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 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 respectfully states as follows:

I. INTRODUCTION

On November 20, 2024, EKPC submitted an Application that requested three Certificates of Public Convenience and Necessity ("CPCN") to construct an Integrated Combined Cycle Gas Turbine ("CCGT") at Cooper Station, coal to natural gas co-firing at Cooper Station Unit 2 ("co-fire"), coal to natural gas co-firing at Spurlock Station Units 1-4; the issuance of a Site Compatibility Certificate for the CCGT; approval of demand side management ("DSM") tariffs; and, other general relief. The CCGT at Cooper Station will be capable of a net output of 745 megawatts ("MW") with reliable F-Class combustion turbines.

The Cooper CCGT, and the co-firing at Cooper and Spurlock stations, are necessary to provide safe and reliable service to the service areas of EKPC's sixteen (16) Owner-Member distribution cooperatives ("Owner-Members"), provide for EKPC's existing and growing load, plan for the future of the system, and comply with state and federal environmental regulations. EKPC reviewed alternative means to invest in additional generation and the projects presented in this Application are the most reasonable and cost-effective option to meet the long-term needs of EKPC and its Owner-Members. EKPC is a generation and transmission cooperative and is owned by its 16 owner-members. Therefore, EKPC does not have any incentive to build generation that is not needed as this would jeopardize future margins of the cooperative, which would result in less margins for the individual customers to receive capital credits.[1]

II. BACKGROUND

On November 20, 2024, EKPC filed its Application for a CPCN for the construction of a new generation resource, CPCNs for the co-fire projects, a Site Compatibility Certificate, and approval of DSM tariffs.[2] The Commission issued an Order for the processing of the case on December 5, 2024.[3] The Attorney General, by and through the Office of Rate Intervention ("Attorney General"),[4] Nucor Steel Gallatin ("Nucor"),[5] and Appalachian Citizens' Law Center, Mountain Association and Kentuckians for the Commonwealth (together as "Joint Intervenors"),[6]

[1] HVT April 21, 2025 9:38:00-9:40:00.

[2] Application (filed Nov. 20, 2024).

[3] Case No. 2024-00310, December 5, 2024 Order.

[4] Motion to Intervene (filed December 3, 2024).

[5] Nucor Steel Gallatin Motion to Intervene (filed November 22, 2024).

[6] Joint Motion of Appalachian Citizens' Law Center, Kentuckians for the Commonwealth, and Mountain Association for Full Intervention as Joint Intervenors (filed December 13, 2024).

requested intervention. The Commission granted all requests for intervention.[7] EKPC responded to five requests for information from Commission Staff and two requests for information from the intervening parties.[8] EKPC supplemented multiple requests for information throughout the proceeding based on informal requests from the Joint Intervenors.[9] The Joint Intervenors filed Direct Testimony of two witnesses.[10] The Joint Intervenors responded to requests for intervention.[11] EKPC provided rebuttal testimony.[12]

On February 12, 2025, the Commission issued an order incorporating the record of Case No. 2024-00310.[13] The Joint Intervenors filed a Motion to Amend the Procedural Schedule because the Commission incorporated the record of Case No. 2024-00310 into this proceeding and

[7] December 11, 2024 Order (Nucor); December 6, 2024 Order (Attorney General); and, January 6 2025 (Joint Intervenor).

[8] East Kentucky Power Cooperative, Inc.'s Response to Commission Staff's First Request for Information (filed January 3, 2025)("Staff's First Request"); East Kentucky Power Cooperative, Inc's Response to the Attorney General's First Request for information (filed January 3, 2025)("AG's First Request"); East Kentucky Power Cooperative, Inc's Response to Nucor's First Request for Information (filed January 3, 2025)("Nucor's First Request"); East Kentucky Power Cooperative, Inc.'s Response to the Joint Intervenors' First Request for Information (filed January 10, 2025)("Joint Intervenors' First Request"); East Kentucky's Response to Commission Staff's Second Request for Information (filed January 31, 2025)("Staff's Second Request"); Responses to Joint Intervenors' Second Request for Information (filed January 31, 2025)("Joint Intervenors' Second Request"); Responses to the Attorney General's Second Request for Information (filed January 31, 2025)("AG's Second Request"); Responses to Commission Staff's Third Request for Information (filed March 7, 2025)("Staff's Third Request"); EKPC's Responses to Staff's Fourth Request for Information (filed March 18, 2025)(Staff's Fourth Request"); and, EKPC's Response to Commission Staff's First Request for Information (filed March 26, 2025)("Staff's Fifth Request").

[9] Supplemental Responses to Joint Intervenors Second Request for Information (filed February 11, 2025); Supplemental Response to JI DR 1-4 (filed February 13, 2025); Supplemental Responses to Joint Intervenors First Request for Information (filed February 19, 2025); and Updated Response to Joint Intervenors First Request (filed April 24, 2025).

[10] Direct Testimony on Behalf of Joint Intervenors (filed February 14, 2025) and Revised Direct Testimony on Behalf of Joint Intervenors Appalachian Citizens' Law Center, Kentuckians for the Commonwealth, and Mountain Association (filed February 20, 2025).

[11] Responses of Joint Intervenors to East Kentucky Power Cooperative's First Request for Information (filed March 17, 2025) and Responses of Joint Intervenors to Commission Staff's First Request for Information (filed March 17 2025).

[12] EKPC's Rebuttal Testimony (filed March 31, 2025).

[13] February 12, 2025 Order (Ky. PSC February 12, 2025).

claimed a need to review those case filings.[14] The Commission denied the motion to amend the schedule because the Joint Intervenors are a party to the proceedings in Case No. 2024-00310; however, the Commission did allow additional time for the Joint Intervenors to filed additional testimony.[15] The Joint Intervenors subsequently declined to file additional testimony.[16]

On April 21-22, 2025, the Commission held a formal hearing.[17] EKPC presented twelve witnesses for cross-examination at the hearing. The Joint Intervenors presented two witnesses for cross-examination. Subsequent to the hearing, the Commission established a post-hearing procedural schedule.[18] Post-hearing requests for information were filed and EKPC filed its responses to the requests on May 2, 2025.[19]

III. CPCN LEGAL STANDARD

Kentucky's highest Court articulated a two-part test for determining whether a CPCN is appropriate: (1) need and (2) absence of wasteful duplication. In *Kentucky Utilities Co. v. Public Service Comm'n,* the Court wrote:

> We think it is obvious that the establishment of convenience and necessity for a new service system or a new service facility requires first a showing of a substantial inadequacy or existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed and operated. Second, the inadequacy must be due either to a substantial deficiency of service facilities, beyond what

[14] Motion of Joint Intervenors to Amend Procedural Schedule (filed February 13, 2025).

[15] February 17, 2025 Order (Ky. PSC February 17, 2025).

[16] Notice of Inability to Provide Supplemental Testimony (filed February 20, 2025).

[17] Hearing Video Transcript ("HVT") of the April 21-22, 2025 Formal Hearing.

[18] April 24, 2025 Order.

[19] EKPC Responses to Joint Intervenors' Post-Hearing Data Requests (filed May 2, 2025)("Joint Intervenors' Post-Hearing Requests"); EKPC's Responses to Nucor's Post-Hearing Data Request (filed May 2, 2025)("Nucor's Post-Hearing Requests"); and, EKPC Responses to Commission Staff's Post-Hearing Data Request (filed May 2, 2025)("Staff's Post-Hearing Requests")..

> could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.[20]

The Court went on to say with regards to wasteful duplication that:

> [W]e think that 'duplication' also embraces the meaning of an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties, such as right of ways, poles and wires. An inadequacy of service might be such as to require construction of an additional facility to supplement an inadequate existing facility, yet the public interest would be better serviced by substituting one large facility, adequate to serve all the consumers, in place of the inadequate existing facility, rather than constructing a new small facility to supplement the existing small facility. A supplementary small facility might be constructed that would not create duplication from the standpoint of an excess of capacity, but would result in duplication from the standpoint of an excessive investment in relation to efficiency and a multiplicity of physical properties.[21]

Even though the avoidance of wasteful duplication is one of the primary factors for consideration of a CPCN application, *Kentucky Utilities Co.* makes clear that the Commission must not focus only on the cost of the proposal but must also look at the application for a CPCN in relation to the service the utility is going to provide. The Court stated:

> [W]e do not mean to say the *cost* (as embraced in the question of duplication) is to be given more consideration than the need for *service*. If, from the past record of an existing utility, it should appear that the utility cannot or will not provide adequate service, we think it might be proper to permit some duplication to take place, and some economic loss to be suffered so long as the duplication and resulting loss be not greatly out of proportion to the need for service.[22]

[20] *Kentucky Utilities Co. v. Pub. Serv. Comm'n,* 252 S.W. 2d 885, 890 (Ky. 1952).

[21] *Id.*at 891.

[22] *Id.* at 892 (emphasis in original).

The complete absence of wasteful duplication is not necessary, "it is sufficient that there is a reasonable basis of anticipation" that the "consumer market in the immediate foreseeable future will be sufficiently large to make it economically feasible for a proposed system or facility to be constructed...."[23] The Commission consistently follows and cites the *Kentucky Utilities Co.* decision when evaluating requests for CPCNs.[24]

IV. SITE COMPATABILITY CERTIFICATE LEGAL STANDARD

KRS 278.216 governs the Commission's review of an application for a site compatibility certificate. KRS 278.216 states as follows:

> (1) Except for a utility as defined under KRS 278.010(9) that has been granted a certificate of public convenience and necessity prior to April 15, 2002, no utility shall begin the construction of a facility for the generation of electricity capable of generating in aggregate more than ten megawatts (10MW) without having first obtained a site compatibility certificate from the commission.
>
> (2) An application for a site compatibility certificate shall include the submission of a site assessment report as prescribed in KRS 278.708(3) and (4), except that a utility which proposes to construct a facility on a site that already contains facilities capable of generating ten megawatts (10MW) or more of electricity shall not be required to comply with setback requirements established pursuant to KRS 278.704(3). A utility may submit and the

[23] *Kentucky Utilities Co. v. Public Service Comm'n,* 390 S.W. 2d 168, 172 (Ky. 1965).

[24] *See In re the Application of Big Rivers Electric Corporation for Approval of its 2012 Environmental Compliance Plan,* Case No. 2012-00063, Order, pp. 14-15 (Ky. P.S.C. Oct. 1, 2012) ("To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a thorough review of all alternatives has been performed. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant facts must be balanced.") (citations omitted). *See also, In the Matter of: Electronic Application of the Harrison County Water Association, Inc. Request for a Certificate of Public Convenience and Necessity, Pursuant to KRS 278.020, or Alternatively a Declaratory Order Establishing that a Certificate of Public Convenience is Not Necessary, Pursuant to KRS 278.020 and 807 KAR 5:001 (15 and/or 19),* Case No. 2023-00006, Order p. 2 (Ky. P.S.C. Feb. 3, 2023); *In the Matter of: Electronic Application of Delta Natural Gas Company, Inc. For a Certificate of Public Convenience and Necessity to Construct a Pipeline in Lincoln and Rockcastle Counties, Kentucky,* Case No. 2022-00295, Order, p. 2 (Ky. P.S.C. Dec. 13, 2022); *In the Matter of Electronic Application of Duke Energy Kentucky, Inc., for a Certificate of Public Convenience and Necessity to Close its East Landfill at the East Bend Generating Station and for Approval to Amend its Environmental Compliance Plan for Recovery by Environmental Surcharge Mechanism,* Case No. 2021-00290, Order, p. 3, (Ky. P.S.C. March 4, 2022); *In the Matter of: Electronic Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Hardin County, Kentucky,* Case No. 2022-00066, Order pp. 18-19 (Ky. P.S.C. July 28, 2022).

> commission may accept documentation of compliance with the National Environmental Policy Act (NEPA) rather than a site assessment report.
>
> (3) The commission may deny an application filed pursuant to, and in compliance with, this section. The commission may require reasonable mitigation of impacts disclosed in the site assessment report including planting trees, changing outside lighting, erecting noise barriers, and suppressing fugitive dust, but the commission shall, in no event, order relocation of the facility.
>
> (4) The commission may also grant a deviation from any applicable setback requirements on a finding that the proposed facility is designed and located to meet the goals of this section and KRS 224.10-280, 278.010, 278.212, 278.214, 278.218, and 278.700 to 278.716 at a distance closer than those provided by the applicable setback requirements.
>
> (5) Nothing contained in this section shall be construed to limit a utility's exemption provided under KRS 100.324.
>
> (6) Unless specifically stated otherwise, for the purposes of this section, "utility" has the same meaning as in KRS 278.010(3)(a) or (9).

Pursuant to this statute, the Commission requires a utility seeking a site compatibility certificate to either submit a site assessment report ("SAR") or show that it is in compliance with the National Environmental Policy Act ("NEPA"). In this proceeding, EKPC provided both a SAR, containing all of the required information,[25] and its notice of availability of an environmental assessment issued by RUS pursuant to NEPA.[26]

The fact that KRS 278.216 requires a utility to file a SAR, including the information required for a merchant generator applying for a Certificate of Construction through the Siting Board, indicates that the legislature intended for the Commission to consider the factors contained

[25] Application, Exhibit 4, Attachments BY-1, Volume 1 and Volume 2.

[26] EKPC's Supplemental Response to Joint Intervenors Third Request, Item 9.

within the SAR when making a determination to issue a site compatibility certificate.[27] However, the fact that KRS 278.216(2) allows the utility to submit compliance with NEPA provides the Commission with alternative criteria to review when ensuring a utility has done its due diligence in regards to site selection. The Commission does not have the statutory authority to consider the best use of the land as property rights are inherently constitutional in nature,[28] and the General Assembly has not abrogated the fundamental rights of landowners.

V. ARGUMENT

A. The Cooper CCGT Facility and the Co-Firing Projects Are Needed

The Commission expressed the desire for utilities to have sufficient "steel in the ground" to adequately serve their native load and not rely on any market to serve its forecasted energy and capacity needs.[29] The Cooper CCGT is needed to improve the reliability and resiliency of EKPC's system.[30] Currently, EKPC's system relies heavily upon the Cooper Station to support the grid in this region of the Commonwealth which is in the southern portion of EKPC's service territory.[31] The Cooper CCGT is needed to serve the existing and growing demand in EKPC's service territory which was demonstrated in EKPC's 2020 Long Term Load Forecast ("2020 LTLF"), its 2022

[27] *Electronic Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for a Site Compatibility Certificate for the Construction of a Solar Facility in Mercer County, Kentucky*, Case No. 2023-00361, Order p. 23 (Ky. P.S.C. July 12, 2024).

[28] KY Const. § 13 and §242; U.S. Const., amend. V and XIV.

[29] *See*, Case No. 2014-00226, An Examination of the Application of the Fuel Adjustment Clause of East Kentucky Power Cooperative, Inc. from November 1, 2013, through April 30, 2014, January 30, 2015, Order (Ky. P.S.C., January 30, 2015); Case No. 2022-00402, Electronic Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates and Approval of Demand Side Management Plan and Approval of Fossil Fuel-Fired Generating Unit Retirement, Order at 95 (Ky. P.S.C., November 6, 2023); and Case No. 2023-00153, Electronic Tariff Filing of East Kentucky Power Cooperative, Inc. and its Member Distribution Cooperatives for Approval of Proposed Changes to Their Qualified Cogeneration and Small Power Production Facilities Tariffs, Order at 10 (Ky. P.S.C. October 21, 2023).

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

[31] Application Exhibit 4 Direct Testimony Brad Young p. 8, (Nov. 20, 2024) ("Young Direct Testimony").

Integrated Resource Plan ("2022 IRP"), its 2022 Long Term Load Forecast ("2022 LTLF"), and its 2024 Long-Term Load Forecast ("2024 LTLF").[32] The Cooper CCGT will have a beneficial impact on economic development by allowing EKPC to reduce its carbon intensity which is used by economic development projects to score different project sites.[33] In addition, the Cooper CCGT facility is needed to meet the growing demand in PJM's system and the significant base load generation retirements within the PJM system.[34] EKPC had consecutive winters with extremely cold temperatures which set new winter peaks.[35] In December 2022, Winter Storm Elliott set a new winter peak of 3,747 MW on December 23, 2022 which was a holiday for many businesses.[36] Had Winter Storm Elliott occurred when businesses were not closed, EKPC's winter peak would have been even higher than what was seen. On January 17, 2024, Winter Storm Gerri set EKPC's new winter peak at 3,754 MW.[37] Winter storm Enzo occurred in January 2025, with a system peak of 3,744 MW.[38] This peak was within 10 MW of EKPC's all-time peak load and occurred while EKPC's largest customer had a breaker failure and whose load was greatly reduced.[39] If that customer had not experienced the equipment failure, EKPC's load would have been more than 100 MW greater.[40]

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[32] Application Exhibit 3 Direct Testimony Julia J. Tucker, pp. 12-13, (Nov. 20, 2024) ("Tucker Direct Testimony"); *see also,* Tucker Direct Testimony Attachment JJT-3.

[33] Mosier Direct Testimony, pp. 8, 14, 16 and 20.

[34] Tucker Direct Testimony, p. 8.

[35] Mosier Direct Testimony, p. 5.

[36] *Id.*

[37] *Id.*

[38] Rebuttal Testimony Julia J. Tucker, pp. 4-5, (Mar. 31, 2025). ("Tucker Rebuttal Testimony").

[39] *Id.*

[40] *Id.*

1. ***EKPC's 2022 Integrated Resource Plan Supports the Need for Additional Generation Capacity***

EKPC filed its 2022 Integrated Resource Plan ("2022 IRP")[41] on April 1, 2022. EKPC's 2022 IRP was based on its 2020 Long-Term Load Forecast ("2020 LTLF"). The 2020 LTLF analyzed EKPC's forecasted load, capacity needs, and related issues over a fifteen-year period from 2022 through 2036.[42] Based on the 2022 IRP, EKPC's total energy requirement was expected to increase by 1.1% per year over that fifteen-year period, with the winter net peak demand increasing 0.6% annually, its summer net peak demand increasing by 0.8% annually, and its annual load factor increasing from 50% to 54%.[43] EKPC continuously compares its forecasted load profile to its resource portfolio and considers what is the best strategy to manage its energy market price exposure and its future load needs.[44] This has to be balanced with the obligation to provide reliable power supply during extreme conditions.[45] As stated above, the 2022 IRP was based upon the 2020 LTLF which was already showing a need for generation for EKPC to adequately serve its load. This 2020 LTLF and the 2022 IRP both were completed prior to December 2022 which produced Winter Storm Elliott which "rocked our (EKPC's) world."[46] Since the 2022 IRP, EKPC prepared the 2022 LTLF and the 2024 LTLF. The Application in this proceeding was based upon the 2024 LTLF.[47]

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[41] *Electronic Integrated Resource Plan of East Kentucky Power Cooperative, Inc.,* Case No. 2022-00098, (April 1, 2022).

[42] Tucker Direct Testimony, p.7.

[43] *Id* at 7-8.

[44] *Id.* at 8.

[45] Id.

[46] HVT April 21, 2025 at 9:38:20.

[47] Application, p. 7.

2. ***EKPC's 2024 Long-Term Load Forecast Demonstrates the Need for the Cooper CCGT***

EKPC's 2024 LTLF, upon which this is Application is based, supports the need for the Cooper CCGT. The 2024 LTLF shows that residential sales are forecasted to grow at a compound annual growth rate of 1.0%; small commercial sales are forecasted to grow at a compound annual growth rate of 0.2%; and large commercial at 1.5% over the forecasted period from 2025-2039.[48] As an added component of the 2024 LTLF, EKPC partnered with a consultant to forecast electric vehicle ("EV") growth and energy requirements.[49] Based on the information reviewed and incorporated into EKPC's 2024 LTLF, total energy requirements, winter peak demand, and summer peak demand including EV projections are forecast to grow at compound annual growth rates of 1.4%, 0.9%, and 1.2%.[50]

EKPC's winter peak forecast is higher in the 2024 LTLF than in both the 2020 LTLF and the 2022 LTLF.[51] Recent winter storms experienced by EKPC in each of the past three years have set new winter peaks for EKPC. The peak experienced in December 2022 during Winter Storm Elliott is attributed to an extreme weather event with unprecedented wind-chill ratings; meaning that, once it was weather normalized, the peak was in-line with forecasted expectations.[52] However, the peak experienced in January 2024 for Winter Storm Gerri, which was EKPC's all-time peak, did not occur during an extreme weather event.[53] Therefore, EKPC was under

[48] Tucker Direct Testimony, p. 11.

[49] *Id.*

[50] *Id.*

[51] *Id.* at 12.

[52] *Id.*

[53] *Id.*

projecting its winter peak.[54] Additional factors impacting the 2024 LTLF, making it greater than the 2020 LTLF are updated assumptions related to peak load weather, industrial load growth, and EV assumptions.[55] Winter peak loads are up from the 2022 LTLF to the 2024 LTLF 227 MW in the 2025/2026 winter period and up by 199 MW net over the previous load forecast in the 2038/2039 winter period.[56]

For capacity planning purposes, EKPC adds a 7% Capacity Planning Reserve Margin ("Reserve Margin") to the load forecast.[57] As explained by Julia J. Tucker at the hearing in this matter, prior to joining PJM, EKPC was its own balancing authority and used a 12% Reserve Margin for planning purposes.[58] After joining PJM in 2013, EKPC believed that it could rely on the PJM market instead of using a Reserve Margin; so, the winter peak Reserve Margin contained in the 2022 Integrated Resource Plan was 0%.[59] The increase in the Reserve Margin was driven by two risks associated with winter peaks: 1) higher than anticipated demand driven by extreme cold weather events and 2) generator outage probability.[60] Since EKPC is a winter-peaking system it is both necessary and reasonable for EKPC to plan for a generation portfolio to meet expected forecasts and to account for the unknown risks.[61] EKPC quantified these risks by analyzing the 1 in 10 probability of extreme weather events and spreading that risk over the planning horizon, with

[54] *Id*.

[55] *Id.*

[56] *Id.* at 13.

[57] *Id.*

[58] HVT, April 22, 2025 at 13:53:01.

[59] HVT; April 22, 2025 at 14:11:25 and Tucker Direct Testimony p. 14.

[60] Tucker Direct Testimony, p. 14.

[61] *Id.*

an extreme weather event occurring every two years for a 48-hour period within each of those two-year periods.[62] This forecasting for the 48-hour period of an extreme weather event is consistent with the actual events EKPC experienced with Winter Storm Elliott and Winter Storm Gerri, which both were multi-day cold weather events, driving load saturation from residential consumption.[63] EKPC believes the 7% Reserve Margin is a reasonable Reserve Margin to allow EKPC to serve its Owner-Members' loads.[64] The summer peak Reserve Margin increased from 3% in the 2022 IRP to 7% in the current filing.[65] This increase in the summer Reserve Margin is necessary to allow EKPC to hedge from potentially volatile PJM capacity market prices.[66] The Commission consistently states that it has no desire for regulated utilities in Kentucky to rely on wholesale energy markets for capacity and energy.[67]

EKPC's forecasted capacity needs are based upon EKPC's Capacity Expansion Plan ("Expansion Plan").[68] The Expansion Plan indicates that EKPC has an expected shortfall of 200 MW of capacity beginning in the 2026/2027 winter period as compared to its forecasted winter

[62] *Id.*

[63] *Id.*

[64] HVT, April 22, 2025 at 13:54:00.

[65] Tucker Direct Testimony, p. 15.

[66] HVT, April 22, 2025 at 13:55:20.

[67] Case No. 2014-00226, *In the Matter of an Examination of the Application of the Fuel Adjustment Clause of East Kentucky Power Cooperative, Inc. from November 1, 2013 Through April 30, 2014* (Ky. PSC Order filed Jan., 30, 2015); Case No. 2022-00402, *In the Matter of the Electronic Joint Application of Kentucky Utilities Company and Louisville Gas And Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates and Approval of a Demand Side Management Plan and Approval of Fossil Fuel-Fired Generating Unit Retirements* (Ky. PSC Order filed Nov. 6, 2023); Case No. 2023-00153, *In the Matter of the Electronic Tariff Filing of East Kentucky Power Cooperative, Inc. and its Member Distribution Cooperative For Approval of Proposed Changes to their Qualified Cogeneration and Small Power Production Facilities Tariffs* (Ky. PSC Order filed Oct. 31, 2023).

[68] Tucker Direct Testimony, Attachment JJT-3.

peak and 454 MW as compared to its forecasted winter peak plus Reserve Margin.[69] The Expansion Plan also supports additional generation assets to meet EKPC's capacity needs.[70]

3. The Co-Firing Projects Will Allow EKPC to Continue Operating its Current Generation Fleet and Negate the Need for Additional Generation to Replace its Largest Generating Station.

EKPC proposes to co-fire its coal fired generation at Spurlock Station (Units 1-4) and Cooper Station (Unit 2). Kentucky legislation placed an emphasis on coal fired generation and Kentucky mined coal.[71] Spurlock Station Units 1-4 is 1,340 MW.[72] Cooper Unit 2 is225 MW.[73] The coal supplied to Cooper Station is 100% mined in Kentucky.[74] Due to the Green House Gas Rule ("GHG"), in order to keep the generation at Spurlock and Cooper Stations, EKPC must co-fire the units at least 40%.[75] This has to be complete prior to 2031 or coal units will have to be retired if the GHG stays in effect[76] and will allow EKPC to continue running these units until 2038.[77] Co-firing Spurlock Units 1-4 and Cooper Unit 2 will avoid substantial stranded costs being imposed upon EKPC's Owner-Members.[78]

[69] Tucker Direct Testimony, pp. 15-16.

[70] *Id*. at. 16; *see also,* Tucker Direct Testimony, Attachment JJT-3.

[71] HVT April 21, 2025 9:14:00-9:16:00.

[72] Application, Exhibit 5, Direct Testimony of Craig Johnson at 3. ("Johnson Direct Testimony")

[73] *Id.*

[74] HVT April 21, 2025 11:25:30-11:26:30.

[75] Application Exhibit 7, Direct Testimony of Jerry Purvis pp. 10, 13 and 15. ("Purvis Direct Testimony").

[76] HVT April 21, 2025 15:02:00-15:05:00.

[77] Purvis Direct Testimony, p. 10; HVT April 21, 2025 11:21:00-11:22:00.

[78] Mosier Direct Testimony, p. 14.

Cooper Unit 2 will have burner and igniter upgrades to include fuel gas firing capabilities up to 100% of the required heat-input, while maintaining its current coal capabilities.[79] Cooper Unit 2 meets all other environmental restrictions currently and provides reliable energy.[80] The natural gas pipeline that EKPC is proposing to contract with TC Energy to construct will service both the Cooper CCGT and the co-firing of Cooper Unit 2.[81] Therefore, Cooper Unit 2 can continue after 2038 because it will be able to run 100% on natural gas or 100% on coal.[82] The Cooper Unit 2 co-firing project will retain EKPC's existing capacity associated with that unit.[83] Co-firing Cooper Station will also save on fuel costs since the coal used at Cooper Station has to be trucked in due to its geographic location.[84] If EKPC is not granted the authority to co-fire Cooper Unit 2, it will be required to add more generation that will be more expensive than the current proposed projects.[85]

Spurlock Station Units 1-4 are a little different that the Cooper Unit 2. Spurlock Units 1-4 will be co-fired in a matter similar to that proposed for Cooper Unit 2; however, each of the four Spurlock units will be capable of burning up to 50% of fuel gas.[86] Co-firing Spurlock Units 1-4 will retain EKPC's capacity associated with those units, which is 1,340 MW.[87] EKPC proposes

[79] Application, pp. 5-6.

[80] Tucker Direst Testimony, p. 27.

[81] *Id.*

[82] HVT April 21, 2025 9:32:00-9:33:00.

[83] Application p. 6.

[84] HVT April 21, 2025 11:22:00-11:23:00.

[85] Tucker Direct Testimony, p. 28.

[86] Application p. 6.

[87] Application p. 6.

to co-fire Spurlock Units 1-4 to continue to use its largest plant which currently meets all other environmental regulations.[88] Spurlock Station represents almost half of EKPC's current generation.[89] If EKPC is not granted the authority to co-fire Spurlock Units 1-4, it will be a tremendous burden on EKPC's owner-members to replace all of that generation capacity.[90] All of EKPC's current generation capacity is needed, plus all of the projects contained in EKPC's comprehensive plan, in order to reliably serve its load.[91]

4. The Proposed Projects Are Needed to Comply with Environmental Regulations.

Electric utilities are among the most heavily environmentally regulated companies in the United States. Authorities at the federal and state levels oversee nearly every aspect of EKPC's operations, with particular emphasis on the monitoring and abatement of the waste and by-products that accompany coal-fired electric generation. EKPC devoted, and continues to devote, substantial resources to ensure its proactive compliance with environmental requirements. The CCGT and co-firing of Cooper and Spurlock will assist EKPC in complying with environmental rules and regulations. EKPC is taking steps to comply with both the Good Neighbor Plan ("GNP") and the Green House Gas Rule ("GHG") since EPA and the court system could decide any day to remand, rescind, vacate, or reinstate the rules.[92] EKPC cannot wait to see how the litigation on the rules turns out since it would take EKPC 5-7 years to perform, implement, build, and commission a new generation resource or to build new environmental controls.[93] A prudent electric utility must vet

[88] Tucker Direct Testimony, p. 32.

[89] *Id.*

[90] *Id.*

[91] Tucker Direct Testimony, Attachment JJT-4.

[92] Purvis Direct Testimony, p. 9.

[93] *Id*.

options and be ready to comply with workable, doable, practicable, executable, economic plans to remain reliable, available, and affordable to its owner-member distribution cooperatives.[94] If ultimately, the EPA does not change the "Good neighbor" FIP ("GNFIP") or GHG rule, EKPC could have little warning to comply with the regulations by the date ordered.[95]

The GHG is final and it allows operators of existing coal-fired power plants to elect by January 1, 2030 to choose between a "do nothing" option or to retire the unit by January 1, 2032.[96] For coal units that prefer to operate longer, they have the option to select "medium-term" that allows existing coal fired operators to elect to "co-fire coal" with 40% natural gas between January 1, 2032, until one day before January 1, 2039.[97] EKPC elected to comply with the GHG for Cooper Station by co-firing Cooper Unit 2 on January 1, 2030 and to construct the new CCGT for Cooper Station.[98] The rules will apply to the CCGT as "new sources" and to Cooper and Spurlock as "existing sources".[99] For the existing coal fired units at Cooper 2 and Spurlock 1-4, EKPC plans to comply with the new rule by electing the medium-term option on January 1, 2030 to co-fire coal with 40% natural gas from 2032 through 2039.[100] Both the Cooper and Spurlock co-fire projects support compliance with EPA's GHG Rule as medium-term units from 2032 to 2039 and will fold into the state plan tentatively due May 2025.[101]

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[94] *Id.*

[95] *Id.*

[96] *Id*. at 10.

[97] *Id.*

[98] *Id.*

[99] *Id.*

[100] *Id.*

[101] Id. at 12 and 15.

5. PJM's ELCC Paradigm Reduces Generating Capacity and Creates Additional Need

PJM recently changed its capacity accreditation methodology to Effective Load Carrying Capability ("ELCC ") from Equivalent Forced Outage Rate Demand ("EFORD") effective with the 2025/2026 Base Residual Auction ("BRA").[102] The result of this change is an overall reduction in the capacity available from all generators to sell into the PJM capacity market and it reduced EKPC's accredited capacity to sell into PJM by 14% on average for the 2025/2026 BRA.[103] EKPC's summer peak represents a financial risk should EKPC not carry enough available capacity to offset its required load obligation purchase from the PJM capacity market.[104] EKPC cannot ignore the risk of ELCC even though it is likely that the winter capacity needs will continue to drive capacity resource expansion.[105] Therefore, EKPC increased its summer planning reserves from 3% in the 2022 IRP to 7 percent. .[106] The revised Reserve Margin utilized in this analysis helps to further EKPC's efforts to reliably serve its Owner-Members with competitively priced energy and maintain sufficient capacity to effectively hedge its native load during extreme weather events while complying with the Commission's repeated desire for regulated utilities in Kentucky to not rely on wholesale energy markets for capacity and energy.[107]

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[102] Tucker Direct Testimony, p. 15.

[103] *Id.*

[104] *Id.*

[105] *Id.* at 15-16.

[106] *Id.* at 13.

[107] *Id. at 14-15; See also,* Case No. 2014-00226, *In the Matter of an Examination of the Application of the Fuel Adjustment Clause of East Kentucky Power Cooperative, Inc. from November 1, 2013 Through April 30, 2014* (Ky. PSC Order filed Jan., 30, 2015); Case No. 2022-00402, *In the Matter of the Electronic Joint Application of Kentucky Utilities Company and Louisville Gas And Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates and Approval of a Demand Side Management Plan and Approval of Fossil Fuel-Fired Generating Unit Retirements* (Ky. PSC Order filed Nov. 6, 2023); Case No. 2023-00153, *In the Matter of the Electronic Tariff Filing of East Kentucky Power Cooperative, Inc. and its Member Distribution Cooperatives For*

PJM uses an ELCC for the CCGT of seventy nine percent (79%) in the 2029/2030 delivery year.[108] The PJM ELCC is only impactful to EKPC's summer capacity portfolio which is based solely on the summer peak load obligation as calculated by PJM and the winter peak load forecast is not impacted by ELCC.[109] Therefore, it would not be accurate for EKPC to calculate its capacity positions using ELCC adjusted winter capacity ratings of existing generation units plus any additions because the ELCC adjusted generation capacity as calculated by PJM is impactful only to EKPC's capacity market sales.[110] EKPC's capacity purchase obligation from the PJM capacity market is based on the summer peak load obligation.[111] EKPC is a winter-peaking utility so planning for ELCC-adjusted summer generation capacity value compared against a winter peak load forecast is not reasonable.[112] If EKPC were to use ELCC-adjusted winter generation capacity, it would grossly understate its capacity values compared to their actual installed capacity, which in turn would drive EKPC's Owner-Members to invest in a greater amount of capacity that is needed to meet the native load plus Reserve Margin.[113] EKPC must seek a proper balance between the overall cost to its Owner-Members and planning to meet its winter peak load plus Reserve Margin to ensure reliability and maintaining a prudent economic hedge against market energy prices.[114]

Approval of Proposed Changes to their Qualified Cogeneration and Small Power Production Facilities Tariffs (Ky. PSC Order filed Oct. 31, 2023).

[108] Staff's First Request, Item 15.

[109] Staff's First Request, Item 12.

[110] Staff's Fourth Request, Item 3.

[111] Staff's Fourth Request, Item 5.

[112] *Id*.

[113] Staff's Second Request, Item 9.

[114] *Id.*

6. EKPC Cannot Solely Rely on Market Purchases

The Commission instructs that utilities should have sufficient "steel in the ground" to meet its load.[115] EKPC believes this is a prudent standard set by the Commission especially given the PJM constraints.[116] EKPC joined PJM in 2013 and, at that time, EKPC thought that relying on market purchases for additional generation capacity would be a prudent decision.[117] However, EKPC determined quickly that was not a viable option.[118] In 2015, EKPC added Blue Grass Station to its portfolio to help to alleviate the need to depend as much on market purchases.[119] More recently, with Winter Storm Elliott, EKPC saw the risk of relying on market purchases again.[120] The market is tightening significantly at a time when load is expected to substantially increase and winter risk is increasing in the PJM region and PJM's CEO Manu Asthana expressed his concerns at a recent Organization of PJM State Inc., Annual Meeting.[121] Both PJM and the North American Electric Reliability Corporation ("NERC") provided insights related to the PJM region confirming the riskiness of leaning on the market.[122] PJM's 2025/26 Base Residual Auction sent a strong signal that the supply-demand balance is tightening in the PJM region.[123] After the

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[115] *See,* FN 107.

[116] HVT April 22, 2025 13:55:00-1:56:00.

[117] HVT April 22, 2025 13:49:00-13:51:00.

[118] *Id., See also,* Tucker Rebuttal Testimony, p. 13.

[119] HVT April 22, 2025 13:51:00-13:53:00.

[120] *Id.*

[121] Mosier Direct Testimony, p. 10*; see also,* HVT April 21, 2025 9:34:45 – 9:36:20.

[122] Staff's First Request, Item 3.

[123] HVT April 22, 2025 13:49:00 – 13:51:00.

auction, PJM indicated that investment is needed.[124] After releasing the 2025 load forecast report, revealing a substantial increase in expected future load in the PJM region, PJM indicated that the PJM system could see a capacity shortage as soon as the 2026/27 Delivery Year.[125] PJM indicated in a filing before the Federal Energy Regulatory Commission that now is the time for investment.[126] Additionally, in December 2024, NERC issued its 2024 Long-Term Reliability Assessment; and, for the first time, NERC designated the PJM region as a region with "Elevated Risk," meaning the region meets resource adequacy criteria, but analysis indicates that extreme weather conditions are likely to cause a shortfall in reserves.[127] EKPC provided charts to show the NERC results in response to Commission Staff's Fourth Requests, Item 2.

Although EKPC previously relied on market purchases for additional needed generation, relying on availability of long-term power purchases introduces more risk into the power supply portfolio than when excess generation was readily available within the PJM system.[128] The economic analysis shows the benefits of EKPC's proposed new generation resources as compared to the PJM market because it would be unreasonable to assume that someone would sell their capacity and energy below the expected market price. The market comparison demonstrates the economic value of constructing the new generators as opposed to relying on power purchases.[129] Therefore, the Cooper CCGT is more economic compared to the expected PJM market prices.[130]

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[124] Mosier Direct Testimony, p. 10.

[125] Staff's Fourth Request, Item 6.

[126] *Id.*

[127] Staff's First Request, Item 3.

[128] Tucker Rebuttal Testimony,, pp. 12-13.

[129] *Id.*

[130] Staff's Fourth Request, Item 6 Attachment, *DR4-6.xlxs.*

7. The Proposed Projects Will Provide Multiple Benefits for EKPC and Its Owner-Members.

EKPC demonstrated throughout this proceeding that the Cooper CCGT and the co-firing projects at Cooper Station and Spurlock Station are needed and will provide multiple benefits for34KPC and its Owner-Members. As discussed at the hearing, EKPC is a cooperative and does not have an incentive to build extra base rate.[131] EKPC is proposing the projects in this application to maintain its current capacity by co-firing Cooper Unit 2 and Spurlock Units 1-4 and to also add needed generation with the CCGT. EKPC's Board consists of representatives of each of the sixteen owner-members and they were advised about the CCGT for years.[132] Each of the proposed projects will provide benefits to EKPC and its Owner-Members.

The CCGT will provide needed voltage support in the southern Kentucky region of EKPC's system.[133] It will also have a high ELCC capacity rating which will provide a summer capacity hedge.[134] The Cooper CCGT will be a state of the art facility with a 6500 heat rate that will provide low cost energy, while providing an annual energy hedge.[135] The fuel savings provided will run through the Fuel Adjustment Clause.[136] There will be seventy-two hours of backup fuel storage which will add reliability and a higher ELCC.[137] The construction of the CCGT will be a 2x1 combined cycle that will allow one turbine to run the facility if the other one

[131] HVT April 22, 2025 14:23:38 -14:23:45.

[132] HVT April 22, 2025 14:23:46-14:24:01.

[133] HVT April 22, 2025 14:24:08- 14:24:13.

[134] HVT April 22, 2025 14:24:22 -14:24:31.

[135] HVT April 22, 2025 14:24:34-.14:24:50.

[136] HVT April 22, 2025 14:25:51-14:25:58.

[137] HVT April 22, 2025 14:25:21-14:25:40.

is down.[138] The CCGT is expected to save approximately $1.1 billion in energy savings over a ten year period[139] and approximately $100 million in revenue savings per year.[140] Both the CCGT and the Cooper Unit 2 co-firing will utilize the same natural gas pipeline.[141]

Cooper Unit 2 co-firing project will cost $73 million but will yield approximately $100 million in savings.[142] EKPC determined that co-firing Cooper Unit 2 will keep EKPC from having stranded costs associated with Cooper Unit 2.[143] Both the CCGT and Cooper Unit 2 co-firing will utilize the same natural gas pipeline.[144] If the GHG rule survives there will be no capacity factor limit[145] and if the GHG rule is eliminated there will be an energy hedge between coal and natural gas.[146] The natural gas fuel costs will be lower than the costs for coal because of Cooper Station's location and the coal has to be trucked in.[147]

The Spurlock Units 1-4 co-firing project will cost approximately $187 million[148] but will result in approximately $745 million in savings.[149] It will have a high ELCC rating for PJM and

[138] HVT April 22, 2025 14:25:42 -14:25:57.

[139] HVT April 22, 2025 14:26:38-14:26:43 and Nucor Hearing Exhibit No. 4.

[140] HVT April 22, 2025 14:26:43-14:26:48 and Nucor Hearing Exhibit No. 5.

[141] HVT April 22, 2025 14:30:30-14:30:39.

[142] HVT April 22, 2025 14:29.40 – 14:29:51 and Nucor Exhibits 4 and 5.

[143] HVT April 22, 2025 14:30:00-14:30:17.

[144] HVT April 22, 2025 14:30:30-14:30:39.

[145] HVT April 22, 2025 14:30:57-14:31:15.

[146] HVT April 22, 2025 14:31:16- 14;31:30.

[147] HVT April 22, 2025 14:31:30-14:31:45.

[148] HVT April 22, 2025 14:32:35-14:32:40.

[149] HVT April 22, 2025 14:32:40-14:32:48.

will have operations and maintenance savings due to running on natural gas for a portion of the time.[150] It will also help with a large industrial customer that uses the steam from the Spurlock units for its manufacturing facility.[151]

In addition to these benefits, EKPC submitted the CCGT project into the PJM Reliability Resource Initiative ("RRI") process, and was selected by PJM and selected to advance to the next stage of the Transition Cycle # 2 process.[152] . EKPC was able to get two slots in the manufacturing queue for Siemens for the combined cycles and was very fortunate to do so.[153] There are only three manufactures worldwide for these and if EKPC loses its slots, it could be years before they are able to get another slot.[154] The same applies for the queue for the gas pipeline. There are other companies in line for the capacity EKPC has been able to reserve.[155] If EKPC does not take the capacity now, it will lose its place and may not be able to procure the amount of natural gas required for these generation units.[156] If the projects are not approved, EKPC has been told that the price of the components will raise 30%; by having the options locked in, EKPC has been able to secure the needed components at the lower cost.[157]

[150] HVT April 22, 2025 14:32:46-14:33:06.

[151] HVT April 22, 2025 14:45:18-14:46:15.

[152] EKPC's Supplemental Response to Commission Staff's Post-Hearing Request for Information, Item 9 (filed May 5, 2025).

[153] HVT April 22, 2025 14:27:30.

[154] HVT April 22, 2025 14:27:45.

[155] HVT April 22, 2025 at 14:28:45.

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

[157] *Id.*

8. Joint Intervenors Position Should Not be Accepted

The Joint Intervenors' arguments are not based on sound principles and should not be accepted. The Joint Intervenors continue to argue that EKPC's 2024 LTLF is not accurate because PJM's load forecast is lower.[158] However, EKPC provided extensive documentation and testimony regarding the difference between the two load forecasts and why EKPC's accurately accounts for EKPC's load.[159] In addition, the Joint Intervenors seem to be supporting battery energy storage systems ("BESS") over new generation resources.[160] BESS is not additional generation, it is storage, acting as a "time machine" to move electricity from one point in time to another. EKPC would need excess generation in order to be able to charge the batteries. BESS is extremely expensive based on EKPC's information as well as the information provided by KU/LG&E in Case No. 2025-00045.[161] The Joint Intervenors' arguments simply do not have merit.

B. Construction of the Cooper CCGT and Co-Firing Projects Do Not Result in Wasteful Duplication

Construction of the Cooper CCGT and co-firing projects will not result in wasteful duplication. "Wasteful duplication" is defined as "an excess of capacity over need" and "an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties."[162] In order to demonstrate that the proposed generation units do not result in

[158] Revised Direct Testimony of Elizabeth Stanton on Behalf of Joint Intervenors Appalachian Citizen's Law Center, Kentuckians for the Commonwealth, and Mountain Association ("Revised Stanton Testimony") at 7 (filed February 20, 2025).

[159] HVT April 22, 2025 at 14:05:02.

[160] *See generally,* Revised Stanton Testimony.

[161] *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; *see also* EKPC's Response to Joint Intervenors' Post-Hearing Data Request, Item 6.

[162] *Kentucky Utilities*, Case No. 2022-00066, at 14-15 citing *Kentucky Utilities Co*. at 890.

wasteful duplication, the Commission held that the applicant must demonstrate that a thorough review of all reasonable alternatives was performed.[163] The Commission also found that even if a proposed project ultimately costs more than an alternative, this does not necessarily result in wasteful duplication.[164]

Pursuant to KRS 278.030(2), EKPC has an obligation to furnish adequate, efficient and reliable service to its Owner-Members. As evidenced by the 2024 LTLF, EKPC has inadequate generation and will not be able to provide the service necessary without either construction of generation resources or relying on market purchases. EKPC provided evidence throughout the proceeding that the Cooper CCGT and co-firing Cooper 2 and the Spurlock units are the least costly and most reasonable options for the generation EKPC needs. EKPC has an immediate need for additional generation and the Cooper CCGT and the co-firing will help fulfill EKPC's need for generation, add diversity to EKPC's generation portfolio, allow EKPC to meet its sustainability goals, and prepare for future environmental regulations.

EKPC evaluated all of its options when considering how to move forward to procure the additional generation needed to serve its Owner-Members.[165] Beginning with the 2022 IRP process, EKPC evaluated all the available generation options to meet EKPC's needs, including nuclear, coal-fired, and intermittent resources.[166] Additionally, the amount of capacity needed is

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[163] *Kentucky Utilities*, Case No. 2022-00066, p. 15, citing *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky*, Case No. 2005-00142, Order. (Ky. P.S.C. Sept. 8, 2005).

[164] *Kentucky Utilities,* Case No. 2022-00066, p. 15, citing *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 390 S.W.2d 168, 175 (Ky. 1965); *See also* Case No. 2005-00089, *The Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity to Construct a 138 kV Electric Transmission Line in Rowan County, Kentucky* (Ky. P.S.C. Aug. 19, 2005).

[165] HVT, April 21, 2025 at 10:13:01.

[166] Mosier Direct Testimony, pp. 5-6.

far greater than what can be achieved through demand-side programs.[167] The Cooper CCGT and co-firing of Cooper Unit 2 and the Spurlock Station also poise EKPC for any future environmental regulations that may affect coal generation in the United States.[168]

The Commission expressed the desire for utilities to have sufficient "steel in the ground" to adequately serve its native load. Without the additional generation that will be supplied by the Cooper CCGT and 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.[169] 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.[170] The Commission found that market purchases are not extraordinary and eligible for recovery when the utility could have planned for them.[171] Since EKPC is aware of its continuing all-time peaks, it must have sufficient generation to avoid wasteful, more expensive market purchases.

[167] Tucker Direct Testimony, pp. 9-10.

[168] HVT, April 21, 2025 at 15:09:01.

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

[170] *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).

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

C. EKPC Satisfied its Burden of Proof for the Issuance of a Site Compatibility Certificate

EKPC provided a Site Assessment Report ("SAR") that contained the information required for the issuance of a Site Compatibility Certificate for the proposed Cooper CCGT since CCGT will be capable of producing more than 10MW.[172] The SAR details various aspects of the project, including the proposed site development plan, compatibility with scenic surroundings, property value impacts, anticipated noise levels, impact on road and railways, and multiple mitigation measures.[173] The proposed site development plan includes a comprehensive description of the facility layout, surrounding land uses, legal boundaries, access control, facility buildings, utilities, and noise evaluation.[174] The project's compatibility with scenic surroundings was evaluated, highlighting the fact the project is located on the current Cooper Power Station.[175] In addition, the property value assessment found there would be no negative impacts on adjoining property values.[176]

The SAR contains a Sound Study Report that evaluates the peak and average noise levels of the proposed Cooper CCGT.[177] The report is based upon the United States Environmental Protection Agency ("EPA") guidelines that state a sound limit level at nearby sound receptors should be lower than 48.6 dBA for the comfort of nearby residents.[178] Through modeling it was

[172] Application, Exhibit 4, Direct Testimony of Brad Young, Attachment BY-5 ("SAR").

[173] SAR.

[174] SAR at 2-1 – 2-4.

[175] SAR at 3-1.

[176] SAR, Appendix A at 1 and 32.

[177] SAR, Appendix C.

[178] SAR 5-1 and 5-2.

determined that there are three noise receptors where the sound level would be higher than the EPA guidelines.[179] However, the Sound Study does not take into consideration a power generating station is already on the site which causes the same level of noise.

KRS 278.216(2) states that a facility construction on a site containing existing facilities capable of generating 10MW of electricity shall not be required to comply with the setback requirements in KRS 278.704(3). The Cooper Station is capable of producing 300 MW of electricity; so, EKPC does not believe it must comply with the setback requirements in KRS 278.704(3). However, EKPC is requesting the current setbacks for the Cooper Station be applied to the CCGT that EKPC requests to be built at Cooper Station. EKPC believes that the proposed CCGT's location will meet the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 at a distance closer than the 2,000 feet setback required in KRS 278.704(2) for residential neighborhoods. The residential neighborhood that is within 2,000 feet of the Cooper Station is across the Cumberland River. The residential neighborhood is screened by vegetation on both sides of the river. Additionally, the Cooper Station has been at this location since 1965 and has been operating with the setbacks proposed for the new CCGT. The statutory goals of the setback requirements will continue to be met by permitting the new CCGT to be constructed with the same setback from the residential neighborhood.

D. The Prosed DSM Program Are Reasonable and the DSM Tariffs Should be Approved.

KRS 278.285 permits the Commission to approve DSM/EE programs proposed by a utility if the programs are reasonable. The DSM/EE programs proposed by EKPC are reasonable and have been thoroughly considered. EKPC offers a portfolio of programs for its Owner-Members

[179] SAR 5-1 and 5-2.

and the end-use members that are useful and helps offset a portion of EKPC's required load.[180] EKPC undertook an extensive review of DSM/EE programs to determine what slate of DSM programs to continue, increase, or change.[181] After cost-effective DSM/EE measures were identified in the 2024 DSM Potential Study, those measures and programs were discussed with the DSM Collaborative along with EKPC and Owner-Member DSM/EE experts.[182] After program level cost benefit analyses are performed by EKPC's expert DSM consultant utilizing the California Standard Practice based DSMore cost benefit analysis software,[183] EKPC developed a new DSM Plan[184] that significantly increases the DSM programs offered resulting in a significant increase in energy and demand savings.

EKPC has five (5) existing DSM/EE programs, one (1) existing pilot demand response program, and is proposing four (4) new DSM/EE programs.[185] Of the current DSM/EE offerings EKPC is not requesting to change the Touchstone Energy Home program, Direct Load Control program, or the Electric Vehicle Home Charging program in this proceeding.[186] EKPC is requesting that the Commission allow changes to the Button-Up Weatherization program, the Heat Pump Retrofit program, and the CARES program to allow for increased incentives.[187]

[180] Application, Exhibit 10 Direct Testimony of Scott Drake ("Drake Direct Testimony") and HVT April 22, 2025 at 10:17:01.

[181] Drake Direct Testimony at 5.

[182] Drake Direct Testimony at 5-8.

[183] Drake Direct Testimony at 6.

[184] Drake Direct Testimony at 8.

[185] Drake Direct Testimony at 10.

[186] Drake Direct Testimony at 11-12.

[187] Drake Direct Testimony at 11-12.

The four new programs offered by EKPC were the result of the 2024 Potential Study and the Collaborative.[188] EKPC is proposing the High Efficiency Heat Pump Program to provide an incentive to homeowners to replace heat pumps with ones that are better than minimum government standards.[189] The Commercial Advanced Lighting program provides an incentive for small non-residential businesses to replace inefficient lightbulbs.[190] The Commercial and Industrial Thermostat program provides an incentive to businesses to install self-learning thermostats.[191] The Back-up Generator Control program allows an annual incentive to end-use members to allow EKPC to operate their permanently installed home backup generator during peak energy events.[192]

The forecast energy and demand savings from the new DSM Plan was applied to the 2024 LTLF decreasing the energy and demand of the 2024 LTLF.[193] The 2024 LTLF provided by EKPC shows that although DSM/EE programs help to reduce load, the reduction is not even close to being enough to offset EKPC's peak load to eliminate the need for additional generation capacity. By modifying the LTLF values, DSM/EE programs receive the maximum amount of generation capacity valuation.[194]

Nucor and the Attorney General did not provide evidence, nor question, EKPC's DSM/EE programs. The Joint Intervenors agree with EKPC's DSM/EE current programs and the new

[188] Drake Direct Testimony at 10.

[189] Drake Direct Testimony at 12.

[190] Drake Direct Testimony at 12.

[191] Drake Direct Testimony at 12.

[192] Drake Direct Testimony at 12.

[193] Drake Direct Testimony at 13.

[194] Drake Direct Testimony at 13.

programs.[195] However, the Joint Intervenors argued EKPC should be required by the Commission to complete a new DSM review within 6 months.[196] EKPC explained that based upon the time it takes to complete a Potential Study and then receive input from the Collaborative, this timeline is unreasonable.[197]

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. Aside from providing the additional generation EKPC needs, there are other benefits that will be derived from the Cooper CCGT and co-firing projects including adding a generation asset that will help diversify EKPC's generation portfolio, assist with the coal retirements within the PJM electric grid, poise EKPC to be able to adapt to ever changing environmental regulations, aid in economic development, and provide reliable energy at a competitive price. The DSM/EE programs EKPC proposed are reasonable and should be approved.

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.

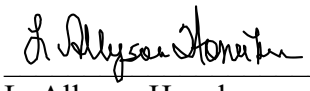
This the 6th day of May 2025.

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

[196] Direct Testimony of Maria Roumpani at 59.

[197] HVT, April 22, 2025 at 10:20:22.

Respectfully Submitted,



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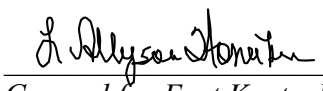
CERTIFICATE OF SERVICE

This is to certify that the foregoing electronic filing was transmitted to the Commission on May 6, 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.