

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

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

**RESPONSES TO COMMISSION STAFF’S THIRD INFORMATION REQUEST**  
**TO EAST KENTUCKY POWER COOPERATIVE, INC.**

**DATED FEBRUARY 19, 2025**













**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**CASE NO. 2024-00370**  
**THIRD REQUEST FOR INFORMATION RESPONSE**

**COMMISSION STAFF'S REQUEST DATED FEBRUARY 19, 2025**  
**REQUEST 1**

**RESPONSIBLE PARTY: Darrin Adams**

**Request 1.** Refer to EKPC's response to Commission Staff's Second Request for Information (Staff's Second Request), Item 23.

a. Explain if the estimated transmission costs that EKPC noted ranged from \$79,430,000 to \$127,595,000, are included in the estimated \$1.317 billion cost estimate for the Combine Cycle Gas Turbine (CCGT).

b. If not, provide details on the transmission-related activities and related costs required to support the Cooper CCGT project.

**Response 1.**

a. The \$1.317 billion cost estimate includes assumed transmission costs of \$84.7 million, which EKPC believes to be a reasonable estimate.

b. Expected transmission-related costs are included in the overall cost estimate for the Cooper CCGT facility. These costs could be higher than the \$84.7 million included in the estimate, depending on PJM generation-interconnection queue study results, but are expected to be no higher than the \$127.595 million identified as the upper boundary of transmission costs for the project.



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**REQUEST 2**

**RESPONSIBLE PARTY: Darrin Adams**

**Request 2.** Refer to EKPC's response to Staff's Second Request, Item 25. Explain if the installation of the proposed Cooper 1 CCGT would be required if the transmission upgrades, as detailed in the response, were implemented.

**Response 2.** The transmission upgrades identified in the referenced response would provide additional support for the southern region of Kentucky, thereby decreasing the reliance on regional generation for grid support. However, continued load growth in the area will eventually utilize additional capacity and margin that would be provided by these transmission projects. Therefore, additional local generation in the area provides a more robust, reliable system to meet the long-term needs of the system.

Furthermore, the addition of a new generating facility at Cooper Station is needed to meet EKPC's generation capacity requirements. EKPC's winter peak load is projected to exceed its generation capabilities. EKPC needs both the Liberty RICE facility that is the subject of Case No. 2024-00310 and the Cooper CCGT facility in this application to address EKPC's projected capacity deficit. Transmission-system improvements in the area provide no generation-capacity

benefits, and therefore cannot meet the multiple EKPC system needs – including the primary objective of adding sufficient generation capacity – driving this application, whereas the Cooper CCGT facility addresses these multiple needs holistically.

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REQUEST 3

RESPONSIBLE PARTY: **Julia J. Tucker**

**Request 3.** Refer to the Direct Testimony of Julia Tucker (Tucker Direct Testimony), page 26, line 11. State whether any generating units connected to EKPC's transmission system were offline or derated during Winter Storm Elliott, and if so, identify each such unit, and explain why each such unit was offline or derated, how long each unit was offline or derated, and the extent to which each unit was derated.

**Response 3.** Please see attached excel spreadsheet, *Staff3.3-FAC Response\_2b.xlsx*, filed in Case No. 2024-00137, which shows all EKPC owned generation which was offline or derated during the events of Winter Storm Elliott along with the duration and cause of each outage. Technically, the Bluegrass units listed within the spreadsheet are not located on EKPC transmission, but are connected to Louisville Gas and Electric's ("LG&E") Buckner 345 kV substation. In addition to EKPC owned generation, the merchant solar facility owned by Turkey Creek Solar was operational prior to the events of Winter Storm Elliott. Output from that facility was very sparse during the event, with generation limited to the hours of 8:00am to 4:00pm, which is non-coincident with the peak load periods witnessed during the event. Please see attached excel

spreadsheet, *Staff3.3-MERCHANT\_SOLAR\_WSE.xlsx*, showing the output of the merchant solar facility by hour during the event.

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**REQUEST 4**

**RESPONSIBLE PARTY:                Julia J. Tucker**

**Request 4.**                Refer to EKPC's response to Staff's Second Request, Item 1, page 2. Provide any analysis, details, and supporting explanations of how the 2025 projects conform to the current and projected needs of EKPC.

**Response 4.**                Refer to the Application, Exhibit 3, Direct Testimony of Julia J. Tucker, Attachment JJT-4, Capacity Expansion Plan, the Hydro PPA is shown as supplying up to 300 MW of reliable peak energy during the winter period. This energy helps to meet EKPC's forecasted need. Refer to the Application, Exhibit 3, Direct Testimony of Julia J. Tucker, Figure 2, page 18. The Hydro PPA is shown as the green hashed bar while the 2024 long-term load forecast winter peaks are shown as the pink line. Without the Hydro PPA (green hashed bar), EKPC would fall short of supplying enough peak energy to meet its native load needs from 2025 through 2030 until the Liberty RICE and Cooper CCGT units are online. The dark magenta line represents EKPC's load plus planning reserve margin. Even assuming the approval of the Hydro PPA, EKPC is projected to be short in reference to its load even with the Liberty RICE project and the Cooper

CCGT plus planning reserves. The Hydro PPA is a needed hedge for EKPC forecasted winter load but also supplies reliable and competitively priced energy that would otherwise be purchased bilaterally through seasonal energy purchases or in the day-ahead or real-time markets. At present, the Hydro PPA agreement has not been successfully negotiated and is in jeopardy of not being realized.

While the solar facilities referenced in EKPC's response to Staff's Second Request, Item 1, page 2, do not supply EKPC with peak energy, they would supply competitively priced energy throughout the year which is planned to displace energy which would otherwise be purchased from the market. EKPC has not finalized its detailed analysis of either the Hydro PPA or New ERA solar facilities, however, EKPC has shown in this Application that whether or not the Hydro PPA or New ERA solar CPCNs are eventually filed and granted approval, EKPC still shows an undisputable need for the Cooper CCGT, Liberty RICE, and co-fire conversion projects along with its requested DSM and EE offerings.

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**REQUEST 5**

**RESPONSIBLE PARTY: Jerry Purvis**

**Request 5.** Provide a detailed description of how the co-fired Cooper Unit 2, Spurlock Unit 1, Spurlock Unit 2, Spurlock Unit 3, and Spurlock Unit 4 will comply with the May 2024 Environmental Protection Agency (EPA) Mercury and Air Toxics Standards (MATS) Rule as it relates to the required reduction of the Particulate Matter (PM) limits from 0.030 lbs./MMBtu to 0.010 lbs./MMBtu.

**Response 5.** Cooper Unit 2 and Spurlock Units 1, 2, and 4 comply today with the new MATs particulate matter limitations. This rule does apply more pressure to the units' operations and margin is significantly diminished. Spurlock Unit 3 is being studied now to see what can be done to improve its pulse jet baghouse to achieve the new limitations. Unit 3 and Unit 4 both have pulse jet baghouses but from different vintages of time and different PM limitations in the Title V. EKPC is confident Unit 3 can achieve it with some improvements since it is a sister unit to Unit 4. Once work is completed on Unit 3, it can achieve the new PM limitations under MATs.

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**REQUEST 6**

**RESPONSIBLE PARTY: Jerry Purvis**

**Request 6.** Refer to EKPC's response to Staff's Second Request, Item 8. If the environmental regulations discussed in the Declaration of Harm were to be rescinded, explain how that would affect EKPC's intentions toward implementing each of the proposed Certificates of Public Convenience and Necessity (CPCNs) in this proceeding.

**Response 6.** EKPC has not changed its intentions or plans. While it appears likely the referenced environmental regulations will either be modified or repealed, the timelines for doing so is uncertain and will certainly be met with litigation. Uncertainty as to the fate of the rules – which currently remain in effect – is a problem that is largely beyond EKPC's ability to control. What is certain is that EKPC needs additional generation resources to meet the forecasted loads identified and described by Ms. Tucker. Thus, even if a full repeal of the rules were to occur, EKPC would still need the additional generation proposed in this proceeding.



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REQUEST 7

RESPONSIBLE PARTY: Brad Young

**Request 7.** Refer to the Direct Testimony of Brad Young, EKPC Cooper Combined Cycle Project Scoping Confidential Attachment BY-1, Cooper Unit-2 Project Scoping Report Confidential Attachment BY-2, and Spurlock Unit 1-4 Co-Fire Project Scoping Report Confidential Attachment BY-3. Provide a more concise timeline for implementing each of the proposed CPCN projects in a single document with all estimated and drop dead dates for major events, including dates on which EKPC expects to obtain financing; file for and obtain required permitting from other agencies; retain engineering, project manager, and construction contractors; begin construction; and bring the projects into operation.

**Response 7.** See attachments, *Staff3.7-EKPC Cooper Co-Fire L1.pdf*, *Staff3.7-EKPC Spurlock Co-Fire L1.pdf*, and *Staff3.7- EKPC Cooper CC- 2x F CC-L1 – 02-02-25.pdf*. These are single page schedules providing a concise timeline for each of the projects, Cooper Combined Cycle, Cooper Co-Fire and Spurlock Co-Fire.

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**REQUEST 8**

**RESPONSIBLE PARTY:                Scott Drake**

**Request 8.**                Refer to the Direct Testimony of Scott Drake (Drake Direct Testimony), page 22, lines 17 through 19. Explain the methods in which EKPC advertises and markets the Button-Up Weatherization Program to target “end-use members with poor energy-performing homes.”

**Response 8.**                EKPC has a variety of communications materials available for owner-member cooperatives to highlight the program. EKPC has developed social media posts and video, in-office posters, counter cards and drive-thru signs, an online virtual energy auditing tool that provides recommendations to utilize the program as well as website and magazine articles highlighting the rebate program. Energy advisors and member services representatives also recommend the program when making energy saving recommendations to members.

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**REQUEST 9**

**RESPONSIBLE PARTY:**           **Scott Drake**

**Request 9.**           Refer to the Drake Direct Testimony, page 39 through 40. Clarify if the proposed Commercial & Industrial Thermostat Program caps the incentive for commercial and industrial customers. If yes, provide the capped incentive amount.

**Response 9.**           There is no limit or cap on the incentives for the Commercial & Industrial Thermostat Program.

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**REQUEST 10**

**RESPONSIBLE PARTY: Brad Young**

**Request 10.** During construction, explain what mitigation measures will be taken to reduce both the impact of the increased traffic as well as noise as it relates for the new school to be built near Cooper Station.

**Response 10.** Noise related issues at the new school are not expected to be a concern either during construction or once plant operation begins. The new construction site is located approximately three quarters of a mile away from the school with a heavily treed hill in-between. The noise evaluation that was conducted for the project predicts the noise levels at the school to be approximately 40 dBA which is the equivalent of a "Farm field with light breeze, bird calls" after the plant begins operation. It is not anticipated that noise during construction will exceed operating values of the plant.

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**REQUEST 11**

**RESPONSIBLE PARTY:**           **Julia J. Tucker**

**Request 11.**           Explain whether EKPC considered any alternatives to the proposed projects in this application if PJM Interconnection, LLC (PJM); neighboring utilities; or PJM market participants, including merchant generators within PJM, change expected resources decisions due to the withdrawal of or material changes to expected or proposed environmental regulations. Please update this response during this proceeding if changes during the course of this proceeding impact the proposed projects

**Response 11.**           EKPC has provided evidence through its 2024 long-term load forecast and capacity expansion plan that shows the need for additional capacity to meet growing demand. If anything, the continued volatility of capacity reform initiatives in the PJM market highlights another reason for EKPC to continue to maintain enough generation capacity to meet its native peak loads and not plan to be reliant upon PJM. Moreover, none of EKPC's neighboring utilities has significant additional capacity. Kentucky Power Company will soon lose access to its Mitchell Generating Station and be short on capacity until replacement capacity is secured. Kentucky Utilities and Louisville Gas & Electric Company are both seeking CPCNs to construct their own

native generation resources. Duke Energy Kentucky does not have significant additional capacity at its East Bend Generating Station and TVA recently announced that it could no longer accept new loads over 5 MW that were not interruptible due to capacity constraints. PJM, a region which includes both regulated and independent merchant, has indicated that it has concerns about reliability as soon as 2026 given PJM's 2025 load forecast. PJM's release of the 2025 load forecast projected a significant increase in future expected loads driven in large part by data centers and electrification that far exceeds any ability of retirement reversals to cover. In fact, PJM's concerns led it to request FERC approval of an expedited process to study new interconnection requests for projects that could be on-line as early as 2028. These factors were all taken into account in EKPC's resource planning, however, the self-evident nature of the lack of local and regional capacity over the long term indicated that expending significant time and resources evaluating just how short the market may be come would be unproductive and inefficient.

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**REQUEST 12**

**RESPONSIBLE PARTY:                Julia J. Tucker and Craig Johnson**

**Request 12.**                Refer to the Direct Testimony of Don Mosier, page 16.

- a.                Quantify the financial impact of the retirement of the Cooper Unit 1 facility. Include the impact on energy sales, capacity payments, and ancillary services and provide all work papers.
- b.                Provide the impact of the retirement on operating and maintenance costs and provide all work papers.

**Response 12.**

a.                EKPC has not performed a detailed retirement analysis of Cooper Unit 1 since no retirement date has been set for Cooper Unit 1. However, the following represent good faith estimates if Cooper Unit 1 were to be retired by December 31, 2031 (no retirement date has been set for Cooper Unit 1). Cooper Unit 1 had an average net market value of \$471,331 and capacity factor of 4% from 2025 through 2030, as shown in the confidential modeling output provided in the record. Cooper Unit 1 could receive \$16 million annually in capacity payments on average when assuming 106 MW of available unforced capacity ("UCAP") sold at the capacity price forecast supplied in EKPC's response to Joint Intervenors Second Request for information, Item

18. Cooper Unit 1 received just \$19,000 on average between 2023 through 2025 in ancillary service revenues. Its relatively low-capacity factor and limited operation flexibility inhibits its participation in the ancillary markets.

b. EKPC has not performed a detailed analysis of the operation and maintenance cost impact of retiring Cooper 1. EKPC did a review of the 2025 budget and made a good faith effort in identifying the non-fuel operating and maintenance cost reduction associated with retiring Cooper 1. The following table lists the maintenance accounts where spend would be reduced. The total estimated reduction is approximately \$2.5 million.

<b>Cooper 1- Maintenance Spend</b>		
<b>Project</b>	<b>Descr</b>	<b>2025 Budget</b>
03200	Rtn Boiler Plant Maintenance	993,592
03230	Boiler Feed System	139,730
03290	Regenerative Air System	15,928
03310	Primary Air System	9,860
03330	Electrostatic Precipitator	144,653
03385	Pulverizers	342,860
03395	Coal Feeder System	40,164
03510	Rtn Misc Ash System	194,756
03700	Rtn Misc Turbine Maintenance	123,564
03703	Valves	372
03705	Generator	7,500
03711	Circulating Water System	507,063
		<b>2,520,042</b>

There would be no savings in the maintenance of the common systems such as the scrubber. There could be a small reduction in the lime cost for the scrubber, but EKPC does not have a good way to identify that cost reduction. The other major identifiable operating cost saving is associated with coal combustion residuals (CCR) produced and landfilled. The budgeted cost for CCR disposal in 2025 for Cooper 1 is \$177,000. The reduction in Full Time Equivalents for



maintenance personnel are imbedded into the cost shown for the maintenance reductions. There would not be a reduction in operating personnel with the retirement of Cooper 1. Through prudent operation and maintenance of the Cooper 1 Unit over its 60+ year history of operations, EKPC anticipates being in a position for the eventual retirement of the unit to have little meaningful financial impact to EKPC.