidential information to parties who are entitled to access such information if and when the appropriate confidentiality nondisclosure agreements have been executed.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUEST FOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 2
RESPONSIBLE PARTY: Greg Cecil

Request 2. To the extent not already provided, please provide any redacted documents included in the Cooperative's initial filing and direct testimonies in non-redacted, electronic versions (machine readable, unprotected, with formulas intact).

Response 2. All documents have been provided in the public record of this case.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUEST FOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 3
RESPONSIBLE PARTY: Julia J. Tucker

Request 3. Please provide supporting workpapers and modeling files, including (not limited to) all input files, output files, and pre- or post-processing of said inputs and outputs for all portfolios and scenarios for all years modeled, in electronic spreadsheet format with formulas intact, supporting each of the statements, testimonies, exhibits, and attachments included in the Cooperative's initial filing and direct testimonies.

Response 3. Please see response Commission Staff's First Request for Information (Staff's First Request) Item 1for supporting workpapers and modeling files related to EKPC's 2024 Long Term Load Forecast. Refer to EKPC's response to Staff's First Request, Item 6 for a discussion on the EKPC Capacity Expansion Plan.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 4
RESPONSIBLE PARTY: Objection - Legal

Request 4. For the J.S. Cooper Station and the Hugh L. Spurlock Station, please provide the following historical annual data, from 2018 to present:

a. Fixed O&M cost

b. Non-fuel variable O&M cost

c. Fuel costs

d. Capital costs

e. Heat rate

f. Generation

g. Capacity rating

h. Capacity factor

i. Forced outage rate

j. Planned outage rate

k. Energy revenues

l. Capacity revenues

m. Ancillary services revenues. Unforced capacity ("UCAP")

Response 4. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. The historical data for the Cooper Station and the Spurlock Station are not relevant to this proceeding. Obtaining this information would be time consuming and unduly burdensome and is not relevant to the proceeding.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 5
RESPONSIBLE PARTY: **Objection: Legal**

Request 5. For J.S. Cooper Station and the Hugh L. Spurlock Station, please provide the following projected annual data:

a. Fixed O&M cost

b. Non-fuel variable O&M cost

c. Fuel costs

d. Capital costs

e. Heat rate

f. Generation

g. Capacity rating

h. Capacity factor

i. Forced outage rate

j. Planned outage rate

k. Energy revenues

l. Capacity revenues

m. Ancillary services revenues

n. Unforced capacity ("UCAP")

Response 5. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. The historical data for the Cooper Station and the Spurlock Station are not relevant. Gathering this information would be time consuming and unduly burdensome and it is not relevant to this proceeding.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 6
RESPONSIBLE PARTY: Julia J. Tucker

Request 6. Please refer to the Direct Testimony of Witness Tucker at page 8, lines 6 – 16.

a. Please provide all supporting workbooks, with formulas and links intact, used to develop the 2024 Long Term Load forecast ("LTLF").

b. Please provide the monthly and annual energy and demand for the "load growth attributed to economic development" specific to each new customer over the forecast period.

c. Please provide the monthly and annual energy and demand for the electric vehicle penetration over the forecast period.

d. Please explain how the forecast for electric vehicle penetration was developed, including assumptions around charging and the hourly shape assigned.

e. Please explain how distributed generation was incorporated into the 2024 Long Term Load forecast.

i. If distributed generation was incorporated, please provide the supporting workbooks, with all formulas and links intact, used to develop the forecast.

Response 6.

a. Refer to EKPC's response to Staff's First Request for Information, Item 1(a).

b. Refer to EKPC''s response to Sierra Club's First Request for Information, Item 7.

c. See attachment *SC Attachment DR 6 – EV Peak and Energy Forecast.xlsx*.

d. Refer to EKPC's response to Mountain Association's First Request for Information, item 9. EV hourly load shapes are based on the U.S. Department of Energy's Alternative Fuels Data Center EVI-Pro Lite tool. Assumptions include a mix of home and workplace charging as well as 50% blend of immediate and delayed charging.

e. Distributed generation is not explicitly incorporated into the 2024 Long Term Load Forecast, however, it is embedded within the historical data and has a dampening effect on consumer usage throughout the forecast period.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUEST FOR INFORMATION
RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 7
RESPONSIBLE PARTY: Julia J. Tucker

Request 7. Please refer to the Direct Testimony of Witness Tucker at page 8, lines 6 – 16.

a. Please provide the supporting workbooks, with all formulas and links intact, used to develop the energy and peak demand assumptions modeled for each new large customer included in the forecast.

b. For each new customer included in the load forecast, please provide the peak demand, annual energy requirements, load factor, anticipated date the customer expects to receive service, the commercial activity of the customer (i.e. data center, cryptocurrency, or EV manufacturing), and whether the customer has entered into any agreements or contracts with the Cooperative or one its Member-Owner Cooperatives.

c. For each new customer that has executed an agreement indicating an intention to obtain service from the Cooperative or one its Member-Owner Cooperatives, please provide the date of the agreement.

i. If agreements have not been executed, please explain if any of the new customers are considering locating their facility outside of the Cooperative's service territory or in another state.

d. Please provide the level of peak demand for each potential new customer that has not been included in the load forecast for this CPCN Application.

e. Please explain if any of the new customers have commenced site construction activities.

f. Please explain if the Cooperative or one its Member-Owner Cooperatives have had any conversations with new customers about arrangements for curtailable load, standby on-site generation, participation in energy efficiency programs, or any other approaches to offset the capacity need of the new customers.

Response 7. a. In the short term, large commercial sales projections rely on input of the owner-members. Owner-members, having knowledge of their key accounts and the presence of industrial parks, project usage for existing large loads, and advise of new consumers or consumers that are leaving. Additional input from EKPC's Economic Development staff may also be included. In the long-term, energy projections use economic variables as model drivers. EKPC projects new large loads based on history and the economy of the service territory using regression analysis. Historical industrial growth is analyzed to distribute consumer projections among the 16 owner-members. Demand of 1.5 MW and 70 percent load factor is assumed for these new loads.

b. The owner-member cooperatives may still be in confidential negotiations for these consumers. Given the sensitive nature of these discussions, consumer-level details are not provided. Please see a summary in the table below. No agreements are available.

d. None.

e. Some new large consumers have commenced construction activities.

f. These details are available upon final negotiation of the contract.

Year	New Consumer Increased Demand MW (Cumulative)	New Consumer Increased Energy MWh (Cumulative)	Load Factor
2024	13	78,924	69.4%
2025	72	424,916	67.8%
2026	126	715,359	64.9%
2027	156	869,754	63.7%
2028	166	934,140	64.1%
2029	182	1,052,205	65.9%
2030	185	1,070,601	66.0%
2031	191	1,107,393	66.1%
2032	199	1,153,383	66.2%
2033	203	1,180,977	66.3%
2034	208	1,208,571	66.4%
2035	214	1,245,363	66.5%
2036	224	1,309,749	66.7%
2037	229	1,337,343	66.7%
2038	236	1,383,333	66.8%
2039	241	1,410,927	66.9%

To account for a consumer's ramp up the demand is the average projected for the year. Once fully operational, the demand represents the consumer's maximum load.

Energy is the total MWh per year, including the impact of ramp-up. For example, a consumer starting October 2024 will only have energy for Oct - Dec 2024 in 2024.

In early years new consumers are primarily named loads identified by owner members. In later years, new consumers are unnamed modeled load of 1.5 MW at 70% load factor, generally assumed to start in January of a given year.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUEST FOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 8
RESPONSIBLE PARTY: Julia J. Tucker

Request 8. Please refer to the Direct Testimony of Witness Tucker at page 9, lines 8-14, and page 10, lines 1-3.

a. Please provide the supporting workbooks, with all formulas and links intact, used to develop the impact of energy efficiency measures and programs to the load forecast.

b. Please provide the costs associated with the level of savings and peak impact shown in the table on pages 9-10.

c. On page 13 of Witness Tucker's Direct Testimony, it says, "This is consistent with actual events in Winter Storms Elliott and Gerri, which were multiple-day cold weather events, driving load saturation from residential consumption." Please explain if the energy efficiency measures and programs included in this projection are aimed at addressing the residential consumption observed during the event.

Response 8. a. The basis of the energy and demand savings are the deemed savings per measure. The modeling utilizing the energy and demand savings per measure is proprietary to

GDS Associates who performed the EKPC 2024 DSM Potential Study. Please reference Scott Drake's testimony in Commission Case No. 2024-00370 for the DSM Plan.[1]

b.

Year	Impacts on Energy Requirements (MWh)	Impacts on Winter Peak (MW)	Impacts on Summer Peak (MW)	Forecasted Expenditures ($M)
2025	-5,232	-7	-24	$2.449
2026	-18,177	-13	-29	$7.776
2027	-31,129	-19	-33	$8.095
2028	-44,127	-25	-37	$8.427
2029	-56,761	-31	-41	$8.769
2030	-69,792	-38	-45	$9.119
2031	-82,852	-44	-49	$9.478
2032	-96,103	-50	-54	$9.847
2033	-108,663	-56	-58	$10.225
2034	-121,091	-60	-56	$10.446
2035	-133,857	-66	-60	$10.841
2036	-147,802	-72	-64	$11.106
2037	-160,175	-78	-67	$11.377
2038	-173,082	-83	-71	$11.654
2039	-185,729	-89	-74	$11.938

c. Weatherizing the home is the most important energy efficiency activity to lower winter demand impacts over long duration extreme weather events Elliott and Gerri. In the new DSM plan, EKPC will be proposing incentivizing several new home weatherization measures and will be proposing increasing the incentive value of its Button-up Weatherization program. EKPC

[1] Case No. 2024-00370 refers to the electronic application filed by East Kentucky Power Cooperative, Inc. with the Kentucky Public Service Commission on November 25, 2024. The application seeks certificates of public convenience and necessity to construct new generation resources, a site compatibility certificate for the proposed construction, approval of demand-side management tariffs, and other general relief.

is also proposing an increase of the CARES low-income program incentive. Please reference Scott Drake's testimony in Commission Case No. 2024-00370 for the DSM Plan.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 9
RESPONSIBLE PARTY: Julia J. Tucker

Request 9. Please refer to the Direct Testimony of Tucker at page 13, stating, "The Reserve Margin of 7% for winter peak represents a significant change from EKPC's 2022 IRP capacity reserve methodology which assumed a 0% Reserve Margin."

a. Please explain how.

Response 9. Refer to the Direct Testimony of Julia J. Tucker within the Application and expanded upon in EKPC's response to Staff's First Request for Information, Item 6.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 10
RESPONSIBLE PARTY: Julia J. Tucker

Request 10. Please refer to the Direct Testimony of Tucker at page 13, stating, "The Reserve Margin of 7% for winter peak represents a significant change from EKPC's 2022 IRP capacity reserve methodology which assumed a 0% Reserve Margin," and at p. 16 describing the projects in EKPC's expansion plan.

a. Please identify any other significant changes from EKPC's 2022 IRP that support the projects in EKPC's current expansion plan that have been added or advanced to an earlier date than as presented in the 2022 IRP.

b. If EKPC has completed other documents updating its 2022 IRP that have not been filed with this application, please provide them.

c. Please explain whether EKPC believes that both the Liberty RICE Facility and the NGCC referenced on p. 16 are needed primarily to contribute towards meeting needs associated with the change in the reserve margin, or whether one or the other facility is primarily intended to address other system needs.

d. Please explain why EKPC is filing an expansion plan, but not an updated IRP, in support of the Liberty RICE Facility and the NGCC referenced on p. 16.

Response 10. a. Refer to the Direct Testimony of Julia J. Tucker within the Application and expanded upon in EKPC's response to Staff's First Request for Information, Item 6.

b. EKPC has provided all supporting workpapers and files in the Commission's public docket for this case.

c. Both facilities are needed to serve expected load growth needs. Refer to the Direct Testimony of Julia J. Tucker within the Application and expanded upon in EKPC's response to Staff's First Request for Information, Item 6.

d. EKPC intends to file an updated IRP on schedule in April of 2025. Refer to the Direct Testimony of Julia J. Tucker within the Application and expanded upon in EKPC's Response to Staff's First Request for Information, Item 6.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 11
RESPONSIBLE PARTY: **Response: Julia J. Tucker**
Objection: Legal

Request 11. Please refer to the Direct Testimony of Tucker at page 13, stating, "This is consistent with actual events in Winter Storms Elliott and Gerri, which were multiple-day cold weather events, driving load saturation from residential consumption."

a. Please provide documents, analyses, and workpapers sufficient to show the scope of service interruptions for EKPC and/or its Member-Owner Cooperatives during Winter Storm Elliott in December 2022 (including but not limited to interruptions on December 23, 2022), including:

i. The number and percentage of customers affected hourly by service interruptions

ii. The amount and percentage of resources offline each hour on December 23, 2022, and any other times during Winter Storm Elliott, broken down by generation category (coal, NGCC, SCCT, solar, wind, etc.)

b. Please provide documents sufficient to show the amount of power purchased hourly from the PJM Interconnection, and any and all other sources of power external to the Cooperatives from December 21, 2022, to December 28, 2022, broken down by:

i. Hour

ii. Seller (i.e., PJM, or other), and

iii. Generation power source (i.e., coal, NGCC, SCCT, solar, wind, hydro, or other).

c. Please provide documents, analyses, and workpapers sufficient to show the scope of service interruptions for EKPC and/or its Member-Owner Cooperatives during Winter Storm Gerri in January 2024 (including but not limited to interruptions between January 13, 2024 to January 18, 2024), including:

i. The number and percentage of customers affected hourly by service interruptions

ii. The amount and percentage of resources offline each hour between January 13, 2024 to January 18, 2024, and any other times during Winter Storm Gerri, broken down by generation category (coal, NGCC, SCCT, solar, wind, etc.)

d. Please provide documents sufficient to show the amount of power purchased hourly from the PJM Interconnection, and any and all other sources of power external to the Cooperatives from January 13, 2024 to January 18, 2024, broken down by:

i. Hour

ii. Seller (i.e., PJM, or other), and

iii. Generation power source (i.e., coal, NGCC, SCCT, solar, wind, hydro, or other).

Response 11. a. i. EKPC did not experience service interruptions during Winter Storm Elliott due to generation capacity constraints.

ii. Refer to Attachment 15 in Staff's First Request for Information in Case No. 2024-00137, *An Examination Of The Application Of The Fuel Adjustment Clause Of East Kentucky Power Cooperative, Inc. From November 1, 2022 Through April 30, 2023*.

b. (all subparts). Refer to Case No. 2024-00137, *An Examination Of The Application Of The Fuel Adjustment Clause Of East Kentucky Power Cooperative, Inc. From November 1, 2022 Through April 30, 2023*.

c. i. EKPC did not experience service interruptions during Winter Storm Gerri due to generation capacity constraints.

ii. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members forecasted load growth. The historical data for existing resources or purchases is not relevant.

d. **Objection**. EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members forecasted load growth. The historical data for existing resources or purchases is not relevant.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 12
RESPONSIBLE PARTY: Julia J. Tucker

Request 12. Please refer to the Direct Testimony of Tucker at page 13, stating, "This is consistent with actual events in Winter Storms Elliott and Gerri, which were multiple-day cold weather events, driving load saturation from residential consumption."

a. Please provide any reviews of Winter Storms Elliott and Gerri conducted by or on behalf of PJM.

b. Please identify the portions of the documents provided in response to (a) that support the need for an increased reserve margin.

Response 12. a. EKPC does not have reviews of Winter Storms Elliot or Gerri that were conducted by or on behalf of PJM. This information can be obtained from PJM.

b. See the response to Request 12 a.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 13
RESPONSIBLE PARTY: Scott Drake

Request 13. Please refer to the Direct Testimony of Witness Tucker, page 9, lines 8-9.

a. Please explain what analyses EKPC undertook to evaluate the energy efficiency measures and programs.

b. Please identify each DSM-EE program evaluated for implementation during the planning period and provide the data and analysis used to evaluate each DSM-EE program.

c. Please explain if the Cooperative has studied the demand response and energy efficiency potential among their residential, commercial, or industrial customers. If a study has been performed, please provide each study.

d. Please provide the most recent three full years of reported DSM-EE data (including program planned budgets and savings, actual spending and savings, and planned and actual participation) by program, in executable Excel format with all formulas intact.

e. Please provide any energy efficiency or demand response Annual Reports prepared over the most recent three full years.

f. Please explain if the Cooperative has considered winter demand response as a resource to address the variability in winter peak load.

g. Please provide all workpapers used in the analysis in fully functional Excel format with formulas intact, including measure inputs, estimated measure saturations and stock turnover assumptions, baseline assumptions, take-rates for retrofit measures, etc.

h. Please provide the historical incremental peak and MWh savings from energy efficiency and demand response over the last three years.

i. Please provide electronic workpapers for any DSM plans in fully functional Excel format with all formulas and links intact.

j. Please explain if the Cooperative offers any formal demand response program offerings to residential, commercial, or industrial customers.

i. If so, please provide the details of those offerings including incentive level paid, administrative fees, enrollment fees, notification times.

ii. If no formal demand response programs are offered, please explain the steps that the Cooperative has taken to explore the option of doing so.

Response 13. a. The first step in evaluating DSM programs is to have a DSM Technical Potential study performed. That study was performed in early to mid-2024 by GDS Associates. The DSM potential study analyzes cost-effectiveness of all possible DSM measures. For the study report refer to EKPC's response 2a of the Commission Staff's First Request for Information. The next step is to engage stakeholders and owner-member energy advisors and member services staff. The resulting cost-effectiveness results of the DSM potential study were shared with the EKPC Collaborative and owner-member expert staff. The Collaborative members are identified in

testimony provided by Scott Drake in Commission Case No. 2024-00370. The next step was to develop

DSM programs identified by the stakeholders and evaluate cost-effectiveness at individual DSM program level. The DSM Programs collectively constitute the DSM Plan.

b. Please reference Scott Drake's testimony in Commission Case No. 2024-00370 for the DSM Plan. The cost-effectiveness evaluations are performed by a consultant utilizing the DSMore software. The input data for each program and subprograms are detailed in the DSM Assumption Sheets. Please refer to EKPC's response 2b to Commission Staff's First Request for Information to find assumption sheets for all DSM programs evaluated. The data from the assumptions sheets is used to analyze cost-effectiveness via the DS More software. The cost-effectiveness results are detailed on the DSM Summary Results sheets. Please refer to EKPC's response 2b to Commission Staff's First Request for Information to find summary result sheets for all DSM programs evaluated.

c. Yes, a DSM potential study was performed for residential, commercial, and industrial members. Please reference EKPC's response 2a to the Commission Staff's First Request for Information.

d. Please reference the EKPC DSM annual reports: *SC DR 13d - 2021 EKPC DMS DLC Annual Report (FINAL).pdf*, *SC DR 13d - 2022 EKPC DSM DLC Annual Report.pdf*, and *SC DR 13d -2023 EKPC DMS DLC Annual Report (Final).pdf* for DSM program spend.

e. Please reference EKPC's Response 13d above.

f. EKPC's winter demand response program encompasses the ability to manage water heating during peak load periods. EKPC has direct load control switches on over 13,000 water heaters and manages those resources during peak load periods.

g. Please reference Scott Drake's testimony in Commission Case No. 2024-00370 for the DSM Plan.

h. Please reference EKPC's response 13d above for the DSM annual reports containing incremental energy and demand savings over the last three years.

i. The DSM plan will be submitted to the Commission in the near future.

j. Yes, EKPC and its owner-members offer the Direct Load Control program to residential and commercial members. The Direct Load Control Program is designed to reduce peak demands to provide load relief to the grid. The program's objective is to reduce peak demand and energy usage through installing thermostats or load control switches controlling air conditioners or heat pumps and load control devices managing water heaters. EKPC controls central air conditioners and heat pumps during extreme peak hours during the summer. Water heater control provides load relief in the winter and summer months. EKPC may participate in PJM markets with these devices. EKPC will not install new switches. All new enrollments will be Wi-Fi enabled thermostats provided by the end-use member under the "Bring Your Own Thermostat" (BYOT) option. Existing switches on air conditioners, heat pumps, and water heaters will continue to be controlled and incentives for those units paid for the technology's life. Peak demand reduction is accomplished by cycling equipment on and off according to a predetermined control strategy. Central air conditioning and heat pump units are cycled on and off, while water heater loads are curtailed. For BYOT units, the cycling is done by raising the thermostat setting for the control

event's duration. The typical control duration is four hours for switches and three hours for BYOT units. Participating customers receive an annual incentive. EKPC plans to continue to rely on a third-party administrator to provide enrollment, installation, service calls, and measurement & verification services. EKPC offers an incentive of $10 per year for each water heater under control, and $20 per year for each air conditioner or heat pump being controlled by a load control switch or a thermostat. BYOT participants are notified one (1) hour prior to control event starts.

EKPC also offers a Residential Electric Vehicle ("EV") Off-Peak Charging Program. This pilot program is designed to reduce the growth in peak demand resulting from the adoption of electric vehicles, thereby allowing EKPC to utilize its system more efficiently. EKPC provides a monthly incentive for all registered electric vehicles charging energy (kWh) that occurs during the off-peak hours (10PM to 6AM) while at home. The incentive is $0.02/kwh. The program includes energy reporting from electric vehicles or compatible electric vehicle supply equipment ("EVSE").[2]

[2] Case No. 2024-00370 refers to the electronic application filed by East Kentucky Power Cooperative, Inc. With the Kentucky Public Service Commission on November 25, 2024. The application seeks certificates of public convenience and necessity to construct new generation resources, a site compatibility certificate for the proposed construction, approval of demand-side management tariffs, and other general relief.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 14
RESPONSIBLE PARTY: Julia J. Tucker

Request 14. Please refer to the Direct Testimony of Witness Tucker, page 11, lines 11-20.

a. Please explain if EKPC has taken any steps to dampen the swing in demand observed in January 2024.

b. Please explain if EKPC has undertaken any analyses to understand the cause of the swing in demand.

c. Please provide all documents that support the responses to subparts a and b.

Response 14. a. EKPC has factored both Winter Storm Gerri and Winter Elliot into its revised LTLF.

b. The peak load observed during January 2024 does not represent a "swing" in demand, but rather the peak demand was caused by saturation of the load within the system due to the cold weather.

c. See EKPC's response to Staff's First Request for Information, Item 1.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 15
RESPONSIBLE PARTY: Julia J. Tucker

Request 15. Please refer to the Direct Testimony of Witness Tucker at page 13, lines 5-23.

a. Please explain how "EKPC quantified this risk by analyzing the 1 in 10 probability of extreme weather events and spreading that risk over the planning horizon, with an extreme weather event occurring every two years for a 48-hour period within each of those two-year periods."

b. Please provide the supporting workbooks, with all formulas and links intact, used to quantify risk and develop the 7% Reserve Margin.

c. Please explain how the Reserve Margin developed by EKPC differs from the PJM Forecast Pool Requirement.

Response 15. a-c. See EKPC response to Staff's First Request for Information, Item 3.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 16
RESPONSIBLE PARTY: Julia J. Tucker
Objection: Legal

Request 16. Please refer to the Direct Testimony of Witness Tucker at pages 15-16.

a. Please explain what modeling was conducted to develop the EKPC Capacity Expansion Plan.

i. If modeling was conducted, please provide the name of the modeling software used, whether the modeling used capacity expansion and production cost modeling, and the planning period.

ii. If modeling was conducted, please provide all modeling input and output files in machine readable format.

iii. If modeling was conducted, please provide the supporting workbooks, with all formulas and links intact, used to develop the Present Value of Revenue Requirements ("PVRR") for each modeling run.

iv. If modeling was conducted, please provide the first year in which new resources could be selected, annual build limits applied to each resource, and cumulative build limits applied to each resource.

v. If modeling was conducted, did modeling allow for economic additions of new resources, i.e., not limited to capacity need additions? If not, please explain why not.

vi. If modeling was conducted, was the 757 megawatts of renewable energy that EKPC announced as part of the New ERA program included? If it was included, please identify which modeling scenarios or portfolios included this resource?

vii. If modeling was conducted, was the new proposed 745 MW combined cycle gas plant that the Board recently announced included? If it was included, please identify which modeling scenarios or portfolios included this resource?

viii. If modeling was conducted, which scenarios or portfolios, if any, included the proposed Liberty Rice Station, the 757 megawatts of renewable energy that EKPC announced as part of the New ERA program, and the new proposed 745 MW combined cycle gas plant? If all of these proposed new generation sources were all included, please identify which modeling scenarios or portfolios included these resources.

b. Please explain how EKPC developed the "EKPC Capacity Expansion Plan".

c. Please explain all of the new generation sources that were included in the EKPC Capacity Expansion Plan?

i. Was the 757 megawatts of renewable energy that EKPC announced as part of the New ERA program included in the EKPC Capacity Expansion Plan? If not, why not?

ii. Was the new proposed 745 MW combined cycle gas plant that the Board recently announced included in the EKPC Capacity Expansion Plan? If not, why not?

d. Please explain if EKPC evaluated alternative resource portfolios to the EKPC Capacity Expansion Plan.

i. If yes, please provide each alternative resource portfolio evaluated.

ii. If no, please explain why not.

e. Please confirm if a natural gas conversion for the Cooper Station or Spurlock steam units to burn gas has been evaluated.

i. If there has been an evaluation, please provide the documents produced as part of that assessment including but not limited to heat rate curve changes, capital costs, O&M changes, and other cost or performance differences.

f. Please explain if full conversion to gas was modeled as part of determining the EKPC Capacity Expansion Plan.

i. If a gas conversion was modeled, please provide all modeling input assumptions.

g. Please explain if the modeling performed to develop the EKPC Capacity Expansion Plan evaluated the retirement of either the Cooper Station or Spurlock.

h. Please explain if different levels of energy efficiency and demand response were evaluated as part of the modeling performed to determine the EKPC Capacity Expansion Plan.

i. Please explain if a capacity factor limit was applied to the new CCGT included in EKPC's Capacity Expansion Plan.

Response 16. a. (all subparts) The EKPC Capacity Expansion Plan utilized the 2024 LTLF for peak load assumptions and compared them to existing capacity available to meet that load. Scenarios for new resource assumptions were not explicitly modeled, however, comparisons were evaluated prior to modeling as discussed in the Direct Testimony of Julia J. Tucker within the Application and expanded upon in EKPC's response to Staff's First Request for Information, Item 6.

b. Refer to EKPC's response to Staff's First Request for Information, Item 6.

c. Refer to Attachment JJT-3 in the Application, columns under the heading "CAPACITY ADDITIONS"

i. A portion of the 757 MWs of renewable energy announced by EKPC was included in the expansion plan provided in this case record. Of the 757 MWs, a 300 MW PPA with Safe Harbor Hydro was included as a firm energy resource in both the Summer and Winter capacity evaluations. A total of 136 MWs of solar capacity, the combination of the Fayette (40 MW) and Marion County (90 MW) solar facilities, was included for the Summer capacity evaluation at the PJM effective load carrying capability ("ELCC") adjusted value of 11 MW. These facilities were included in a separate CPCN Application filed in April 2024. The remaining MWs announced by EKPC in late October 2024 are not included in the expansion plan as this Application was filed in September 2024.

ii. Yes.

d. (all subparts). Yes, Refer to EKPC's response to Staff's First Request for Information, Item 6.

e. Yes.

i. EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. The projections for the Cooper Station and Spurlock Station are not relevant.

f. No, only natural gas co-firing was evaluated, not full conversion.

i. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. The projections for the Cooper Station and Spurlock Station are not relevant.

g. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. There is no request for early retirement.

h. Refer to the Direct Testimony of Julia J. Tucker, beginning on page 9 line 5 and ending on page 10 line 1 for the impact of the DSM/EE plans on the 2024 LTLF.

i. No capacity factor limit was applied.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 17
RESPONSIBLE PARTY: Julia J. Tucker

Request 17. Please provide the annual revenue requirements and present value revenue requirement (PVRR) for all portfolios and scenarios modeled.

Response 17. Refer to EKPC's response to Staff's First Request for Information, Item 6.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 18
RESPONSIBLE PARTY: Julia J. Tucker

Request 18. Please refer to the Direct Testimony of Witness Tucker, page 16, lines 5-7. Please provide the term length for the long-term purchased power agreements from hydro resources.

Response 18. See EKPC response to Staff's First Request for Information, Item 5.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 19
RESPONSIBLE PARTY: Julia J. Tucker

Request 19. Please refer to the Direct Testimony of Witness Tucker, Figures 2 and 3 on page 18.

a. Please provide the supporting workbooks, with all formulas and links intact, used to develop Figures 2 and 3.

b. On page 4, lines 21-22 of the Direct Testimony of Witness Mosier, it states that "EKPC also has 200 MWs of interruptible load and approximately 28 MWs in peak reduction mechanisms." Please explain how interruptible load was factored into the winter and summer capacity in Figure 2 and 3.

Response 19. a. See EKPC response to Sierra Club's first request for information, item 16.

b. Interruptible and peak reduction mechanisms are factored into the demand forecast assumptions; the expected peak demand value has been reduced by the amount of interruptible load. Interruptible and peak reduction mechanisms are not directly reflected as capacity resources within the capacity expansion plan. Modeling these resources in this manner provides maximum value to the resources because reserves are not carried for this amount of load.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 20
RESPONSIBLE PARTY: Julia J. Tucker
Objection: Legal

Request 20. Please refer to the Direct Testimony of Witness Tucker, page 19, lines 19-21.

a. Please provide a list of the solar projects that are pending Commission approval, the size in MWs of each project, and the online date for each project.

b. Please provide a list of all other solar projects that EKPC has in development and anticipates submitting to the Commission for approval, the size in MWs of each project, and the anticipated submission date and online date for each project.

Response 20. (a) Please reference Case No. 2024-00129, *Electronic Application Of East Kentucky Power Cooperative, Inc. For A Certificates Of Public Convenience And Necessity And Site Compatibility Certificates For The Construction Of A 96 Mw (Nominal) Solar Facility In Marion County, Kentucky And A 40 Mw (Nominal) Solar Facility In Fayette County, Kentucky And Approval Of Certain Assumptions Of Evidences Of Indebtedness Related To The Solar Facilities And Other Relief.*

(b) **Objection.** EKPC is evaluating multiple strategies to plan for the future generation needs of the cooperative. This information is highly confidential and EKPC is not required to disclose its business strategy before plans have been finalized.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 21
RESPONSIBLE PARTY: Brad Young

Request 21. Please refer to the Direct Testimony of Witness Young, page 11, lines 18-20. Please confirm if EKPC has paid a reservation fee for the proposed RICE units.

a. If EKPC has paid a reservation fee, please provide the amount of that fee and the date paid.

Response 21. EKPC issued a Limited Notice to Proceed to Wartsila in the amount of $15,387,376 to begin engineering and reserve the manufacturing slot in support of the project execution schedule. The payment to Wartsila was issued on October 21, 2024.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 22
RESPONSIBLE PARTY: Jerry Purvis

Request 22. Please explain how EKPC's modeling in support of this CPCN application incorporates the EPA's updated Clean Air Act Section 111 rules, if at all.

Response 22. After reviewing the Section 111 rule for existing coal-fueled fired units and the New Source Performance standards for Combustion Turbines, EKPC found that new reciprocating internal combustion engines (RICE) were exempt. No further environmental studies were conducted or required with regards to this new rule and RICE engines.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 23
RESPONSIBLE PARTY: Jerry Purvis

Request 23. Please explain how EKPC's modeling in support of this CPCN application incorporates the EPA's Good Neighbor Rule, if at all.

Response 23. Assuming the RICE engines are subject to the GNFIP Rule, should EPA and the state set aside new emission units' allocations, EKPC would be allocated ozone season NOx allowances to use during the ozone season. If EPA and State elect not to not set aside new unit allocations, then EKPC would have to use banked allowances or over comply from another fossil units in the fleet, which is consistent with the normal course of business. EKPC has banked allowances from overcompliance. Much uncertainty currently exists on how the final rule will ultimately be written given the complex actions taken by the EPA and courts with regard to the review of the GNFIP's legality. The rule as it stands today is administratively stayed pending court action. The schedule for such action has not been published and remains unknown at this time, which makes discussion of what actions may be necessary to comply in the future highly speculative.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 24
RESPONSIBLE PARTY: Jerry Purvis
Objection: Legal

Request 24. Has EKPC conducted any analysis of the potential costs and timing for such costs at Spurlock and/or Cooper to comply with EPA's Good Neighbor Plan? If so, please provide all documents reflecting such analyses. If not, why not?

Response 24. **Objection.** EKPC is not sure how this is germane to this case. EKPC submits compliance plans environmental surcharge amendments on an as needed basis to the PSC. EKPC objects to this line of questioning.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 25
RESPONSIBLE PARTY: Jerry Purvis

Request 25. Confirm that Kentucky is part of the Group 3 Trading Program under EPA's Update to the Cross-State Air Pollution Rule ("CSAPR"). If not confirmed, please explain which Trading Group to which Kentucky belongs.

Response 25. Originally in the March 15, 2023, EPA issued the final Good Neighbor Plan regulating 23 states to reduce and not transport ozone season NOx emissions across state boundaries. The Good Neighbor Plan was implemented and segregated into groups. Originally, Kentucky was in "Group 3" ozone season NOx control program for power plants. However, as of September 21, 2023, pursuant to the court orders from regional courts staying this rule, Kentucky was removed from the Group 3 ozone season NOx control program. Kentucky resides in EPA's Extended Group 2 NOx control program until further action is taken by the Courts and EPA as stated in Response 23.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 26
RESPONSIBLE PARTY: **Jerry Purvis**
Objection: Legal

Request 26. Please provide the total number of NOx credit purchases under CSAPR and cost by year for Cooper and Spurlock from 2017 to present.

Response 26. **Objection.** EKPC is not sure how this is germane to this case. EKPC submits compliance plans environmental surcharge amendments on an as needed basis to the PSC. EKPC objects to this line of questioning.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 27
RESPONSIBLE PARTY: Jerry Purvis

Request 27. Does EKPC have a forecast for NOx credit costs under EPA's Good Neighbor Plan? If yes, please provide all forecasts through 2046. If not, why?

Response 27: EKPC fuels and emissions routinely observes the market forecasts for NOx credit, SOx credits and associated costs. Since EKPC's coal-fired fleet is highly controlled and no purchases have been required or made since before 2008, given EPA's "Extended Group 2" and no decision on the GNFIP by the courts and an administrative stay by EPA, EKPC does not have basis at this time for any preparing further forecasts until it sees a final order by the courts and EPA rulemaking action.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 28
RESPONSIBLE PARTY: Jerry Purvis

Request 28. Please explain how EKPC's modeling in support of this CPCN application incorporates the EPA's updated Effluent Limitation Guidelines ("ELG") Rule, if at all.

Response 28. On May 9, 2024, EPA issued the finalized rule establishing new effluent limitations guidelines and standards for the steam electric power generating category. EKPC is underway studying, vetting the rule with its consultants to determine the risk, impacts and costs associated with its current coal-fueled fired units. When it is complete with its environmental technical and legal analyses, EKPC will notify and work with the Kentucky Division of Water, Kentucky Department of Environmental Protection and the Public Service Commission should further investments need to be made at our coal fired plant facilities.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 29
RESPONSIBLE PARTY: Jerry Purvis
Objection: Legal

Request 29. Has EKPC conducted any analysis of the compliance costs at Cooper and/or Spurlock to comply with EPA's ELG Rule?

a. If so, please provide all documents reflecting such analyses. If not, why not?

b. Identify the total cost of the projects the Cooperative intends to undertake or has undertaken at Cooper and/or Spurlock to comply with the ELG Rule.

c. State the year these costs have been or will be incurred.

d. Please identify and describe each itemized capital expenditure required to complete the ELG Rule compliance project.

e. Could any of those ELG Rule expenditures be avoided by making a commitment to cease burning coal under the ELG Rule's alternative closure provisions? If so, please identify each specific avoidable cost.

f. Please provide all evaluations of the technical or engineering compliance options for the ELG Rule for Cooper and Spurlock.

g. Produce all evaluation(s) that the Cooperative performed to determine that incurring any avoidable ELG Rule costs at East Bend is in customers' best interest (i.e., present value of retrofit versus retirement analyses). For any such evaluation, provide the following data:

i. All workpapers, with formulas intact.

ii. Provide a list of all capital expenditures associated with ELG Rule compliance included in each modeled scenario and provide the cost of each.

iii. PJM Energy price forecasts (with and without CO2 price).

iv. PJM Capacity price forecasts (with and without CO2 price).

v. CO2 price forecasts.

vi. Coal price ($/MMBtu).

vii. Gas price ($/MMBtu).

viii. Heat rate (Btu).

ix. Capital expenditures ($).

x. Variable Operation and Maintenance ($/MWh).

xi. Fixed Operation and Maintenance ($/MW).

xii. For each replacement resource available to the model, provide each of the following inputs for each resource at the highest level of granularity used in conducting the retrofit analysis:

1. Replacement resource options
2. Replacement resource size (MW)
3. Year replacement resource is available (year)
4. Cost of replacement resource option ($/MW)

5. Annual capacity factor

6. Year of transmission upgrade (if required)

7. Cost of transmission upgrade (if required).

Response 29. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. The costs associated with the EPA's ELG Rule at the Cooper Station and Spurlock Station are not relevant to this proceeding.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 30
RESPONSIBLE PARTY: Jerry Purvis

Request 30. Please explain how EKPC's modeling in support of this CPCN application incorporates the EPA's Coal Combustion Residual ("CCR") rule, if at all.

Response 30. The RICE units will not produce any CCR material. The CCR Rule is therefore inapplicable.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 31
RESPONSIBLE PARTY: Response: Jerry Purvis
Objection: Legal

Request 31. Has EKPC conducted any analysis of the compliance costs at Cooper and/or Spurlock to comply with EPA's CCR Rule?

a. If so, please provide all documents reflecting such analyses. If not, why not?

b. Identify the total cost of the projects the Cooperative intends to undertake or has undertaken at Cooper and/or Spurlock to comply with the CCR Rule.

c. State the year these costs have been or will be incurred.

d. Please identify and describe each itemized capital expenditure required to complete the CCR Rule compliance project.

Response 31. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. The costs associated with the EPA's CCR Rule at the Cooper Station and Spurlock Station are not relevant.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 32
RESPONSIBLE PARTY: **Response: Jerry Purvis**
Objection: Legal

Request 32. Please explain how EKPC's modeling in support of this CPCN application incorporates the EPA's updated Mercury Air Toxics Standards ("MATS") rule, if at all.

a. Has EKPC conducted any analysis of the potential costs and timing for such costs at Cooper and/or Spurlock to comply with EPA's MATS rule? If so, please provide all documents reflecting such analyses. If not, why not?

Response 32. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. The costs associated with the EPA's Mercury Air Toxics Standard at the Cooper Station and the Spurlock Station are not relevant.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 33
RESPONSIBLE PARTY: Jerry Purvis

Request 33. Please explain how EKPC's modeling in support of this CPCN application incorporates possible Regional Haze compliance costs, if at all.

a. Has EKPC conducted any analysis of the potential compliance costs at East Bend to comply with EPA's Regional Haze Rule for the second planning period, 40 C.F.R. § 51.308? If so, please provide all documents reflecting such analyses. If not, why not?

Response 33. East Bend is not a facility owned or operated by EKPC.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 34
RESPONSIBLE PARTY: Julia J. Tucker

Request 34. Please provide a load and resources table from now through 2034, or the furthest year the Company has available, showing the Company's projected peak demand and firm capacity available by year. List firm capacity by resource/fuel type. Include the Company's reserve margin in the table.

Response 34. Refer to Attachment JJT-3, the EKPC Capacity Expansion Plan, as filed in the Application.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 35
RESPONSIBLE PARTY: Julia J. Tucker

Request 35. Please provide a narrative explanation of how the Company calculates its available firm capacity for purposes of system planning. Does the Company include an estimate of firm capacity for variable renewable energy or storage resources?

Response 35. EKPC considers resources as firm capacity if the fuel source is reasonably assured and the resources are anticipated, barring any mechanism malfunction, to be available to serve EKPC's forecasted peak load. Renewable resources, particularly solar, are not expected to be available during EKPC's winter peak load periods of early morning or late evening, when the sun is not shining. Therefore, solar resources by themselves are not firm capacity resources. EKPC did attribute capacity to solar resources for the summer peak period adjusted for PJM's published Effective Load Carrying Capability ("ELCC").

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 36
RESPONSIBLE PARTY: Julia J. Tucker

Request 36. Does the Company calculate Capacity Contribution, Effective Load Carrying Capacity, or another metric of firm capacity for its generators for planning purposes? Please provide that value for the Company's existing generators and any new generators included in this rate case.

Response 36. EKPC calculated winter capacity based on the resource's installed, or nameplate, capacity. EKPC calculated its summer capacity based on the resources ELCC-adjusted capacity as EKPC is a member of PJM and a participant in the PJM capacity auction. Refer to Attachment JJ-3, the EKPC Capacity Expansion Plan, as filed in the Application.

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00310
FIRST REQUESTFOR INFORMATION RESPONSE

SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 37
RESPONSIBLE PARTY: Julia J. Tucker

Request 37. Please provide a narrative explanation of how the Company ensures that it will have enough capacity to meet demand in the future while maintaining a cost-effective system for customers. Include answers to the following:

a. How frequently does the Company assess its resource adequacy?

b. How far into the future does the Company plan for resource adequacy?

c. What standard does the Company use? For example, is it a 1 day in 10 years standard or a different metric?

d. Does the Company use a planning reserve margin when making resource decisions? If so, please provide the margin the Company currently uses and a narrative explanation of how that PRM was determined to be appropriate for planning purposes.

e. Please identify the interconnections with neighboring systems identified in its resource adequacy analysis, the transfer capability (both directions) at each point, and explain any simplifications.

f. Are any upgrades to interconnections with neighboring systems included in EKPC's plans? If so, please provide supporting documentation.

Response 37. a-d. Refer to the Direct Testimony of Julia J. Tucker, as filed in the Application.

e. EKPC does not identify interconnection requirements with neighboring systems. PJM, through its generation interconnection process, identifies any transfer capability constraints that may be caused by the interconnecting generator.

f. EKPC is currently coordinating with LG&E/KU to establish a new 69 kV free-flowing interconnection, and with AEP to establish a new 138 kV free-flowing interconnection. These interconnections are being established to provide local reliability improvements in their respective areas of the system. Additionally, two upgrades of existing free-flowing interconnections are currently in EKPC's future work plans. These upgrades have been identified to support local reliability in those respective areas. Table 37-1 lists information regarding the planned new interconnections and the upgrades to existing interconnections:

Free-Flowing Interconnection Facility	Interconnecting Utility	Project Type (New Construction or Upgrade)	Projected In-Service Date
Coburg-Campbellsville 69 kV	LG&E/KU	New Construction	June 2027
Jenny Wiley-Dewey Dam 138 kV	AEP	New Construction	December 2030
Duncannon Lane-KU Fawkes 69 kV	LG&E/KU	Upgrade	December 2024
McCreary County-KU Wofford 69 kV	LG&E/KU	Upgrade	May 2028

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REQUEST 38
RESPONSIBLE PARTY: Julia J. Tucker

Request 38. What model or models does the Company use to assess resource adequacy?

Response 38. See EKPC response to Sierra Club's First Request for Information, Item 16.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 39
RESPONSIBLE PARTY: Julia J. Tucker

Request 39. When planning its resource portfolio, does the Company plan to use spot market purchases or short-term contracts to meet a portion of its capacity needs? Please explain why or why not.

Response 39. EKPC anticipates that it will own or contract for enough firm capacity to meet the forecasted peak load for the 2025 through 2039 planning horizon. EKPC does not expect to have enough firm capacity to meet the forecasted peak load plus reserve margin from 2025 through 2033, until the anticipated natural gas combined cycle is available. EKPC plans to use both short-term contracts, where economically viable, and spot market purchases to meet its expected energy needs created by difference between the forecasted peak load and forecasted peak load plus reserve margin through the winter season.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 40
RESPONSIBLE PARTY: Julia J. Tucker

Request 40. Does the Company have capacity contracts with third parties? If so, please list each contract, its capacity in MW, the fuel type of any associated generator, and the cost of the capacity in $/MW-year.

Response 40. Yes, EKPC currently contracts with the Southeastern Power Administration ("SEPA") on 170 MW of energy, capacity, and renewable energy credits ("RECs") generated by hydroelectric dams. There is a 100 MW system allocation generated by multiple run-of-river dams located on the Cumberland River system and a 70 MW dam on Laurel River Lake which is dispatchable. Rates are updated annually with a current contract rate of $2.22/kW-Month, or $26,664/MW-year, for capacity in effect from April 2024 through April 2025.The current energy rate is set at $14.551/MWh.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 41
RESPONSIBLE PARTY: Julia J. Tucker

Request 41. Please provide the Company's historical monthly peak (MW) and monthly energy demand (MWh) load data for the years 2019 through 2023.

Response 41.

EKPC Monthly Peak Demand (MW)

Month	2019	2020	2021	2022	2023
1	3,073	2,653	2,696	3,017	2,546
2	2,448	2,619	2,862	2,605	2,562
3	2,834	2,106	2,352	2,435	2,707
4	2,077	1,775	2,173	1,936	1,962
5	2,060	1,792	2,069	2,046	2,017
6	2,177	2,115	2,382	2,465	2,094
7	2,338	2,312	2,340	2,382	2,497
8	2,366	2,299	2,450	2,400	2,498
9	2,276	2,155	2,130	2,245	2,281
10	2,224	1,687	1,790	2,001	2,024
11	2,723	2,190	2,364	2,650	2,669
12	2,714	2,702	2,255	3,747	2,677

EKPC Monthly Energy (MWh)

Month	2019	2020	2021	2022	2023
1	1,388,910	1,239,991	1,408,681	1,494,082	1,285,994
2	1,090,147	1,201,908	1,346,077	1,207,101	1,083,917
3	1,138,321	1,021,158	1,057,505	1,089,982	1,137,219
4	866,397	851,231	940,873	959,256	956,708
5	949,858	903,591	932,847	976,871	996,662
6	989,798	1,007,931	1,032,060	1,105,767	1,041,661
7	1,202,434	1,196,863	1,166,253	1,228,761	1,253,097
8	1,163,576	1,129,763	1,199,126	1,193,660	1,217,254
9	1,090,798	971,932	985,562	1,002,178	1,016,956
10	929,693	908,639	945,809	956,339	1,002,509
11	1,144,263	1,013,130	1,113,294	1,108,771	1,164,867
12	1,186,508	1,348,320	1,055,370	1,377,464	1,308,486

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 42
RESPONSIBLE PARTY: Julia J. Tucker

Request 42. Please provide the Company's forecast monthly peak (in MW) and monthly energy demand (in MWh) from 2024 through 2034.

Response 42. Please see attachment *SC Attachment DR 42 – Forecast monthly peak and monthly energy.xlsx* which is being uploaded into the Commission's electronic filing system separately. Note that forecast details for 2024 are not included because it is based on a combination of actual and forecast data. EKPC experienced two peaks during the week of Winter Storm Gerri, January 17, 2024 at 3,754 MW and January 21, 2024 at 3,725 MW.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 43
RESPONSIBLE PARTY: Julia J. Tucker

Request 43. Please provide the Company's estimated total available firm capacity in 2024. Include workpapers demonstrating the calculation of firm capacity.

Response 43. Firm capacity in 2024 is the same as 2025, which has been shown in Attachment JJT-3, the EKPC Capacity Expansion Plan, as filed in the Application. Workpapers have been provided within the record of this case.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 44
RESPONSIBLE PARTY: Julia J. Tucker

Request 44. Does the Company produce a forecast of capacity prices? If so, produce such forecast.

Response 44. EKPC relies on the capacity forecast as produced by ACES (see table below). Capacity prices shown for delivery years 2016-2017 through 2025-2026 are actual clearing prices. Prices are forecasted beginning with the 2026-2027 delivery year.

Clearing Prices for EKPC ($/MW-Day)								
Delivery Year	BRA		1st IA		2nd IA		3rd IA	
(June1 - May 31)	Base	CP	Base	CP	Base	CP	Base	CP
2016-2017	$ 59.37		$ 60.00		$ 31.00	$ 134.00	$ 5.02	
2017-2018	$ 120.00	$ 151.50	$ 84.00		$ 26.50		$ 36.49	
2018-2019	$ 149.98	$ 164.77	$ 22.51	$ 27.15	$ 5.00	$ 50.00	$ 14.29	$ 34.99
2019-2020	$ 80.00	$ 100.00	$ 15.00	$ 51.33	$ 10.01	$ 32.87	$ 21.35	$ 28.35
2020-2021		$ 76.53		$ 42.90		$ 20.25		$ 10.00
2021-2022		$ 140.00		$ 23.00		$ 10.26		$ 20.55
2022-2023		$ 50.00						$ 19.00
2023-2024		$ 34.13						$ 37.53
2024-2025		$ 28.92						$ 58.00
2025-2026		$ 269.92						
2026-2027		$ 250.00						
2027-2028		$ 82.00						
2028-2029		$ 85.94						
2029-2030		$ 90.06						
2030-2031		$ 94.38						
2031-2032		$ 98.91						
2032-2033		$ 103.66						
2033-2034		$ 108.64						
2034-2035		$ 113.85						
2035-2036		$ 119.32						
2036-2037		$ 125.04						
2037-2038		$ 131.05						
2038-2039		$ 137.34						
2039-2040		$ 143.93						

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 45
RESPONSIBLE PARTY: Julia J. Tucker

Request 45. Please provide unredacted, in native format with all formulae intact, all analyses or assessments that study the value of continued operation (e.g., all retirement studies, unit condition assessments, cold reserve assessments, or deactivation assessments) conducted since 2015, for Cooper and Spurlock, including, but not limited to, all studies, presentations, reports, or other assessments conducted to determine how to comply with any existing, impending, or potential environmental regulation.

Response 45. EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. EKPC is not requesting to discontinue operations of Cooper Station or Spurlock Station so any studies or assessments on continued operation are not relevant.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 46
RESPONSIBLE PARTY: **Response: Julia J. Tucker**
Objection: Legal

Request 46. For each retirement study or other assessment provided in response to Sierra Club 1.41 above:

a. State which modeling software was used to conduct the analysis.

b. State the date that the analysis was performed.

c. State whether the units were modeled with an economic (market) or self-commitment (must run) status for each year of the analysis.

d. State the date of each forecast or projection used in the analysis.

e. State the regulation or rationale behind each retirement date(s) studied.

f. Provide all underlying workbooks with formulas intact that were used to develop model input assumptions.

g. Identify all transmission grid updates or changes that would be needed to allow for the change in status (e.g., retirement) of Cooper and/or Spurlock.

Response 46. **Objection.** EKPC's request in this case is for a CPCN to construct a new generation resource to supply the owner-members' forecasted load growth. EKPC is not requesting

to discontinue operations of Cooper Station or Spurlock Station so any studies or assessments on continued operation are not relevant.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 47
RESPONSIBLE PARTY: Darrin Adams

Request 47. Please refer to the Direct Testimony of Witness Adams, page 6, lines 4-5. Please provide a copy of the referenced power-flow analysis and any presentations, reports, or other documents summarizing the findings for planning or decision-making purposes.

Response 47. The attached Microsoft Excel files provide the results of EKPC's N-1 and N-1-1 contingency power-flow analysis. The files are:

- *SC Attachment DR 47-1.xlsx* -- Output file from Siemens PSS/E power-flow analysis software based on N-1 (single contingency) outage simulations for 2032 Summer peak-load conditions with the Liberty RICE facility modeled (note that this bus is shown as bus number 342000 "5GAS 161" in the results). All branch flows above 95%, bus voltages below 92%, non-converging contingency events, and contingencies causing consequential load shed are included in the respective worksheets in this file.
- *SC Attachment DR 47-2.xlsx* -- Output file from PowerGEM's TARA power-flow analysis software based on N-1-1 (single contingency outage followed by another single contingency) outage simulations for 2032 Summer peak-load conditions with the Liberty RICE facility modeled (note that this bus is shown as bus number 342000 "5GAS 161" in

the results). All branch flows above 90% and bus voltages below 94% are included in the worksheets titled "BranchViol" and "VoltViol", respectively, in this file.

- *SC Attachment DR 47-3.xlsx* -- Output file from Siemens PSS/E power-flow analysis software based on N-1 (single contingency) outage simulations for 2032-33 Winter peak-load conditions with the Liberty RICE facility modeled (note that this bus is shown as bus number 342000 "5GAS 161" in the results). All branch flows above 95%, bus voltages below 92%, non-converging contingency events, and contingencies causing consequential load shed are included in the respective worksheets in this file.
- *SC Attachment DR 47-4.xlsx* -- Output file from PowerGEM's TARA power-flow analysis software based on N-1-1 (single contingency outage followed by another single contingency) outage simulations for 2032-33 Winter peak-load conditions with the Liberty RICE facility modeled (note that this bus is shown as bus number 342000 "5GAS 161" in the results). All branch flows above 90% and bus voltages below 94% are included in the worksheets titled "BranchViol" and "VoltViol", respectively, in this file.
- *SC Attachment DR 47-5.xlsx* -- Output file from Siemens PSS/E power-flow analysis software based on N-1 (single contingency) outage simulations for 2032 Summer peak-load conditions with the Liberty RICE facility modeled (note that this bus is shown as bus number 342000 "5GAS 161" in the results) plus all generation-interconnection projects currently in the PJM queue requesting connection to the EKPC system. All branch flows above 95%, bus voltages below 92%, non-converging contingency events, and contingencies causing consequential load shed are included in the respective worksheets in this file.

- *SC Attachment DR 47-6.xlsx* -- Output file from PowerGEM's TARA power-flow analysis software based on N-1-1 (single contingency outage followed by another single contingency) outage simulations for 2032-33 Winter peak-load conditions with the Liberty RICE facility modeled (note that this bus is shown as bus number 342000 "5GAS 161" in the results) plus all generation-interconnection projects currently in the PJM queue requesting connection to the EKPC system. All branch flows above 90% and bus voltages below 94% are included in the worksheets titled "BranchViol" and "VoltViol", respectively, in this file.

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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 48
RESPONSIBLE PARTY: Darrin Adams

Request 48. Please refer to the Direct Testimony of Witness Adams, page 8, lines 11-13.

a. Please confirm that the final list of required network upgrades will be determined in a facilities study performed by the transmission owner, in this case EKPC. If not confirmed, please explain.

b. Please confirm that other transmission owners may determine that their systems are affected by the interconnections and that those transmission owners may conduct affected system studies and determine that additional network upgrades are required.

c. If unanticipated network upgrades are identified and those upgrades have substantial cost, how will EKPC inform the Commission of those additional costs?

d. If unanticipated network upgrades are identified and those upgrades have substantial cost, how would EKPC reconsider the projects?

Response 48. a. This is correct to the extent that the network upgrades that are identified by EKPC in the facilities study that will be performed are

(1) addressing a facility connection requirement to connect to the EKPC system (such as a specific system protection requirement);

(2) addressing a PJM and/or EKPC criterion violation identified during the study process (such as identified thermal overloads of specific lines or transformers);

(3) addressing EKPC-owned facilities – EKPC does not identify network upgrades needed for facilities owned by other entities.

a. This is confirmed.

b. The Commission would be so informed through a filing for a separate CPCN for a major transmission project that is identified per existing regulatory requirements for such transmission projects – i.e., any new transmission line that is required of voltage at 100 kV or above and with a total length of one mile or more.

c. The information regarding required transmission network upgrades and associated costs will continue to be refined and considered holistically along with the other portions of the overall project to assess its continued prudence.

EAST KENTUCKY POWER COOPERATIVE, INC.
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SIERRA CLUB'S REQUEST DATED OCTOBER 28, 2024
REQUEST 49
RESPONSIBLE PARTY: Darrin Adams

Request 49. Please refer to the Direct Testimony of Witness Adams, page 10, lines 18 through page 11.

a. Please identify where the information referenced in Case No. 2022-00098 can be located (e.g., exhibits, page numbers) and provide any confidential filings.

b. Please provide a history of each instance in which the transmission system in the referenced area became stressed during high-load periods, state whether the J.S. Cooper Station units were online, and include a description of any remedial actions taken.

c. Please provide any recent power-flow analyses or other studies evaluating potential solutions to the referenced reliability concern.

d. Please identify any projects proposed by third parties that have been identified as having potential impacts on the referenced reliability concern, and provide any presentations, reports, or other documents summarizing relevant findings for planning or decision-making purposes.

e. Please provide any studies that EKPC or PJM has conducted on any grid-enhancing technology or re-conductoring (potentially using alternative conductors) in the referenced area, and provide any presentations, reports, or other documents summarizing relevant findings for planning or decision-making purposes.

f. If EKPC plans to implement any grid-enhancing technology or re-conductoring projects in the referenced area, please describe those project and provide any presentations, reports, or other documents summarizing relevant findings for planning or decision-making purposes.

Response 49. All of the information relevant to this request was filed in the public record of Case No. 2022-00098. No information relevant to this request was filed confidentially. Sierra Club was an intervenor in Case No. 2022-00098 and should have all relevant information at its disposal.