

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST)	
KENTUCKY POWER COOPERATIVE,)	
INC. FOR 1) CERTIFICATES OF PUBLIC)	CASE NO.
CONVENIENCE AND NECESSITY)	2024-00370
TO CONSTRUCT GENERATION)	
RESOURCES; 2) FOR A SITE COMPATIBILITY)	
CERTIFICATE RELATING TO THE SAME;)	
3) APPROVAL OF DEMAND SIDE MANAGEMENT)	
TARIFFS; AND 4) OTHER GENERAL RELIEF)	

RESPONSES TO ATTORNEY GENERAL’S FIRST INFORMATION REQUEST

TO EAST KENTUCKY POWER COOPERATIVE, INC.

DATED DECEMBER 16, 2024

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**ELECTRONIC APPLICATION OF EAST
KENTUCKY POWER COOPERATIVE,
INC. FOR 1) CERTIFICATES OF PUBLIC
CONVENIENCE AND NECESSITY
TO CONSTRUCT GENERATION
RESOURCES; 2) FOR A SITE COMPATIBILITY
CERTIFICATE RELATING TO THE SAME;
3) APPROVAL OF DEMAND SIDE MANAGEMENT
TARIFFS; AND 4) OTHER GENERAL RELIEF**

**CASE NO.
2024-00370**

CERTIFICATE

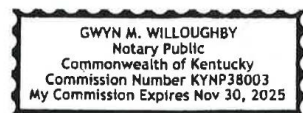
**STATE OF KENTUCKY)
)
COUNTY OF CLARK)**

Thomas Stachnik, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Attorney General’s First Information Request in the above-referenced case dated December 16, 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.

Tom J. Stachnik

Subscribed and sworn before me on this 2nd day of January, 2024.

Gwyn M. Willoughby
Notary Public



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TARIFFS; AND 4) OTHER GENERAL RELIEF)**

**CASE NO.
2024-00370**

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 Attorney General’s First Information Request in the above-referenced case dated December 16, 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 2nd day of January, 2024.

Gwyn Willoughby
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. 2024-00370
FIRST REQUEST FOR INFORMATION RESPONSE

ATTORNEY GENERAL'S REQUEST DATED DECEMBER 16, 2024
REQUEST 1

RESPONSIBLE PARTY: Greg Cecil

Request 1. Provide a copy of all confidential filings/workpapers filed with the Commission in this docket.

Response 1. Confidential information will be provided to all parties who execute a confidentiality agreement.

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REQUEST 2

RESPONSIBLE PARTY: Tom Stachnik

Request 2. Provide an analysis of the expected rate impacts for a residential ratepayer of average usage for:

- a. The construction and utilization of the proposed 745 MW CCGT unit at Cooper Stations;
- b. The proposed co-firing conversion at Cooper Station; and
- c. The proposed co-firing conversion at Spurlock Station.

Response 2. a-c. The proposed projects were not modeled individually, but as a package. Many components go into the calculation of overall costs and benefits to members, including capital costs, capacity sales in the PJM market, the value of off-system sales, and the operating cost of the new units versus existing generation. While EKPC does not have a calculation project by project of the cost or benefit to Owner-Members, projections indicate that EKPC will be able to implement the proposed portfolio of projects which meets generation needs and environmental compliance with modest rate increases, averaging less than 2% per year over the next 20 years.

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**ATTORNEY GENERAL'S REQUEST DATED DECEMBER 16, 2024
REQUEST 3**

RESPONSIBLE PARTY: Don Mosier

Request 3. Discuss whether EKPC forecasts a changing regulatory environment related due to the recent election results and whether this affects the CPCN proposal here in any way.

Response 3. The change of administration on January 20th 2025, does not affect this CPCN proposal in any way. Any relaxation of the rules, and/or replacement rules, may be countermanded or otherwise replaced by successive administrations in Washington, as has been the case over the past decade. EKPC believes that reducing greenhouse gas emissions long term remains the best strategy to protect its Owner-Members from the current Greenhouse Gas Rule and any future greenhouse gas (GHG) regulations requiring emission reductions. EKPC is committed to reducing its greenhouse gas emissions, as published in its Sustainability Plan, by 35% by 2035.

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ATTORNEY GENERAL'S REQUEST DATED DECEMBER 16, 2024

REQUEST 4

RESPONSIBLE PARTY: Tom Stachnik

Request 4. See Direct Testimony of D. Adams. Provide an analysis of the impact to the residential ratepayer of average usage driven by that the transmission investments discussed therein. Discuss whether and to what extent ratepayers in other jurisdiction will subsidize these projects through FERC-approved rates.

Response 4. The proposed projects were not modeled individually, but as a package. Many components go into the calculation of overall costs and benefits to members, including capital costs, capacity sales in the PJM market, the value of off-system sales, and the operating cost of the new units versus existing generation. While EKPC does not have a calculation project by project of the cost or benefit to members, projections indicate that EKPC will be able to implement the proposed portfolio of projects which meets generation needs and environmental compliance with modest rate increases, averaging less than 2% per year over the next 20 years.

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REQUEST 5

RESPONSIBLE PARTY: Mark Horn and Tom Stachnik

Request 5. Discuss the extent of gas pipeline extension and/or construction necessary to facilitate the projects proposed here. Please provide an analysis of the impact to the residential ratepayer of average usage driven by that investment.

Response 5. The interstate pipeline company will expand their existing natural gas infrastructure with an extension that will reach each of EKPC's coal-fired generating facilities and could have capacity for other potential economic development projects in the region. The Maysville Project, as named by the interstate pipeline company, is approximately 40 miles long and will be able to flow natural gas to Spurlock Power Station. The Pulaski Project, as named by the interstate pipeline company, is approximately 40 miles long and will be able to flow natural gas to Cooper Power Station. Both of the extension projects have routes that are primarily rural and avoid sensitive areas such as dense population, river crossings, and state-owned land.

The pipeline costs will be passed on to EKPC by the pipeline company and will increase the total cost for supplying gas to the units. The overall cost will be competitive with other

sources of power, and thus the overall cost borne by members as a result of this investment may not be higher than the cost achieved without the construction of the pipeline.

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REQUEST 6

RESPONSIBLE PARTY: Julia J. Tucker

Request 6. Provide an analysis of the Company's forecasted capacity and energy position over the next decade, including generation and load.

Response 6. EKPC recently revised its load forecast as part of its normal bi-annual load forecast update. The 2024 Long-Term Load Forecast ("LTLF") analysis resulted in an increase in system peak demand over the 2022 LTLF. As a result, EKPC is expected to have just enough existing generation capacity to meet its peak forecasted load from 2025 through 2030, but will not have sufficient capacity to meet its planning reserve requirement on top of the peak load. Without the proposed CCGT, EKPC would not be able to reliably meet its native load or planning reserve requirements after 2030. Although 2030 may seem like it is far off, the realities associated with developing a power generation resources dictate that starting a new project from scratch would be impossible to meet an in-service date by that time. Refer to the direct testimony of Julia J. Tucker, page 7 line 3 through page 19 line 6 for a detailed description of EKPC's capacity and energy position.

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ATTORNEY GENERAL'S REQUEST DATED DECEMBER 16, 2024

REQUEST 7

RESPONSIBLE PARTY: Julia J. Tucker

Request 7. Discuss any major new customers EKPC anticipated potentially serving, including but not limited to data centers.

Response 7. The 2024 LTLF does not include any data center, mega load, or new energy intensive industrial load. Any service of these loads would be above and beyond the forecast and generation requested in this application. EKPC has been approached by multiple large data centers, but no firm commitments have been made to date. EKPC does expect that some large data center load will eventually materialize.

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ATTORNEY GENERAL'S REQUEST DATED DECEMBER 16, 2024

REQUEST 8

RESPONSIBLE PARTY: Julia J. Tucker

Request 8. Discuss the importance EKPC places on the potential for off-system sales when making construction decisions.

Response 8. EKPC attempts to optimize its Owner-Members' generation assets within the PJM market to either take advantage of low energy prices or to hedge against energy prices that exceed the cost to generate. Off-system sales occur as a by-product of that optimization, most often when native load is lower than generation that is online and producing power according to PJM dispatch or must-run conditions. This can occur during off-peak periods such as overnight, in the middle of the day, and weekends when energy usage is lowest. EKPC does not pursue construction projects in order to make off-system sales.

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ATTORNEY GENERAL'S REQUEST DATED DECEMBER 16, 2024

REQUEST 9

RESPONSIBLE PARTY: Julia J. Tucker

Request 9. Provide all available data related to forecasts of natural gas costs on which the company relied when making the decision to propose this construction.

Response 9. Refer to attached excel spreadsheet, *AGI-9 - NG forecasts.xlsx*. The Cooper CCGT, Cooper Co-Fire, and Spurlock Co-Fire projects were priced at the "Columbia Mainline" natural gas costs in Column E of the spreadsheet.

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REQUEST 10

RESPONSIBLE PARTY: Brad Young

Request 10. Please identify all alternative technologies the companies considered before deciding to construct the proposed combined cycle and discuss why each technology ultimately was not selected.

Response 10. EKPC has taken a system wide approach when assessing both the technology type and amount of generation necessary to support reliability of the system and to serve continued industrial and residential load growth as part of economic development and organic load growth in the southern area of EKPC's transmission system. As part of the proposed generation plan, EKPC is seeking to construct a new reciprocating internal combustion engine ("RICE") facility in Liberty, Kentucky with a net generation capacity of 214 MW. This RICE technology will not only support reliability and meet generation load forecast needs, but will also provide intermittent dispatchable benefits to support EKPC's planned solar generation facilities in both Fayette and Marion Counties, totaling approximately 136 MW.

In addition to the aforementioned proposed generation facilities and due to need for additional energy to serve as the replacement capacity for the eventual retirement of Cooper Unit 1, EKPC identified the most appropriate and cost effective technology to provide a reliable and cost-effective generation facility capable of supporting base load along with the flexibility to adjust to intermittent periods due to the increased penetration of renewable generation on EKPC's and PJM's transmission system. To meet this necessary generation resource need, EKPC selected and is proposing a new two-on-one combined cycle "F" class Combined Cycle Gas Turbine that will provide up to approximately 745 MW of generation. The "F" Class model of combustion turbine is a proven design with over 400 units in operation.

There are other classes of combustion turbines that EKPC considered. The "E" class is a very reliable unit in the industry, but does not give the efficiency or output required when in a combined cycle mode. EKPC would not get an economy of scale installation or operation due to the lower unit rating. There are not as many "H" and "J" class units as compared to the "F" class. Choosing one of those models would mean a long-term reliance on the original equipment manufacturers. A one-on-one configuration of an "H" or "J" class unit would have resulted in a comparable sized unit rating as what EKPC is proposing. However, it would introduce more shaft risk than the two-on-one mode utilizing the "F" Class technology. EKPC also sees a benefit in the two-on-one "F" Class combined cycle in a low-load situation. A two-on-one configuration can achieve higher efficiency at low load operation because one combustion turbine can be idled. A low-load operation for a one on one "H" or "J" class configuration would have a poor heat rate in a low-load situation even in a combined cycle mode.

Lastly, EKPC has explored the addition of batteries at Cooper Station but has ruled them out due to high installation costs and short duration (4 hour maximum) dispatch capability. In addition, for severe weather events such as Winter Storm Elliott, PJM experienced very tight resource capacity constraints that negated their ability to increase load on the system during off peak operations for pumped storage resources. Battery resources could be susceptible to this same type of constraint and render them extremely limited in operation during peak load periods.

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REQUEST 11

RESPONSIBLE PARTY: Tom Stachnik

Request 11. See Direct Testimony of T. Stachnik at 7. Provide the best estimate (or any assumption used) of U.S. treasury rates that will determine the ultimate financing rate of the projects.

Response 11. The treasury rate that the loans will be based on is the average Treasury rate for the weighted life of the 35-year amortizing loan, roughly the 20-year Treasury rate. While future rates could vary, for projections, we have assumed a 4.75% rate.