

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)	CASE NO.
CONVENIENCE AND NECESSITY TO)	2024-00310
CONSTRUCT A NEW GENERATION)	
RESOURCE; 2) A SITE COMPATIBILITY)	
CERTIFICATE; AND 3) OTHER GENERAL RELIEF)	

RESPONSES TO ATTORNEY GENERAL’S FIRST REQUEST FOR INFORMATION

TO EAST KENTUCKY POWER COOPERATIVE, INC.

DATED OCTOBER 28, 2024

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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CERTIFICATE; AND 3)
OTHER GENERAL RELIEF)

CASE NO.
2024-00310

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

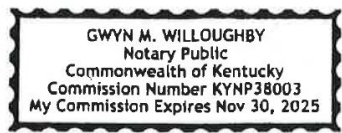
Greg Cecil, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Attorney Generals First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein are true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

Greg Cecil

Subscribed and sworn before me on this 12th day of November, 2024.

Gwyn M. Willoughby

Notary Public



COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

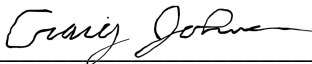
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CERTIFICATE

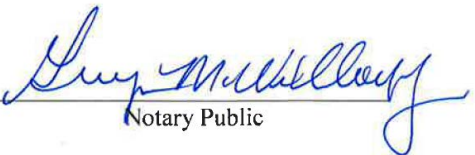
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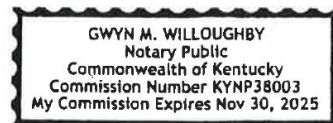
STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Craig Johnson, 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 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.



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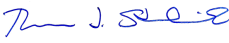
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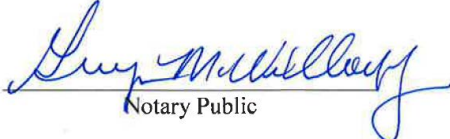
CERTIFICATE

STATE OF KENTUCKY)
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COUNTY OF CLARK)

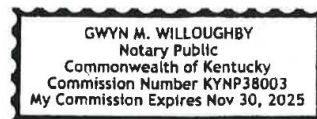
Thomas J. Stachnik, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Attorney General’s First Request for Information in the above-referenced case dated October 28, 2024, and that the matters and things set forth therein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



Subscribed and sworn before me on this 12th day of November, 2024.



Notary Public



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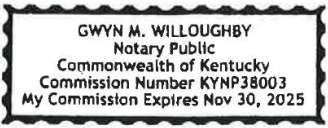
STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Attorney General’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 12th day of November, 2024.

Gwyn M. Willoughby
Notary Public



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

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 1

RESPONSIBLE PARTY: Greg Cecil

Request 1. Provide copies of all workpapers supporting calculations at issue in this proceeding.

Response 1. Please see the responses to Staff's First Request for Information.

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

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024
REQUEST 2

RESPONSIBLE PARTY: Greg Cecil

Request 2. Provide copies of all confidential documents previously filed with the Commission in this proceeding.

Response 2. All confidential information will be provided to parties granted intervention after appropriate confidentiality agreements have been executed.

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

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 3

RESPONSIBLE PARTY: Tom Stachnik

Request 3. Refer to the Direct Testimony of Don Mosier at 7 and Thomas Stachnik stating that the Liberty RICE Facility will require expenditure of capital costs of approximately \$500 million.

a. Provide an analysis of the rate impacts for the residential customer of average usage (of EKPC's distribution cooperative partners) related to the expenditure of these capital costs.

i. If necessary, demonstrate how those rate impacts will change over time as additional funds are expended.

b. Provide an analysis of the rate impacts for the residential customer of average usage (of EKPC's distribution cooperative partners) related to the expenditure of these capital costs and including projected fuel costs necessary to operate the units.

Response 3.

a. Assuming a 30-year depreciation and a 4.75% financing rate, this expenditure will initially add cost of approximately $\$500 \text{ million} \times (1/30 + 4.75\%) = \40.42 million of initial annual costs to

EKPC. Assuming this cost is spread over 13.279 million MWh (the most recent 2023 total sales), this would imply an impact to an average consumer's 1,250 kWh monthly bill of \$3.42 per month. However, this only considers one cost component of the project. Other components such as the capacity sales in the PJM market, the value of off-system sales, and lower operating costs of the new units versus existing generation or purchases could ultimately result in a savings to the average consumer's monthly bill.

b. Actual fuel costs are passed on to the consumer via the Fuel Adjustment Clause. The RICE plant would have a better heat rate than any of the existing combustion turbines on the EKPC system. That means it converts fuel to energy more efficiently, resulting in net savings. As an example, if a combustion turbine typically runs 20 percent of the time ($8,760 \text{ hours / yr} * 0.20 = 1,752 \text{ hours / yr}$) and the heat rate is improved by 1,000 btu/kWh at a gas price of \$3.00/mmbtu, then a fuel savings of \$3.00 / MWh would be realized for 1,752 hrs/yr or \$5,256 / MW is saved in fuel. The plant is expected to have a net output of 214 MW, so the fuel savings could be \$1.1 million per year compared to the most efficient combustion turbine unit on the current system. However, this plant will be offsetting less efficient units most of the time, saving more like 3,500 btu/kWh on the heat rate and creating a fuel savings closer to \$3.9 million per year as compared to combustion turbine generated energy. The flexible units, with good heat rate, will also offset market purchases that are made today when energy prices are higher than the baseload unit costs but less than the combustion turbine costs. EKPC purchases roughly half of its annual energy needs from the market on an economic basis. The RICE units could reasonably save \$5 / MWh on 214 MW of energy 2,500 hours per year for a savings of \$2.7 million per year. In total, it would be reasonable to see roughly \$4 million in fuel savings as compared to today's fuel costs.

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

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 4

RESPONSIBLE PARTY: Darrin Adams

Request 4. Refer to Direct Testimony of Darrin Adams.

- a. Provide a detailed estimate of the costs associated with the transmission projects necessitated by the construction of the Liberty RICE facility.
- b. Discuss how the costs associated with the transmission projects discussed by Mr. Adams will be allocated. Specifically, will the transmission costs be borne by EKPC ratepayers only or will any portion of the costs be allocated to other members of PJM.
- c. Provide an analysis of the rate impacts for the residential customer of average usage (of EKPC's distribution cooperative partners) for the transmission projects discussed by Mr. Adams.

Response 4.

- a. See EKPC's response to Commission Staff's First Request for Information, Request 44 for the estimated costs. These cost estimates are general planning-level estimates that are based on rule-of-thumb cost assumptions – for instance, a cost per mile to rebuild a generic 69 kV line in the existing rights-of-way. Detailed estimates will be developed for the

projects once detailed scoping and engineering work is performed and the projects enter the detailed design phase of their lifecycles.

- b. Since the required transmission interconnection and network upgrade costs will be due to a generator-interconnection request that has been made by EKPC to connect the Liberty RICE facility to a portion of the transmission system planned and operated by PJM, the transmission costs will be allocated per PJM's cost allocation rules for such projects. The physical interconnection costs will be fully EKPC's responsibility, since those facilities only benefit EKPC's proposed Liberty RICE generation facility. The network upgrade costs may be shared by other (merchant) generation facilities, if such facilities request interconnection in the same region as the Liberty RICE facility and contribute to the flows on the overloaded facilities that PJM identifies. If this is the case, PJM will identify the relative contribution of each proposed generator in the area to the flows on the overloaded facility and assign the transmission upgrade costs based on those relative flow contributions.
- c. The capital costs of the transmission are included in Response 3.a.

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

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 5

RESPONSIBLE PARTY: Julia J. Tucker

Request 5. Provide all available forecasts of fuel costs (natural gas and the back-up ultra-low sulfur fuel oil) on which the Company relied in considering whether to undertake this project.

Response 5. See Excel spreadsheet *AG1 - DR5 - NG and Diesel Forwards.xlsx* uploaded separately in the electronic filing system.

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

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 6

RESPONSIBLE PARTY: Craig Johnson

Request 6. Will any additional ultra-low fuel oil be stored on site beyond the amount needed to run for 72 hours? If so, how much will be stored on site and how long will that amount allow the units to run.

Response 6. There will be 72 hours of fuel oil (ULSD) stored onsite in two identical tanks. Each tank has a storage volume of 630,000 gallons. The station requires approximately 976,000 gallons of ULSD for a 72 hour full load operation. The tanks capacity is oversized to accommodate pilot fuel oil usage during normal operation, and accommodate the expansion of the ULSD due to ambient air temperature changes, and the inability to completely utilize all the ULSD when the tank volume gets below 10% of the rated tank capacity. The onsite backup diesel generator will contain an integral 1,033 gallon double walled tank, and the diesel fire pump enclosure will house a 200 gallon double walled tank.

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

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 7

RESPONSIBLE PARTY: Julia J. Tucker

Request 7. Discuss whether the consideration of RICE technology is wholly driven by the addition of intermittent resources and whether less costly technology could be utilized but for the addition of intermittent resources.

Response 7. The consideration of the RICE units was not wholly driven by the addition of intermittent resources. The economics, operational flexibility (start time, ramp rate, and turn-down), and compliance with environmental regulations were also key factors in the final decision to choose the RICE technology. Refer to EKPC's response to Staff's First Request for Information, Item 6.

**EAST KENTUCKY POWER COOPERATIVE, INC.
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FIRST REQUEST FOR INFORMATION RESPONSE**

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 8

RESPONSIBLE PARTY: Julia J. Tucker

Request 8. See Attachment JJT-1 at 4. Discuss whether “replacing” aging coal resources with cleaner resources and/or market purchases” increases the affordability and reliability of the service received by ratepayers of EKPC’s distribution cooperatives.

a. Specifically, confirm or deny whether EKPC takes the position that increasing reliance on market purchases will cause the service its ratepayers receive to be more affordable and reliable.

Response 8. EKPC’s existing coal resources have provided reliable, economic energy to the EKPC Owner Members for a long time and continue to do so today. EKPC takes the position that as aging coal resources reach their useful end-of-life it is prudent to invest in technologies that provide safe and reliable energy at competitive rates. Given the various regulatory constraints hoisted upon generation owners, it is not possible to build a new coal plant, so it is necessary to consider all avenues of delivering reliable and competitive energy, including cleaner resources and/or market purchases. Cleaner resources, such as the RICE facility requested in this application, provide a reliable source of dispatchable capacity at a variable cost competitive with the current generation fleet and lower than forecasted market prices. Existing coal resources are still needed,

and the addition of the RICE facility provides increased diversification to the EKPC generation portfolio.

EKPC uses the PJM energy market to optimize its Owner-Member's generation fleet to dispatch units. EKPC has been a net-purchaser from the PJM energy market much of the time, as it is not always economic to dispatch EKPC's peaking resources against market prices. PJM's system-wide carbon intensity is lower than EKPC's own portfolio, thus making market purchases cleaner. EKPC benefits economically from optimizing its portfolio in the energy market, however it also receives the benefit of lower carbon emission through those economic purchases. However, EKPC is committed to planning for enough generation capacity in its portfolio to meet its load needs with known generation capacity, either self-owned or purchased through long term firm contracts. EKPC only utilizes the PJM market when it is economically prudent and beneficial to its Owner Members, and generally for limited time horizons.

Finally, market purchases, in addition to purchases in the PJM energy market, are also meant to convey the ability to contract bi-lateral purchased power agreements ("PPAs") as a potential alternative to self-built generation. EKPC currently utilizes PPA contracts for clean hydro energy resources, some of which also provide capacity and renewable energy credit benefits to its portfolio. In this way, EKPC can meet its mission to sustainably deliver safe, reliable and competitive energy.

**EAST KENTUCKY POWER COOPERATIVE, INC.
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FIRST REQUEST FOR INFORMATION RESPONSE**

ATTORNEY GENERAL'S REQUEST DATED OCTOBER 28, 2024

REQUEST 9

RESPONSIBLE PARTY: Julia J. Tucker

Request 9. If the RICE Facility is not approved, what will EKPC do to ensure reliability of services for its members?

Response 9. Should the RICE facility not be approved, EKPC will seek an alternative resource to provide reliable service to its members, but it would be expected to come at a higher cost when considering the full life cycle of the RICE facility. EKPC is committed and obligated to provide safe, reliable, cost competitive electric energy services to its Owner Members. Any change in any portion of EKPC's overall plan for power supply will require alternative arrangements. Any delay caused by lack of supply chain availability, labor shortages, or any other measures will cause EKPC to need to consider alternative power supply resources such as Power Purchase Agreements in the short term until the long-term supply option can be installed and made operational. EKPCs long term power supply plan is based on the total plan being implemented, not segmented. Any time one piece of the plan is changed, alternative supply will need to be sourced. The plan does not provide for excess capability that would allow for resources to be delayed or eliminated with no repercussions.