COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

EAST KENTUCKY POWER COOPERATIVE, INC'S POST-HEARING RESPONSE BRIEF

Comes now East Kentucky Power Cooperative, Inc., ("EKPC" or the "Company") by and through the undersigned counsel, pursuant to the Kentucky Public Service Commission's ("Commission") March 24, 2025 Order setting forth a post-hearing procedural schedule and deadline for submitting a response brief and hereby tenders its response to the brief filed by the Appalachian Citizens' Law Center, Kentuckians for the Commonwealth, and Mountain Association (collectively "Joint Intervenors")[1] on May 6, 2025, and respectfully states as follows:

I. INTRODUCTION

Each of the parties in this proceeding filed post-hearing briefs on May 6, 2025. Both the Attorney General's Office of Rate Intervention ("Attorney General") and Nucor Steel Gallatin filed briefs in support of EKPC's Application in this proceeding.[2]

[1] Post-Hearing Brief of Joint Intervenors (filed May 6, 2025).

[2] Attorney General's Post-Hearing Brief (filed May 6, 2025) and Brief of Nucor Steel Gallatin (filed May 6, 2025).

II. ARGUMENTS

A. All Proposed Projects are Needed.

The Cooper CCGT is needed to improve the reliability and resiliency of EKPC's system[3] and meet the growing demand and base load generation retirements within the PJM system.[4] The proposed projects will allow EKPC to serve its winter load, cover its summer obligations to PJM, correct transmission concerns in the southern portion of the system, and improve EKPC's ability to hedge its natural gas costs.

The Attorney General and Nucor Steel Gallatin agree that EKPC's proposed projects are necessary. Nucor's post-hearing brief stated:

> EKPC has demonstrated that its proposed Cooper CCGT and its proposed modifications to Cooper 2 and Spurlock 1-4 are needed and will not result in wasteful duplication. These investments are needed to avoid even higher costs and risks from relying on the PJM capacity and energy markets. These investments are also consistent with the Legislative policy of in-state reliable generation. And the rate impact is a surprisingly modest 2% rate increase per year for 20 years. The Application should be approved.[5]

The Attorney General's post-hearing brief also supported EKPC's application in this proceeding and reinforced that EKPC supported the need for the proposed projects. The Attorney General's post-hearing brief stated as follows:

> The Commission should approve the CPCN because (1) the proposed generation is necessary to maintain reliable electric service and (2) it is a cost-effective means of doing so….[6] Given this deficit, EKPC must add generating resources. As reliable, dispatchable resources are retired from the PJM grid and are replaced by unreliable, intermittent resources, PJM will be hard-pressed to serve

[3] Application Exhibit 2 Direct Testimony Don Mosier, p. 17, (Nov. 20, 2024) ("Mosier Direct Testimony").

[4] Tucker Direct Testimony, p. 8.

[5] Nucor's Post-Hearing Brief, p. 12, (May 6, 2025).

[6] Attorney General's Brief, p. 3, (May 6, 2025).

> its rapidly increasing load.9 Market prices will increasingly reflect this constrained supply. The failure of EKPC to add resources will subject its ratepayers to the pricing of the PJM market, with tighter supply and market participants more desperate to secure that supply resorting to more increasingly manipulative measures. Thus, EKPC's plan to serve its native load through "steel in the ground," as opposed to simply planning to meet its PJM requirements, is prudent and the correct public policy for the Commonwealth.[7]

The Joint Intervenors are the only party that do not believe EKPC has shown the need for the projects. The Joint Intervenors view "need" from the standpoint that there is no need unless there is a system failure first, which is facially absurd. The Joint Intervenors do not understand the 2024 LTLF and continue to fail to recognize what EKPC's actual winter peak has been over the last three winter seasons and continues to incorrectly compare the 2022 LTLF and the 2024 LTLF. The Joint Intervenors ignore the fact that EKPC set a new winter peak in Winter Storm Elliott, then again in Winter Storm Gerri, and narrowly missed setting a new winter peak in Winter Storm Enzo while one of its largest customers was offline.[8]

East Kentucky Power Cooperative's ("EKPC") 2024 Long Term Load Forecast ("LTLF") is based on a vast amount of data, modeling, and scrutiny. The process starts with analyzing county-level economic forecasts developed by IHS Global Insight Inc., an Entity of S&P Global ("IHS"). IHS is known worldwide for its expertise in forecasting economic series. The economic forecasts, along with historical growth, are key inputs to consumer models. Energy models incorporate data from seven weather stations across Kentucky. The models are based on a Statistically Adjusted End Use ("SAE") framework which incorporates appliance saturations and efficiencies. Appliance saturations are unique for each owner-member and based on the results of

[7] *Id.* at 6.

[8] Joint Intervenors' Post Hearing Brief, p. 28, (May 6, 2025).

EKPC's End Use Survey. Appliance efficiencies are based on the Energy Information Administration's ("EIA") Annual Energy Outlook ("AEO"). There are more than 100 regression models to forecast consumers, energy sales, and seasonal peak demand. These data and models provide a strong foundation for the owner-member and EKPC aggregate forecasts.

EKPC emphasizes the importance of reviewing not just the data inputs but also model results. Results go through a thorough internal review before presenting the details to owner-member staff. Discussions with staff are important due to the possibility of local growth that is not captured at the macroeconomic level. Owner-member staff involved in the review typically include the President/CEO as well as leaders from the finance and engineering departments. This level of stakeholder involvement and transparency is important when finalizing the individual owner-member forecasts and aggregating the EKPC forecast. EKPC also partners with consultants to develop demand side management ("DSM") and electric vehicle ("EV") forecasts.

Upon finalizing the owner-member forecasts, each of the owner-members' Boards of Directors review the results and vote whether to approve the forecast. EKPC's board review and approval is a multistep process. Results are initially presented to and discussed with EKPC's Strategic Issues ("SI") Committee. After the SI Committee has vetted the results, it sends the forecast to the EKPC Board of Directors which also takes the opportunity to scrutinize the forecast. Once the EKPC Board of Directors has finished its review, it votes whether to approve the forecast. The Rural Utility Service ("RUS") has the final review of the LTLF. As stated in RUS's April 3, 2025 approval letter, "The methods and assumptions used are reasonable, and the load forecast was effectively coordinated with all of EKPC's members."[9]

[9] Case No. 2024-00310, Supplemental Response to Joint Intervenors' Post-Hearing Data Request Item 6, (filed April 3, 2025).

EKPC continuously monitors its forecast performance. The first year of the 2024 LTLF is complete and there is sufficient data to analyze performance. The table below summarizes performance metrics for the 2024 LTLF.

- 2024 total consumers are 0.1% more than forecast.
- Weather-normalized total energy requirements are 0.9% less than forecast.
- Weather-normalized and interrupted 2024-25 winter peak demand is 3.2% more than forecast.
- Weather-normalized and interrupted 2024 summer peak demand is 2.1% less than forecast.

	Forecast	Actual	Actual vs. Forecast	Weather Normalized Actual	Weather Normalized Actual vs. Forecast
2024 Total Consumers	574,977	575,587	0.1%		
2024 Total Energy Requirements (MWh)	14,597,314	14,145,882	-3.1%	14,465,718	-0.9%
2024 -25 Winter Peak Demand (MW)	3,517	3,744	6.4%	3,631	3.2%
2024 Summer Peak Demand (MW)	2,450	2,581	5.3%	2,399	-2.1%

EKPC's load forecast has a strong analytic foundation that is thoroughly reviewed, scrutinized, and approved by multiple stakeholders throughout its development, resulting in a forecast that closely aligns with actual results.

It is not accurate to compare a load forecast directly to actual loads without considering weather implications. Load forecasts are developed based on expected weather conditions. When actual load occurs, it is reflective of actual weather conditions at that time. A correct comparison of the load to the forecast would be to model the actual weather and then reforecast load and compare that weather adjusted forecast to actuals. This gives a true comparison of the forecasted load to the expected load. EKPC weather adjusts its load on a regular basis to

compare actual loads to forecast loads. The amount of load that was served but could have been interrupted is also considered and removed from the peak load. Such comparisons demonstrate that EKPC's is not inflating expected peak load as alleged by the Joint Intervenors;[10] but rather, EKPC is conservatively forecasting when looking at the most recent winter peak load.

EKPC has 3,427 MW winter capability to serve its load. That is less than the actual peak loads and weather normalized/interrupted loads for the past three winter season peaks. These are not hypotheticals but the actual real conditions that occurred and are actual operating conditions.

The Joint Intervenors incorrectly compare EKPC's 2024 LTLF with PJM's load forecast. The Joint Intervenors state in their post-hearing brief:

> EKPC's winter load forecast is inconsistent with PJM's recent long-term load forecast for the EKPC Zone. First, the PJM forecast shows much lower winter peak load than EKPC's forecast does. For example, for the winter of 2024-25, EKPC forecasts a peak of 3,517 MW while the PJM forecast shows a 2025 winter peak below 2,800 MW.[11]

The Joint Intervenors totally ignore the fact that EKPC's actual 2024-25 winter peak was higher than both of those forecasts and EKPC needs additional capacity to serve its load.

EKPC simply does not have a history of over forecasting to establish a need and EKPC does not have a history of requesting frivolous financial investments. Load forecasting is a continual process. Every single day EKPC develops a short-term load forecast and bids that load into the PJM day ahead energy market. Every day, EKPC compares how the actual load compares to the forecasted load. When the forecast is off by more than 5%, a detailed explanation is developed to determine if the error was because of weather forecast error, model error, or

[10] *Id.*

[11] *Id*. at 30.

something else. Experience and knowledge gained from this daily process is enveloped into the long-term load expectations. EKPC formally updates its LTLF every two years and was on track to update its LTLF in 2024. The load forecasting personnel at EKPC accelerated their processes and forecast development so the most up-to-date information could be provided in this CPCN filing. EKPC takes very seriously the Joint Intervenors' allegations that the forecast was modified to show something different than what the analytics supported. These allegations are not only insulting, but completely false. EKPC's management has discussed winter peak loads, existing generation coverage of those peak loads, and alternatives to adding generation to cover the additional load for multiple years. EKPC has a history of keeping its Board of Directors informed and engaged. Decisions are not made without much research, discussion and discernment.

EKPC takes its obligation to provide safe, reliable and cost competitive service to its owner-members seriously. The risk of being wrong in its load forecasting is quite daunting. An inability to adequately serve load is very expensive, as well as life threatening. The market prices directly reflect when supply is tight and demand is high (as seen during Winter Storm Elliott) as a well-functioning market should. Moreover, EKPC stands nothing to gain by over-forecasting expected load. Nucor's post-hearing brief points out important points.

> Motive is important. As a not-for-profit electric utility, EKPC has no incentive to invest in unneeded or speculative rate base to grow top-line revenues and bottom-line earnings. Instead, it has the opposite incentive to keep its costs and rates as low as possible while providing reliable and adequate service.[12]

Similarly, the Attorney General stated, "… EKPC['s] plan to serve its native load through 'steel in the ground,' as opposed to simply planning to meet its PJM requirements, is prudent and the

[12] Nucor's Post-Hearing Brief, p. 6.

correct public policy for the Commonwealth."[13] Furthermore, PJM has indicated that it has concerns on the ability to serve its load due to rapidly increasing demand since reliable, dispatchable generation resources are being retired and replaced with unreliable, intermittent resources.[14] Thus, relying on the PJM market today is not the same as it was when EKPC entered the PJM market. In addition, Winter Storm Elliott showed EKPC that it can no longer rely on the PJM market to meet its peak load due to the increased costs associated with those purchases. Without the additional generation that will be supplied by the Cooper CCGT and retaining the current generation with the co-firing projects, EKPC will be forced to purchase additional capacity through market purchases. These market purchases would subject EKPC, and ultimately the end use members, to much higher prices than if EKPC had its own generation. Due to the coal retirements throughout the PJM footprint, EKPC expects the Cooper CCGT and the co-firing projects to be dispatched often.[15] Making the projects an economically sound investment for EKPC. Also, the Commission disallowed market purchases to cover a utility's needs when it does not have sufficient generation of its own.[16] The Commission found that market purchases are not extraordinary and eligible for recovery when the utility could have planned for them.[17] EKPC only requests to build generation when it is necessary to meet its load. EKPC is requesting the proposed projects to cover its actual peak load that has occurred for the past three winter seasons. If any

[13] Attorney General's Post-Hearing Brief, p. 6.

[14] Attorney General's Hearing Exhibit 2.

[15] HVT, April 22, 2025 at 14:23:22.

[16] *Electronic Application of Kentucky Power Company for an Order Approving Accounting Practices to Establish a Regulatory Asset Related to the Extraordinary Fuel Charges Incurred by Kentucky Power Company in Connection with Winter Storm Elliott In December 2022,* Case No. 2023-00145, June 23, 2023 Order (Ky. PSC June 23, 2023).

[17] Case No. 2023-00145, June 23, 2023 Order at 12.

portion of this application is denied for any reason, EKPC will likely be back before the Commission making a nearly identical request, except the cost for the projects will have increased greatly from what is proposed in this proceeding.[18]

B. The Proposed Projects will not Result in Wasteful Duplication.

Construction of the Cooper CCGT and co-firing projects at Cooper Station and Spurlock Station will not result in wasteful duplication.

The Joint Intervenors claim that EKPC picked a solution and then tried to make the evidence fit that solution.[19] Claiming that EKPC failed to conduct a rigorous analysis of the costs associated with the Cooper CCGT and the co-firing projects means EKPC did not show the lack of wasteful duplication.[20] This is simply untrue. EKPC takes its obligation to serve it Owner-Members and ultimately the customers seriously. EKPC has no incentive to invest in unnecessary projects.[21] The projects presented in this proceeding are the least cost, most reasonable projects to meet the growing demand on EKPC's system.

The Joint Intervenors also claim that EKPC did not evaluate battery energy storage systems ("BESS") as an alternative to the generation proposed in this proceeding.[22] Claiming the cost estimates for BESS could be lower than EKPC stated.[23] EKPC relied on information from the National Renewable Cooperative Organization ("NRCO") and National Renewable Energy

[18] *See, Electronic Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates,* Case No. 2025-00045.
[19] Joint Intervenors Post-Hearing Brief at 42-53.

[20] Joint Intervenors Post-Hearing Brief at 43.

[21] Brief of Nucor Steel Gallatin at 6 and Attorney General's Brief at 6-7.

[22] Joint Intervenors Post-Hearing Brief at 53-60.

[23] Joint Intervenors Post-Hearing Brief at 57-58.

Laboratory ("NREL") to prepare estimates on BESS. These are national organizations that are routinely relied upon by utilities for planning. Additionally, batteries are storage, not generation. Without additional generation capacity, there is no excess power to charge the batteries to use during these multi-day winter storm events. Generation must come first before battery storage is even an option.

C. EKPC's Demand Side Management/Energy Efficiency Programs are Reasonable.

The Joint Intervenors agree with EKPC's DSM/EE current programs and the new programs.[24] However, the Joint Intervenors argued EKPC should be required to pursue even more DSM/EE programs to offset load.[25] EKPC presented an extensive selection of DSM/EE programs. These programs must not only be approved by the Commission, but also must be implemented by EKPC's sixteen Owner-Members. The programs EKPC selected in this proceeding are reasonable and offer the potential demand savings EKPC knows are achievable. EKPC does not wish to set unrealistic goals and then have the LTFL be incorrect because it assumes a level of participation that cannot be achieved. EKPC believes the DSM/EE programs it has selected are reasonable and should be approved by the Commission.

VI. CONCLUSION

The Cooper CCGT is needed, will not result in wasteful duplication, and a Site Compatibility Certificate should be granted. The Cooper and Spurlock co-firing projects are needed and will not result in wasteful duplication. EKPC's proposed DSM tariffs are reasonable and are an increased investment for EKPC's DSM program. EKPC has proposed a comprehensive

[24] Direct Testimony of Maria Roumpani at 14 (filed February 14, 2025).

[25] Joint Intervenors Brief at 16-25.

plan to meet its generation needs. EKPC needs all of its proposed generation projects to meet its forecasted load and to continue to provide safe and reliable service to its Owner-Members.

WHEREFORE, on the basis of the foregoing, EKPC respectfully requests the Commission grant the CPCN to allow EKPC to construct the Cooper CCGT, grant the CPCN to co-fire Cooper Unit 2, grant the CPCN to co-fire the Spurlock station, issue a Site Compatibility Certificate, approve DSM tariffs, and provide any other relief to which EKPC may be entitled.

This the 16th day of May 2025.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

This is to certify that the foregoing electronic filing was transmitted to the Commission on May 16, 2025, and that there are no parties that the Commission has excused from participation by electronic means in this proceeding. Pursuant to prior Commission Orders, no paper copies of this filing will be made.

Counsel for East Kentucky Power Cooperative, Inc.