

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 COMPATABILITY)
CERTIFICATE; AND 3) OTHER GENERAL RELIEF)**

**CASE NO.
2024-00310**

**RESPONSES TO STAFF’S POST-HEARING INFORMATION REQUEST
TO EAST KENTUCKY POWER COOPERATIVE, INC.**

DATED MARCH 20, 2025

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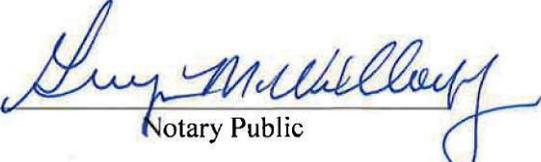
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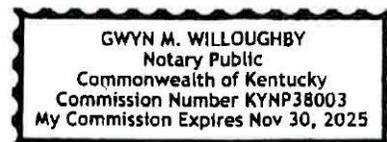
STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Scott Drake, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Commission Staff's Post-Hearing Request for Information in the above-referenced case dated March 20, 2025, 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 25th day of March, 2025.


Notary Public



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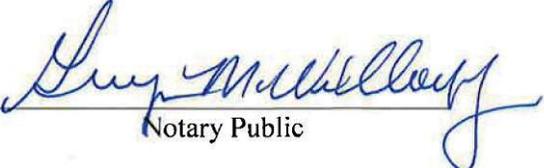
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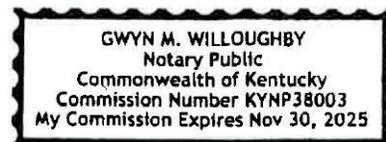
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COUNTY OF CLARK)

Mark Horn, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Commission Staff's Post-Hearing Request for Information in the above-referenced case dated March 20, 2025, 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.

Mark Horn

Subscribed and sworn before me on this 25th day of March, 2025.


Notary Public



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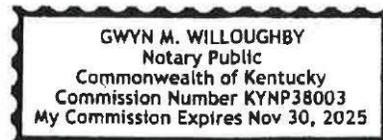
Craig Johnson, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Commission Staff's Post-Hearing Request for Information in the above-referenced case dated March 20, 2025, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Craig Johnson

Subscribed and sworn before me on this 25th day of March, 2025.

Gwyn M. Willoughby

Notary Public



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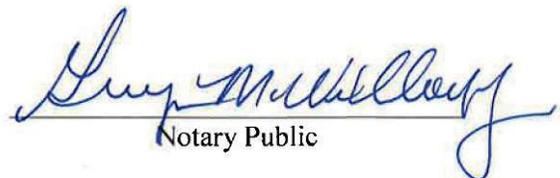
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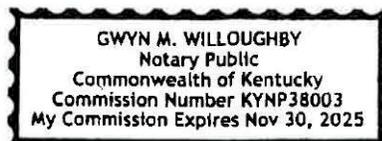
STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Don Mosier, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Commission Staff's Post-Hearing Request for Information in the above-referenced case dated March 20, 2025, 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.

Don Mosier

Subscribed and sworn before me on this 25th day of March, 2025.


Notary Public



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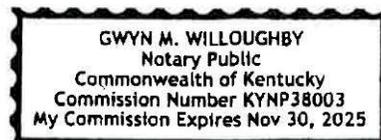
Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to Commission Staff's Post-Hearing Request for Information in the above-referenced case dated March 20, 2025, and that the matters and things set forth therein are 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 25th day of March, 2025.

Gwyn M. Willoughby

Notary Public



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

STAFF'S REQUEST DATED MARCH 20, 2025

REQUEST 1

RESPONSIBLE PARTY: Brad Young

Request 1. Provide a list of the twenty-five reciprocating internal combustion engines (RICE) facilities built or supervised by Burns and McDonald and the locations of each. Identify as part of the list the facilities toured by EKPC.

Response 1. Refer to Burns & McDonnell experience list "*Staff 1-BMcD Recip Experience_2025.pdf*". EKPC toured the New Orleans Power Station owned by Entergy and the Benndale Power Plant owned by Cooperative Energy. In addition to these two facilities EKPC toured Wartsila's maintenance shop in New Orleans, LA as well.

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REQUEST 2

RESPONSIBLE PARTY: Brad Young

Request 2. Provide a list of locations of Wartsila RICE electricity generating units in the United States.

Response 2. Refer to the attached "*Staff 2-Wärtsilä US Installed Fleet – January 2025.pdf*".

EAST KENTUCKY POWER COOPERATIVE, INC.
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STAFF'S REQUEST DATED MARCH 20, 2025

REQUEST 3

RESPONSIBLE PARTY: Brad Young

Request 3. Provide the noise impact studies available to EKPC for any other RICE facility.

Response 3. Please see the attached documents titled "*Staff 3 – Basin Site Compatibility Study.pdf*" and "*Staff 3 – Sound Study Report.pdf*".

EAST KENTUCKY POWER COOPERATIVE, INC.
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STAFF’S REQUEST DATED MARCH 20, 2025

REQUEST 4

RESPONSIBLE PARTY: Mark Horn

Request 4. Provide the size and type of natural gas pipeline that will connect from the TC Energy Corporation (TC Energy) line to the natural gas provider EKPC will contract with for gas supply to the Liberty facility.

Response 4. TC Energy’s Columbia Gulf Transmission (“CGT”) is the Transporter that will transport the physical natural gas that is bought and scheduled from producers and/or marketers to the Liberty facility. EKPC is identified as the Shipper. The existing CGT interstate pipeline infrastructure consists of multiple pipelines that make up the mainline. The transmission interconnection will utilize two primary mainline pipelines: ML200 (30-inch diameter) and ML300 (36-inch diameter). From these mainlines, the natural gas will be routed through a 10-inch diameter steel pipeline with a wall thickness of 0.365 inches for approximately 1,000 feet to the Metering and Regulating Station (“M&R Station”). The M&R Station will reduce the pressure significantly and the natural gas pipeline from the exit flange of the M&R Station to the new generation units at Liberty Station will be 10-inches in diameter. All of the natural gas facilities,

other than the pipeline from the M&R Station to the new RICE generation units at Liberty Station, will be owned, operated, and maintained by CGT.

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REQUEST 5

RESPONSIBLE PARTY: Mark Horn

Request 5. Provide each size and type of natural gas pipeline that will run within the project boundary.

Response 5. From the mainline to the Metering and Regulating Station ("M&R Station") the natural gas pipeline will be steel with a 10-inch in diameter. The M&R Station, which sits within the project boundary, will reduce the pressure significantly and the natural gas pipeline from the exit flange of the M&R Station to the new generation units at Liberty Station will be 10-inch in diameter (schedule 40 carbon steel).

EAST KENTUCKY POWER COOPERATIVE, INC.
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STAFF'S REQUEST DATED MARCH 20, 2025

REQUEST 6

RESPONSIBLE PARTY: Craig Johnson

Request 6. State whether the RICE units will require a minimum natural gas pressure for the natural gas to be supplied to the Liberty facility.

Response 6. Refer to Exhibit BY-1, Section 3.3.9 Fuel, which describes the natural gas fuel requirements for the RICE engines. "Typical reciprocating engines require fuel gas pressure ranging from 85 psig to 125 psig". The minimum operating pressure is expected to be 85 psig. The supply pressure from the Metering and Regulating Station will vary from 150 psig to a maximum of 225 psig.

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STAFF'S REQUEST DATED MARCH 20, 2025

REQUEST 7

RESPONSIBLE PARTY: Craig Johnson

Request 7. State what the necessary or preferred heat value of the natural gas is to be supplied for the units.

Response 7. Refer to exhibit BY-1, Appendix L, Table 1, Columbia Gulf Transmission Pipeline Gas Quality. The Higher Heating Value (HHV) Design Range is a minimum of 1045 Btu/lbm. The expected or preferred is the Guarantee HHV Basis of 1062 Btu/lbm.

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REQUEST 8

RESPONSIBLE PARTY: Don Mosier

Request 8. Refer to the recently disclosed prospective customer in Marion County, Kentucky, included in the most recent PJM Load Forecast. State and explain what stage of the negotiating or contracting process EKPC is currently in for the special contract with the prospective customer.

Response 8. EKPC has not yet begun negotiations on a special contract to supply power to the referenced project. At this point, conversations with a potential prospective customer remain largely hypothetical on power supply options. Nevertheless, EKPC is under a non-disclosure agreement and cannot comment on the potential project beyond what has previously been disclosed to PJM and referenced in the data request.

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STAFF’S REQUEST DATED MARCH 20, 2025

REQUEST 9

RESPONSIBLE PARTY: **Julia J. Tucker**

Request 9. Provide the exhibit presented by Julia Tucker at the hearing on March 18, 2025, titled “EKPC Existing Generation and Long Term PPA.”

Response 9. EKPC Existing Generation and Long Term PPA

UNIT	Summer Rating (MW)	ELCC Adjusted Summer Rating (MW)	Winter Rating (MW)
Spurlock 1	300	267	300
Spurlock 2	510	454	510
Spurlock 3 - Gilbert	268	241	268
Spurlock 4	268	241	268
Cooper 1	116	106	116
Cooper 2	225	204	225
Smith 1	104	77	142
Smith 2	104	90	142
Smith 3	104	89	142
Smith 4	73	59	93
Smith 5	73	61	88
Smith 6	73	59	88
Smith 7	73	59	88
Smith 9	75	54	103
Smith 10	74	53	103
Bluegrass 1	167	115	189

Bluegrass 2	167	116	189
Bluegrass 3	167	116	189
Bavarian LFG	4.6	BTM	4.6
Green Valley LFG	2.3	BTM	2.3
Hardin Co LFG	3.0	BTM	3.0
Pendleton Co LFG	3.0	BTM	3.0
Glasgow LFG	0.9	BTM	0.9
Cooperative Solar 1	8.5	BTM	8.5
TOTAL OWNED	2,963.3	2,461	3,265.3
SEPA PPA	170	149	170
TOTAL	3,133.3	2,610	3,435.3

BTM is Behind the Meter Generation. It nets against load and is not sold into the PJM Capacity Auction. BTM works to reduce EKPC's load obligation to PJM and is accounted for in the summer load obligation values.

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REQUEST 10

RESPONSIBLE PARTY: Mark Horn

Request 10. Provide the current contract or draft of special contract with Columbia Gas for this facility.

Response 10. The EKPC Liberty Project Precedent Agreement with Columbia Gulf Transmission, LLC has been filed confidentially with the Public Service Commission, along with a Motion for Confidential Treatment. The attachment has been filed as, "*Staff 10- Confidential Liberty Precedent Agreement.pdf*".

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REQUEST 11

RESPONSIBLE PARTY: Jerry Purvis

Request 11. Explain how current greenhouse gas (GHG) regulations will affect your planned natural gas combined cycle (NGCC), which is projected to come online in 2029.

Response 11. The planned natural gas combined cycle (NGCC) is not part of this proceeding. The record of this proceeding was incorporated into the record of the 2024-00370 proceeding which is where the NGCC is proposed. The GHG rule and its effect on the NGCC is discussed in the testimony of Jerry Purvis as well as responses to data requests in Case No. 2024-00370. The GHG Rule remains in effect and EKPC has not altered its generation plans and does not intend on changing its plans even if the GHG Rule is changed. Both the RICE units in this proceeding and the projects in Case No. 2024-00370 are all part of a comprehensive plan to meet EKPC's known generation needs.

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REQUEST 12

RESPONSIBLE PARTY: Jerry Purvis

Request 12. Assuming the current GHG regulations stay in effect, explain whether this unit would have dispatch and or capacity factor limitations as a result of the GHG regulations. If there are limitations, explain what they are and whether it would be possible for the unit to circumvent the restrictions.

Response 12. As set forth in Case No. 2024-00370, EPA provides three options for new combustion turbines: low load, intermediate load or baseload. If baseload is the option selected, the combustion turbine must be outfitted with carbon capture and sequestration. Option 1 limits the unit to operate under 20% for peaking and option 2 defines intermediate option under 40% capacity factor. All new combustion turbines purchased must conform to the requirements of being highly efficient with regards to GHG emissions. Option 1 and 2 do not require adding CCS to controls for GHG emissions. EKPC selected option 2 pursuant to the final rule.

For Case No. 2024-00370, EKPC elected under the final NSPS GHG Rule option to select Option 2, "intermediate load" that allows utilizing of the unit up to 40% capacity factor. To

Circumvent this 40% capacity factor limitation under the NSPS, EPA would have to amend or repeal the rule. The EPA has signaled its intention to do this.

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STAFF'S REQUEST DATED MARCH 20, 2025

REQUEST 13

RESPONSIBLE PARTY: Julia J. Tucker

Request 13. If restrictions exist, explain whether they affect the unit's PJM accredited capacity value.

Response 13. Not applicable.

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REQUEST 14

RESPONSIBLE PARTY: Julia J. Tucker

Request 14. If the restrictions exist, explain whether they affect the amount of and potentially the timing of energy that could be sold into the energy market.

Response 14. Not applicable.

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REQUEST 15

RESPONSIBLE PARTY: Julia J. Tucker

Request 15. Explain whether EKPC's RTSim modeling considered any restrictions brought about by current GHG regulations. If so, explain how the generation limitations were modeled and what were the results.

Response 15. The RTSim modeling did not consider any restriction related to GHG regulation regarding the RICE units.

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STAFF'S REQUEST DATED MARCH 20, 2025

REQUEST 16

RESPONSIBLE PARTY: Don Mosier

Request 16. Provide any quantitative support or rate impact of EKPC's goal of reducing greenhouse gas emissions by 35 percent by 2035.

Response 16. The goal to reduce greenhouse gas emission by 35% by 2035 is a goal, not a mandate. EKPC's Board and Executive Staff have given direction to diversify fuel supply to help achieve this goal, but not at the expense of economics. Renewable projects, or those that help lower carbon intensity, are assessed for their relative competitiveness within the EKPC generation portfolio and in the PJM markets. EKPC has provided in 2024-00370 the forecasted rate impact of its generation expansion plan including RICE, Cooper CCGT, co-fire conversion of Cooper 2 and Spurlock 1 through 4, along with four new solar projects (as part of EKPC's New ERA application).¹

¹ See, East Kentucky Power Cooperative, Inc.'s Responses to Joint Intervenors' Second Request for Information Items 8 (a) and 8 (c), (Jan. 31, 2025).

EAST KENTUCKY POWER COOPERATIVE, INC.
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STAFF'S REQUEST DATED MARCH 20, 2025

REQUEST 17

RESPONSIBLE PARTY: Scott Drake

Request 17. State whether EKPC intends to bring the RICE units online as they are completed or whether EKPC intends to bring all 12 units online at once.

Response 17. Refer to Exhibit BY-1, Appendix Q, Project Schedule. The final date of commissioning all of the plant support systems is scheduled for July 20, 2028. At this time each engine will be commissioned for operation which is expected to finish on November 9, 2028. During this 16 week engine commissioning period, each engine will be individually commissioned and operated. But there will be times during the engine commissioning period that multiple engines could be operating. It is planned that after each engine has been commissioned, the station will not be commercially available until all of the engines and supporting auxiliary equipment are successfully operated and have met the contractual performance guarantees which is scheduled for January 9, 2029.

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REQUEST 18

RESPONSIBLE PARTY: Jerry Purvis

Request 18. State whether EKPC is aware of dispatch or capacity factor constraints that may be placed on the RICE units as a result of related air permits.

Response 18. EKPC proposed an air permit application to meet EPA National Ambient Air Quality Standards with maximum flexibility and utilization of up to 100% potential to emit under EPA's prevention of significant deterioration (PSD) program without capacity factor limitations. The air permit application is under review by the Kentucky Division for Air Quality and later, EPA. We are not aware of any restrictions to date. However, KDAQ and EPA have not issued a fully authorized permit to construct or operate.

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REQUEST 19

RESPONSIBLE PARTY: Julia J. Tucker

Request 19. State whether the air permit dispatch or capacity factor constraints for combustion turbines (CT) are included EKPC's RTSim modeling.

Response 19. EKPC models emission limitations for each CT in its fleet. EKPC did not model capacity factor constraints for any unit in its fleet.