COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

POST-HEARING RESPONSE BRIEF OF JOINT INTERVENORS APPALACHIAN CITIZENS' LAW CENTER, KENTUCKIANS FOR THE COMMONWEALTH, AND MOUNTAIN ASSOCIATION

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I. Introduction

East Kentucky Power Cooperative ("EKPC") seeks from this Commission certificates of public convenience and necessity ("CPCN") for a multi-billion dollar investment in gas-fired generation. These investments include the $1.317 billion Cooper combined cycle gas turbine ("Cooper CCGT"), $260.8 million conversion of Cooper Unit 2 and the Spurlock units to allow for gas co-firing, and the $500 million Liberty RICE units proposed in Case No. 2024-00310. When the approximately $800 million in capital costs to bring gas supply to the Cooper and Spurlock sites is included, the estimated capital cost of this "plan in total" is more than $2.8 billion. The Joint Intervenors take no position on the Spurlock gas co-firing proposal beyond the as-yet unresolved concerns about the technical feasibility of co-firing gas at Spurlock 3 and 4 and, if those retrofits are infeasible, whether the Spurlock 1 and 2 gas co-firing and related pipeline are still cost effective. However, while some new generation may be justified, the record is clear that EKPC has not met its burden to demonstrate the need for all three of the Cooper CCGT, Liberty RICE units, and Cooper 2 gas co-firing, or that pursuing all three projects would not lead to a lack of wasteful duplication.

In its Post-Hearing Brief, EKPC almost entirely ignores the numerous substantive critiques of its proposals detailed in the record, devoting only a single paragraph to "Joint Intervenors Position."[1] Instead, EKPC reiterates in conclusory fashion its claims about growing energy demand and purported lack of alternatives, while steadfastly ignoring evidence that is inconsistent with or even directly contradicts the claims it highlights. The AG and Nucor's post-hearing briefs, meanwhile, provide even more conclusory summaries of EKPC's case, with the AG adding an entirely irrelevant discussion of energy policy in other states and recent federal

[1] EKPC Post-Hearing Br. at 25.

executive orders. What none of those post-hearing briefs do is revive EKPC's failure to demonstrate that its Cooper CCGT, Cooper 2 gas co-firing, and Liberty RICE proposals all satisfy Kentucky's CPCN standards.

In its Post-Hearing Brief, Nucor notes the hearing testimony of Don Mosier, EKPC's Executive Vice President and Chief Operating Officer, that EKPC "began in earnest" on the Cooper CCGT project "back in the 2017 time frame."[2] Nucor suggests that the lengthy period of time for which EKPC has apparently wanted to build a new CCGT is somehow a sign of due diligence.[3] In reality, this extended timeline further bolsters the point made in Joint Intervenors' Post-Hearing Brief that EKPC's evidence in this proceeding boils down to post hoc rationalizations of a pre-selected CCGT plant, as opposed to a careful and thorough evaluation of how EKPC can most prudently ensure reliable and affordable service to its Owner-Members and their customers.[4]

Instead of due diligence, events since the "2017 timeframe" show how EKPC failed to pursue opportunities to cost-effectively meet its energy needs, and ignored evidence that an expensive new CCGT was not the optimal option for doing so. For example, since 2017:

- EKPC completed Integrated Resource Plans ("IRPs") in 2019 and 2022, neither of which identified a CCGT as the best resource for meeting EKPC's future needs.
- EKPC has apparently not carried out any capacity expansion or resource optimization modeling that selected a CCGT, despite having the ability to do so.
- EKPC has failed to pursue the hundreds of MW of decreased load and millions of MWh of energy savings that EKPC's own potential studies in 2019 and 2022 identified as realistically achievable through cost-effective energy efficiency and demand response programs.
- EKPC issued Long-Term Load Forecasts in 2020 and 2022, both of which significantly overestimated annual energy sales.

[2] Nucor Post-Hearing Br. at 6, citing April 21, 2025 HVT at 9:36 to 9:37am.
[3] Nucor Post-Hearing Br. at 6, 8.
[4] Joint Intervenors Post-Hearing Br. at 7.

- EKPC failed to apply for federal financial support for battery storage under the New ERA program, and ignored the substantial tax credits available for battery storage under the Inflation Reduction Act.

In short, instead of showing due diligence, the developments of the past seven years further call into question the necessity and reasonableness of the expensive new CCGT that EKPC has apparently long wished to build.

II. The Commission Should Reject EKPC and Nucor's Attempts to Distract From the Applicable CPCN Standards.

As Joint Intervenors detailed in their Post-Hearing brief,[5] the legal standards for evaluating a CPCN application are well-established. In particular, the applicant has the burden of demonstrating that there is both a need for the service that the utility seeks to provide, and that the utility's proposal would not result in "wasteful duplication." Need must be established through a demonstration of a "substantial inadequacy of existing service." In order to establish a lack of "wasteful duplication," the applicant must show not only that its proposed investments are not excessive in relation to the identified need, but also that it has carried out a "thorough review of all reasonable alternatives" and that the "fundamental principle of reasonable least-cost alternative" was embedded in such review. In short, in order to obtain the requested CPCNs, EKPC had to demonstrate both that there is a need, and that it has proposed a reasonable least-cost portfolio for meeting that need.

A. EKPC's lack of a profit motive is irrelevant to the question of whether EKPC has satisfied the CPCN standard.

While generally acknowledging these applicable legal standards, EKPC and Nucor proceed to offer arguments that distract from, and could undermine, those standards. First, both EKPC and Nucor find import in EKPC's lack of profit motive to overbuild capacity. For

[5] Joint Intervenors Post-Hearing Br. at 25-27.

example, Nucor claims that "Motive is important" and highlights that "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."[6] EKPC makes similar claims.[7] While these statements are factually accurate, they are irrelevant to the question of whether EKPC has demonstrated that the $1.317 billion Cooper CCGT and other proposed projects are needed and are reasonable least-cost options for meeting such need.

Notably, neither EKPC nor Nucor have identified any support in previous Commission orders or case law for the suggestion that a utility's lack of profit motive is relevant to whether the CPCN standard has been satisfied. Joint Intervenors' own search also turned up nothing. This is not surprising, as the relevant issue is not EKPC's motive but, instead, whether the analyses carried out and the evidence presented by EKPC are sufficient to establish need and a lack of wasteful duplication. That question can and should be answered without ascribing intent – good, bad, or otherwise – to EKPC, its staff, and its Owner-Members, as the mere lack of a profit motive does nothing to bolster an otherwise insufficient evidentiary showing, just as the mere fact that an investor-owned utility has a profit motive does not, on its own, undermine an otherwise sufficient evidentiary showing.

The simple fact is that ill-informed decisions can be made for a multitude of reasons, and even with the best of intentions a utility can make mistakes, rely on faulty assumptions, or otherwise end up proposing actions that are unreasonable or unjustified. For example, as Joint Intervenor witness Dr. Stanton testified, a utility's decision making could be impacted by inertia and a bias in favor of staying with the kind of decisions that the utility has made in the past.[8] It

[6] Nucor Post-Hearing Br. at 6.
[7] EKPC Post-Hearing Br. at 2 (stating that "EKPC does not have any incentive to build generation that is not needed), and 22 (noting that "EKPC is a cooperative and does not have an incentive to build extra base rate.").
[8] April 22, 2025 HVT at 5:10 - 5:11pm.

would be unworkable for the Commission to try to start parsing through how possible motives or lack thereof may have impacted a utility's analysis. It would also be a distraction, as figuring out such motives would not answer the question of whether the evidence presented supports EKPC's claimed need and demonstrates that the proposed Cooper CCGT is a reasonable least-cost option for meeting that need. As detailed in Joint Intervenors' post-hearing brief, the answer to that question is no, regardless of EKPC's lack of profit motive.

B. EKPC does not have a "need" to serve PJM beyond meeting its summer capacity obligation.

EKPC's Post-Hearing Brief also tries to vastly expand the scope of what counts as need for purposes of a CPCN by contending that the Cooper CCGT would serve the needs not only of EKPC's customers but also of PJM. In particular, EKPC contends in its Post-Hearing Brief that "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."[9] EKPC also identifies as one of the benefits of the CCGT that it would "assist with the coal retirements within the PJM electric grid."[10]

Building to serve PJM's needs would turn the purpose of regional transmission organizations ("RTOs") on its head. Utilities join RTOs such as PJM to gain access to a wide array of generation resources so that they can more cost-effectively supply their energy needs and improve reliability, not to build resources for PJM's benefit.[11] Regardless, EKPC has provided no support for the suggestion that the needs of PJM are relevant to the needs and lack

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[9] EKPC Post-Hearing Br. at 9.
[10] EKPC Post-Hearing Br. at 32.
[11] As a member of PJM, EKPC does have a load obligation to that entity that reflects EKPC's projected summer peak minus six percent. With its existing capacity, EKPC is projected to meet that PJM load obligation through 2029, and to have a shortfall of less than 150 MW through 2033. See Tucker Direct, Attachment JJT-4 (comparing the Load Obligation SUM and Existing Capacity SUM columns), which means that EKPC would not need the Cooper CCGT to meet its PJM load obligation. Regardless, EKPC needing to meet its own obligation to PJM is far different than EKPC's contention in its Post-Hearing Brief that the Cooper CCGT is needed to help PJM meet its own needs.

of wasteful duplication standards for a CPCN. The reality is that state law authorizes and requires a utility to furnish "adequate, efficient and reasonable service,"[12] to consumers within its territory, not to those in other territories.[13] To conclude otherwise would threaten to put EKPC's Owner-Members' customers on the hook for the costs of serving other states and regions that the AG purports in its Post-Hearing Brief to be concerned about.[14]

C. The Commission's statements about "steel in the ground" and avoiding sustained market dependence do not obviate the need for a careful analysis of need and wasteful duplication.

Next, EKPC tries to distract from the questions of need and wasteful duplication by repeatedly highlighting prior Commission orders expressing support for utilities owning or contracting for enough capacity to serve their native load, and general disinterest in utilities relying on energy and capacity markets to do so.[15] While its language varies across matters, the Commission commonly expresses these points by urging utilities to have "steel in the ground," and by stating that it "has no interest in allowing our regulated, vertically-integrated utilities to effectively depend on the market for generation or capacity for any sustained period of time."[16] EKPC sprinkles these points throughout its Post-Hearing Brief as if they automatically demonstrate need and a lack of wasteful duplication while making clear that "EKPC cannot solely rely on market purchases."[17]

The steel in the ground and sustained market dependence language, however, does not obviate the need for a careful evaluation of EKPC's proposals pursuant to the standards for evaluating a CPCN. For one thing, it is important to keep in mind the limited role that potential PJM market strategies play in this matter. Contrary to EKPC's implication, no one is suggesting

[12] KRS 278.030(2).
[13] KRS 278.018(1).
[14] AG Post-Hearing Br. at 4-5.
[15] EKPC Post-Hearing Br. at p. 8 & n. 29, p. 13 & n. 67, p. 18 & n. 107, p. 20, and p. 27 & n. 170.
[16] *See* Joint Intervenors Response to Staff Request 1-2(b).
[17] EKPC Post-Hearing Br. at 20.

that EKPC could or should "solely rely on market purchases" to satisfy its forecasted load and energy demand. Instead, the issue of reliance on PJM arises here solely in the context of the new 7% winter reserve margin that EKPC is using to address potential higher-than-forecasted winter peaks during major winter storms. For more than a decade, EKPC has carried no winter reserve margin thanks to its membership in PJM, which has saved EKPC money and successfully kept the lights on during multiple winter storms. The question of whether EKPC has justified its decision to abandon that strategy and instead institute a 7% winter reserve margin is addressed in Section IV.B below. The relevant point here is only that the Commission's prior statements about avoiding sustained market dependence do not decide the issue.

In at least three ways, these Commission statements do not foreclose continued reliance on PJM membership to avoid the need for a significant winter reserve margin. First, the Commission has made clear that its concern is about market dependence for a "sustained period of time." The heightened winter peaks at issue here, however, are of relatively limited duration, and are counted in hours, rather than weeks or months.[18] As such, reliance on PJM membership to cover EKPC's winter reserve margin does not constitute the market dependence for a "sustained period of time" that the Commission has critiqued.

Second, none of the Commission decisions including such statements dealt with reliance on RTO membership to avoid the need for a winter reserve margin. Instead, the Commission's statements arose in one of two contexts: (1) setting avoided capacity costs on the basis of the cost of building or contracting for firm capacity,[19] or (2) rejecting the idea that RTO membership standing alone, or market purchases for a long period of time, should be used to replace major

[18] Revised Direct Testimony of Elizabeth A. Stanton, PhD, at 17:4-15 (Feb. 14, 2025) ("Stanton Revised Direct").
[19] Cases No. 2021-00198, 2023-00102, 2023-00153.

retiring or contracted-for generation.[20] It would be a significant expansion of those prior holdings to apply them to the PJM reserve margin issue raised here.

Finally, EKPC's ability to go without a winter reserve margin was a key benefit identified when the Commission approved EKPC joining PJM,[21] and EKPC has continued to identify that benefit in annual filings and IRPs ever since even as the Commission has been making statements about steel in the ground and avoiding sustained market dependence.[22] That these things have been happening in parallel is further evidence that they do not conflict.

D. EKPC leaves out important context in its discussion of "wasteful duplication" precedent.

EKPC's Post-Hearing Brief appropriately quotes the leading precedent with regards to the standard for a CPCN. However, additional context of that decision in particular, and rural electrification in general, shows the meaning of what "some duplication" and "steel in the ground" mean must of necessity evolve with the complexity and interconnectedness of the modern bulk electric system.

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[20] Cases No. 2022-00402, 2023-00159. EKPC also cites to a 2015 order in an EKPC Fuel Adjustment Clause proceeding, but that order does not include any of the referenced language and, instead, simply notes that certain limits on FAC cost recovery are intended to "incentivize utilities . . . to have sufficient capacity to meet load. Case No. 2014-00226, Jan. 30, 2015 Order at 8.

[21] Order, *In re Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC*, Case No. 2012-00169, at 13-14 (Dec. 21, 2012) ("EKPC notes that it is a winter-peaking utility and now must meet a 12 percent generation planning reserve requirement, which currently equates to 360 MW, in both the winter and the summer season. However, PJM is a summer peaking system and, if EKPC becomes a member of PJM and participates in RPM, EKPC will be required to hold a much smaller planning reserve requirement of 2.8 percent, which currently equates to 70 MW, during the summer season only. The ability to maintain a lower reserve margin is expected to produce additional revenue for EKPC, since any generating capacity in excess of its load and reserve margin can be sold at the PJM capacity market price. These capacity market benefits are substantial.")

[22] *See, e.g.,* EKPC's 2024 Annual Report, 2023 Annual Report, & 2022 Annual Report, *In re Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC*, Case No. 2012-00169 ("Benefits and Costs for EKPC to Leave PJM: . . . EKPC is currently able to cover its winter peak load plus a minimal reserve margin because the PJM RTO has more than 20% capacity reserves during the winter peak period. As a stand alone entity, EKPC previously planned to maintain a minimum of 12% capacity reserve margin in the winter. EKPC would have to purchase and/or construct additional capacity to maintain an acceptable winter peak operating reserve level."); 2022 IRP at 44 ("To the extent EKPC remains winter peaking and PJM remains summer peaking, EKPC has a potential to earn revenue to offset other costs of providing full requirements service to its owner-member distribution cooperatives.").

In 1952, the Kentucky Court of Appeals (then the highest court in Kentucky) set a standard for determining whether a certificate of public convenience and necessity is warranted.[23] As agreed in Joint Intervenors and EKPC's post-hearing briefs, generally the standard requires a showing of: (1) need and (2) absence of wasteful duplication.[24] EKPC further partially quotes the Court of Appeals with regard to wasteful duplication:

> By what has been said in this opinion, we 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.[25]

That 1952 decision was based on the outcome of proceedings before the Commission in 1950.[26] At issue was the right to produce and transmit the electricity to serve additional undeveloped and unserved portions of rural Kentucky.[27] Just 15 years earlier, in 1935, 90% of rural Kentuckians did not have electricity.[28] It was not until the adoption of the Rural Electrification Act in 1936 that concerted efforts were made "for rural electrification and the furnishing of electric energy to persons in rural areas who are not receiving central station service…."[29] It wasn't again until after World War II concluded that much of the last portions of rural Kentucky were in fact reached with electric service, with the number of rural homes served more than tripling by 1950, and only reaching nine in ten rural farms in 1953.[30]

Specifically at issue was whether the Commission had lawfully granted a CPCN to the newly-formed East Kentucky Rural Electric Cooperative Corporation ("East Ky.") to construct

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[23] *Ky. Utils. Co. v. Pub. Serv. Comm'n*, 252 S.W.2d 885 (Ky. 1952).
[24] *Id.* at 891; EKPC Post-Hearing Br. at 4; Joint Intervenors Post-Hearing Br. at 25 of 65.
[25] *Ky. Utils. Co. v. Pub. Serv. Comm'n*., 252 S.W.2d at 892
[26] *Id.* at 894.
[27] *Id.* at 889; *see also id.* at 898 (Moremen, J., dissenting).
[28] Ky. Elec. Coops, *Cooperative History*, https://kyelectric.coop/faq-2/ (accessed May 16, 2025).
[29] 49 Stat. 1363 (Pub. Law 74-605) at Sec. 2.
[30] Ky. Elec. Coops, *Cooperative History*, https://kyelectric.coop/faq-2/ (accessed May 16, 2025).

its first 40 MW generating facility and 597 miles of transmission lines, which it would use to serve the member-owners of rural distribution coops not yet served by investor-owned utilities.[31] Investor-owned utilities challenged East Ky.'s right to the CPCN, particularly Kentucky Utilities Company, Louisville Gas and Electric Company, and Union Light, Heat and Power Company, who supplied some power to rural parts of the Commonwealth that were served by the member-owner distribution coops.[32]

In that context, the "substantial inadequacy of existing service" at issue, therefore, was an entirely unserved portion of rural Kentucky, which was "due either to a substantial deficiency of service facilities, … 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" of the investor-owned utilities.[33] The Court of Appeals found the Commission properly granted the CPCN for the new generating facility (what would become Units 1 and 2 of the William C. Dale Power Station[34]), but that it should not have granted the CPCN for the transmission facilities absent a showing that they would not be duplicative of those already constructed or being constructed regardless, by the investor-owned utilities, in order to avoid "economic loss through interference with normal uses of the land, that may result from multiple sets of right of ways, and a cluttering of the land with poles and wires."[35] The Commission further found that East Ky. would be able to provide substantially adequate service in place of

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[31] *Ky. Utils. Co. v. Pub. Serv. Com.*, 252 S.W.2d at 889.
[32] *Id.*
[33] *Id.* at 890.
[34] Case No. 2015-00267, *Application of East Kentucky Power Cooperative, Inc. For Approval of the Acquisition of Existing Combustion Turbine Facilities from Bluegrass Generation Company, LLC at the Bluegrass Generating Station in Lagrange, Oldham County, Kentucky and for Approval of the Assumption of Certain Evidences of Indebtedness*, Application at 6 (Jul. 24, 2015); East Kentucky Power Cooperative, *History: Making Lives Better with Affordable, Reliable Power*, https://www.ekpc.coop/history-making-lives-better-affordable-reliable-power, (accessed May 16, 2025).
[35] *Ky. Utils. Co. v. Pub. Serv. Com.*, 252 S.W.2d at 892.

the investor-owned utilities, in part through an agreement with T.V.A. to meet its reserve requirements.[36]

This context is important to remember when "some duplication" is asked for, and the desire for "steel in the ground" is expressed.[37] The precedent cited was based on a time when many if not most Kentuckians were not served *at all* due to the unwillingness of investor-owned utilities to render adequate service. It was not a blank check to build duplicative facilities. The terms are also not tokens to bypass the need to consider the overall abilities and impacts of the modern bulk power system. Indeed, even in 1952 EKPC was allowed to rely on an agreement with an interstate system to meet reserve requirements.

Furthermore, the allowance of "some duplication" in certain contexts in no way implies that "[t]he complete absence of *wasteful* duplication is not necessary,"[38] as EKPC paraphrases in its brief. *Kentucky Utilities Co.* permits no qualifications on this point: "a determination of public convenience and necessity *requires* . . . an absence of wasteful duplication resulting from the construction of the new system or facility."[39] EKPC cites the Court of Appeals of Kentucky's 1965 opinion in *Kentucky Utilities Co. v. Public Service Comm'n* in its attempt to claim that the complete avoidance of wasteful duplication is not necessary, but that case also provides no basis for EKPC's assertion. In that case, there was "really no basis for any argument that there will be an excess of capacity over need," there was "no real contention that there [would] be a duplication from the standpoint of a multiplicity of physical properties," and the Court reaffirmed that a criteria for CPCN approval is that the project "will not result in wasteful

[36] *Id.* at 895.
[37] EKPC Post-Hearing Br. at 5, 8.
[38] *Id*. at 6 (emphasis added).
[39] *Ky. Utils. Co. v. Pub. Serv. Comm'n*., 252 S.W.2d at 890 (emphasis added).

duplication."[40] As such, even if some duplication was allowed in some contexts, wasteful duplication never is.

III. Demand Side Management

EKPC's Post-Hearing Brief briefly addresses demand-side management ("DSM"), notes apparent consensus among the parties that the proposed DSM plan could be found reasonable, and then responds to the balance of the record in three sentences.[41] With only one exception, EKPC's Post-Hearing Brief offers no direct response to Dr. Roumpani's many factual observations or reasonable recommendations. In the one instance where EKPC attempted to respond—the reasonableness of timelines proposed by Dr. Roumpani—EKPC first misstated that recommendation. With that, Joint Intervenors' testimony, evidence, and argument on DSM stands largely undisputed, and the Commission should strongly consider approving the proposed DSM plan and directing EKPC to follow Dr. Roumpani's further recommendations.

Concerning recommended timelines, EKPC's Post-Hearing Brief asserts that it would be unreasonable to expect EKPC "to complete a new DSM review within 6 months."[42] That's fine; no one recommended that. Dr. Roumpani recommended a series of milestones spanning a roughly fifteen-month period:

- Within six months of a final order, propose an expanded DSM plan based on the data EKPC already has available from its DSM consultant.[43]
- Within twelve months of a final order, provide an updated Potential Study correcting analytical shortcomings identified by Dr. Roumpani and unrebutted by EKPC.
- By January 2027, propose an updated DSM plan based on the improved potential study.[44]

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[40] *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 390 S.W.2d 168, 173 & 175 (Ky. 1965).
[41] EKPC Post-Hearing Br. at 32.
[42] EKPC Post-Hearing Br. at 32; *id.* ("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.").
[43] EKPC Post-Hearing Br. at 30.
[44] Testimony of Maria Roumpani, PhD on Behalf of Joint Intervenors Appalachian Citizens' Law Center, Kentuckians for the Commonwealth, and Mountain Association ("Roumpani Direct"), at 4-5 (Feb. 14, 2025) (among other recommendations).

The reasonableness of Dr. Roumpani's timeline is beyond dispute.[45] In this very proceeding, EKPC spent less than one calendar year from beginning the potential study to initiating this proceeding.[46] EKPC can do again what it has done before; anything less would be unreasonable.[47]

Concerning Dr. Roumpani's further DSM recommendations, to which EKPC has not responded via rebuttal testimony or post-hearing briefing, Joint Intervenors can only assume that EKPC agrees. For these reasons, and those already discussed in Joint Intervenors' Post-Hearing Brief, the Commission should approve the proposed DSM Plan and direct a reasonable series of steps, as recommended by Dr. Roumpani, to ensure EKPC pursues robust DSM planning and attempts to maximize the least-cost, no-regrets potential of helping end-users avoid waste and save energy.[48]

IV. EKPC has not shown a need for the proposed "Plan in Total."

The critical first question with regards to the CPCNs sought by EKPC is whether EKPC has demonstrated a need for its "Plan in Total," which for purposes of this discussion includes the 745 MW Cooper CCGT, the 214 MW Liberty RICE units proposed in Case No. 2024-00310, and the preservation of the Cooper 2 unit through the proposed gas co-fire project. EKPC, of course, claims there is a need, relying on its 2024 Long Term Load Forecast ("2024 LTLF") and its new 7% winter reserve margin. As Joint Intervenors detailed in their post-hearing brief,

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[45] Apr. 22, 2025 HVT at 4:53 p.m. to 4:55 p.m. (Dr. Roumpani affirms reasonableness of the recommended timelines in response to questions from Commission Staff).

[46] Joint Intervenors Post-Hearing Br., Fig. 1 (timeline, reflecting that EKPC's process from start of potential study to initiating this proceeding was less than 10 months, February to November 2024).

[47] In addition to EKPC, Louisville Gas & Electric Company and Kentucky Utilities Company recently completed a DSM review in *fewer* than six months, starting a potential study in August 2022, holding two stakeholder meetings over the fall, and filing a proposed six-year DSM Plan by December 2022. Case No. 2022-00402, LG&E/KU's Resp. to JI Request No. 1-146(b) (asked when the Companies contracted with Cadmus to perform the potential study update presented at Ex. LI-1, LG&E/KU answered with reference to JI Request No. 1.128a); LG&E/KU's Resp. JI Request No. 1.128a (answering August 8, 2022).

[48] Joint Intervenors Post-Hearing Br., Attach. 2 (summarizing Dr. Roumpani's recommendations).

however, the 2024 LTLF is unreliable given that it includes an unverified and opaque manual adjustment to its forecast of large commercial customer load through 2029, shows a higher and faster growing winter peak than PJM's forecast for the EKPC Zone, and continues EKPC's pattern of overestimating future energy sales.[49] Meanwhile, EKPC has not demonstrated on this record that its new 7% winter reserve margin – which adds 246 to 263 MW to EKPC'sclaimed winter need for 2025 through 2031 (and increasing thereafter) – is necessary to maintain reliability or is the lowest cost option for ratepayers.[50] Regardless, even if one were to fully accept the 2024 LTLF and new 7% winter reserve margin, the 959 MW of new capacity that would result from the Cooper CCGT and Liberty RICE units exceeds EKPC's claimed winter peak shortfall.[51]

A. The Proposed Cooper CCGT and Liberty RICE Units Are Intended to Address a Forecasted Winter Peak Need that is Unsupported and Very Likely Inflated.

In their post-hearing brief, Joint Intervenors noted the curious fact that the 2024 LTLF was completed more than a year after EKPC had started down the path of proposing a new CCGT and RICE units, and finalized after the CPCN applications for both the Cooper CCGT and Liberty RICE units were filed.[52] Concern about this sequencing is heightened by EKPC's statements in its post-hearing brief that its "forecasted capacity needs are based upon EKPC's Capacity Expansion Plan," which is set forth in Attachment JJT-3, and that the Expansion Plan "supports additional generation assets to meet EKPC's capacity needs."[53] Stating that capacity needs are based upon and supported by an expansion plan puts the cart before the horse. Prudent

[49] Joint Intervenors Post-Hearing Br. at 30-36.
[50] *Id*. at 36-39.
[51] *Id*. at 29.
[52] *Id*. at 28.
[53] EKPC Post-Hearing Br. at 13-14.

utility planning, of course, bases an expansion plan on the capacity needs that have been forecasted, not the other way around.

Turning to that forecast, EKPC reiterates its claim that the Cooper CCGT "is needed to serve the existing and growing demand in EKPC's service territory,"[54] but EKPC almost entirely ignores the specific flaws in its 2024 LTLF. With regards to large commercial customer load, EKPC notes that its 2024 LTLF forecasts that sales will grow at a 1.5% compound annual growth rate from 2025 through 2039,[55] but neglects to mention that most of that growth is forecasted for 2024 through 2029.[56] For that time period, EKPC replaced the data-driven regression analysis that it uses for most of its load forecasting with "input of the owner-members" and their on-the-ground knowledge about existing and potential new large commercial customers.[57] While consideration of on-the-ground knowledge is certainly appropriate, EKPC steadfastly refused to provide any transparency around what inputs were provided, how it was decided whether a potential new customer is or is not included in the forecast, or the amount of load that should be assumed for such new customer.[58] This lack of transparency was thoroughly detailed in Dr. Stanton's direct testimony and raised at hearing, yet not even acknowledged in EKPC's Post-Hearing Brief. EKPC's silence on this critique of a significant portion of the growing demand that EKPC relies on to try to show need is telling.

As for PJM forecasting a significantly lower winter peak for the EKPC Zone than EKPC's winter peak forecast, EKPC contends that it provided "extensive documentation and

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[54] *Id.* at 8.
[55] *Id*. at 11.
[56] Tucker Direct, Attachment JJT-2 at 39 (forecasting that of the nearly 1.8 million MWh increase in large commercial customer class sales between 2024 and 2039, 1.4 million MWh would be by 2029). Similarly, EKPC's response to JI 1-31(c) forecasts that of the 241 MW of new large commercial customer class demand between 2024 and 2039, 182 MW would be by 2029).
[57] Attachment JJT-2 at 15-16.
[58] Joint Intervenors Post-Hearing Br. at 32-34.

testimony" addressing the differences between those two forecasts.[59] Beyond a single citation to the hearing record, EKPC does not identify, much less discuss, any of this documentation and testimony in its Post-Hearing Brief. As Joint Intervenors have already detailed, however, the documentation and testimony that EKPC provided explains only part, but not all, of the more than 717 MW difference between the two forecasts.[60] As such, PJM's forecast remains significantly lower than EKPC's even after accounting for the "extensive documentation and testimony" provided by EKPC.

In lieu of grappling with the significant critiques of the 2024 LTLF, EKPC's Post-Hearing Brief falls back to noting that EKPC's 2020 and 2022 Long Term Load Forecasts, along with its 2022 Integrated Resource Plan, also forecasted increases in load and energy sales and, therefore, support the need for additional generation.[61] What is at issue here, however, is not whether EKPC is likely to experience some growth in load and sales over the coming years. Instead, the relevant question is whether EKPC has reasonably assessed the amount of load growth it is likely to experience, and whether the Cooper CCGT, Liberty RICE units, and preservation of Cooper Unit 2 are all necessary and reasonable least-cost options for meeting that growth.

With regards to that question, EKPC's citation to the 2020 and 2022 LTLFs does not help its case. In particular, both of those forecasts projected significant increases in energy sales in 2022, 2023, and 2024 that did not end up materializing.[62] That track record calls into question the evidentiary value of the 2020 and 2022 LTLFs, especially given that the 2024 LTLF continued the trend of over-forecasting energy sales in 2024. As for the 2022 IRP, EKPC states the document "supports the need for additional generation capacity."[63] What EKPC leaves out,

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[59] EKPC Post-Hearing Br. at 25.
[60] Joint Intervenors Post-Hearing Br. at 30-31.
[61] EKPC Post-Hearing Br. at 8-10.
[62] Joint Intervenors Post-Hearing Br. at 36, citing Tucker Direct, Attachment JJT-3.
[63] EKPC Post-Hearing Br. at 10.

however, is that the 2022 IRP resource optimization model only selected a 225 MW simple cycle combustion turbine in 2032 even though it was offered a CCGT as a resource option.[64] As such, the 2022 IRP offers little support for the 745 MW Cooper CCGT proposed here. EKPC would presumably note that its 2024 LTLF projects higher winter peak loads than the 2020 LTLF that was utilized in the 2022 IRP. But the difference between those forecasts is approximately 260 MW in the early 2030s,[65] which is far from the 745 MW CCGT proposed here.

In its Post-Hearing Brief, EKPC states that its 2020 LTLF "was already showing a need for generation for EKPC to adequately serve its load."[66] If so, that begs the question of why EKPC waited until the second-half of 2024 to propose billions of dollars of projects that would not be available to start serving that load until the late 2020s or 2030. EKPC's own potential studies in 2019 and 2022 identified hundreds of MW of decreased load and millions of MWh of energy savings as realistically achievable through cost-effective energy efficiency and demand response programs. EKPC could have started pursuing those realistically achievable savings as a way to reduce its projected need far more quickly and at a lower cost than the projects proposed here.[67] Instead, EKPC cut its already meager DSM budgets from $5.5 million in 2019 to $4 million annually in 2021-2024.[68] While EKPC proposes a modest increase in DSM investments in this proceeding (which the Joint Intervenors urge the Commission to approve), those modest increases do not come anywhere close to trying to achieve the realistic potential identified by its own consultant. That continued failure calls into serious question the reasonableness of EKPC's gas plant proposals and Cooper 2 preservation project proposed here.

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[64] EKPC 2022 IRP at 163, 166.
[65] Tucker Direct, Attachment JJT-3.
[66] EKPC Post-Hearing Br. at 10.
[67] Roumpani Direct at 23-25 (illustrative calculation to show relatively low levelized cost of DSM portfolio savings as compared to proposed NGCC costs).
[68] Joint Intervenors Post-Hearing Br. at 22 (citing EKPC Resp. to Staff PH-6).

B. EKPC Has Not Justified Its Decision to Add a 7% Reserve Margin to Its Winter Peak.

As discussed throughout this proceeding, EKPC has for the first time since joining PJM instituted a 7% winter reserve margin, thereby adding 246 to 263 MW for 2025 through 2031 (and more thereafter) to the winter peak load that the Company contends it needs to plan for. As Dr. Stanton detailed, EKPC has not justified the claimed reliability need for the new winter reserve margin, especially given that PJM membership, along with EKPC's existing capacity, has been more than sufficient to maintain reliable service during Winter Storms Elliott, Gerri, and Enzo.[69] Nor has the Company provided any assessment of the comparative costs and benefits of its new 7% winter reserve margin, which is a significant oversight given that EKPC has long identified the ability to have no or only a minimal winter reserve margin as a key benefit of PJM membership.[70] In short, the Company has not, on this record, justified its new 7% winter reserve margin.

EKPC does not address either of these inadequacies in its Post-Hearing brief, and instead just reiterates how the new reserve margin was calculated.[71] The Company then cites to prior Commission orders noting its disinterest in utilities having sustained dependence on energy markets.[72] As discussed in Section II.C above, however, nothing in those Commission orders questions, much less forecloses, EKPC continuing its prior practice of not carrying a winter reserve margin.

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[69] Joint Intervenors Post-Hearing Br. at 38, citing Stanton Revised Direct Testimony at 31.
[70] Joint Intervenors Post-Hearing Br. at 38-39.
[71] EKPC Post-Hearing Br. at 12-13.
[72] *Id*. at 13 n. 67.

C. The Cooper CCGT is not needed to address transmission reliability and would be wastefully duplicative of various other projects.

While transmission reliability issues continue to be raised, the fact remains that EKPC has not shown a transmission reliability need for the Cooper CCGT.[73] Instead, the record reflects both the adequacy of EKPC's existing system, and the ability to maintain reliable bulk power system operations even with the retirement of Cooper 1 & 2.[74] Yet, EKPC and Nucor's Post-Hearing Briefs continue to suggest the Cooper CCGT and Liberty RICE projects are needed for transmission reliability, addressing a 2007-vintage voltage issue.[75] These claims are unsupported, and should be given no weight for at least three reasons.

First, EKPC's own studies showed that there simply is not an immediate transmission issue requiring generation from either or both existing Cooper Station units.[76] That study conclusion is consistent with actual performance: since identifying the value of power injections to the grid from Cooper Station in 2007, EKPC's transmission system has been continuously studied and upgraded; and in those 18 years, although both Cooper units are not always generating, EKPC has provided reliable service to the southern portion of EKPC's territory without bulk power system failures though the Cooper Units are not always generating.

Second, EKPC's transmission improvements apparently continue apace and presently include a $1 million capacitor bank project.[77] That transmission project will further increase the ability of EKPC's transmission system to reliably serve the southern portion of the territory, and

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[73] Joint Intervenors Post-Hearing Br. at Sec. III.B.3, 39-42.
[74] Attachment provided in Response to JI 1-23(c), Cooper Generation Unavailability Transmission Analysis, at slide 6.
[75] EKPC Post-Hearing Br. at 8 ("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."); Nucor Post-Hearing Br. at 9 ("The Cooper CCGT will provide much needed voltage support for the southern portion of EKPC's service territory.").
[76] *E.g.*, Attachment provided in Response to JI 1-23(c), Cooper Generation Unavailability Transmission Analysis, at slide 6 ("Initial results showed there is no immediate [transmission] impact to the study area due to the retirement of Cooper 1&2 along with the RICE installation at the Liberty site.").
[77] Joint Intervenors Post-Hearing Br. at 40-41.

for a fraction of the cost of new generation. To the extent that the Commission believes some transmission need persists after 18 years of investments, the capacitor bank addition, and the Liberty RICE, if approved, EKPC still must put forward evidence that more cost-effective transmission alternatives are evaluated before committing to a $1.317 billion CCGT.

Third, EKPC's second supplemental response to Joint Intervenors' Post-Hearing Data Request 5 appears to suggest that PJM shares the view that neither the Cooper CCGT or the Liberty RICE units are needed to address transmission system constraints. In PJM's Resource Reliability Initiative ("RRI") scoring, EKPC explained, projects located in constrained transmission zones received an additional 10 points, but EKPC's project proposals were ineligible for those points, which may have contributed to the Liberty RICE units not being selected in the RRI process.[78]

On this record, it seems plain that the existing system is adequate, there is no further transmission need, and even to the extent that there were, EKPC has not shown that a $1.317 billion generating resource would be the most reasonable or cost-effective solution.

V. EKPC Has Not Shown That Wasteful Duplication Would Not Result From Its "Plan in Total."

As explained previously, in order to establish that the lack of wasteful duplication standards is satisfied, a utility needs to make three showings: (1) that its proposed investments are not excessive in relation to the identified need, (2) that it has carried out a "thorough review of all reasonable alternatives," and (3) that the "fundamental principle of reasonable least-cost alternative" was embedded in such review. EKPC has failed on all three prongs of this standard.

[78] EKPC's Second Supplemental Response to Joint Intervenors Post-Hearing Data Request 5 (May 9, 2025).

A. EKPC Has Failed To Present a Meaningful Analysis of Alternatives to, and the Economics of, the Proposed Cooper CCGT.

With regards to the Cooper CCGT, EKPC has failed on all three prongs of this standard. As to the excessive investment prong, EKPC claims that "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."[79] In reality, however, the document that EKPC cites in support of that claim – Attachment JJT-4 – shows that the 959 MW of new capacity proposed by the Company would lead to at least 236 MW more installed capacity than EKPC's forecasted winter peak plus a 7% reserve margin in 2031.[80] As such, even EKPC's own likely inflated load forecast plus new 7% winter reserve margin does not establish a need for all three of the Cooper CCGT, Liberty RICE units, and preservation of Cooper Unit 2.

With regards to alternatives, Joint Intervenors agree with EKPC that a "prudent electric utility must vet options."[81] Unfortunately, the record clearly establishes that EKPC did not do so in any meaningful way. Instead, as Dr. Stanton details in her testimony, EKPC dismissed any supply side alternatives based on a simplistic qualitative process of elimination, and demand side resources were not even considered as options to help meet EKPC's claimed need.[82] In its Post-Hearing Brief, EKPC contends it was reasonable for it to ignore demand side resources because "the amount of capacity needed is far greater than what can be achieved" through such resources.[83] In support, EKPC cites to pages 9-10 of witness Tucker's Direct Testimony, which simply identifies the amount of DSM that the Company decided to propose in this proceeding.[84] As detailed throughout the record, however, that amount is far below the levels of load reduction

[79] EKPC Post-Hearing Br. at 16.
[80] Joint Intervenors Post-Hearing Br. at 29.
[81] EKPC Post-Hearing Br. at 16-17.
[82] Stanton Revised Direct Testimony at 19-21, 23-25.
[83] EKPC Post-Hearing Br. at 26-27.
[84] Tucker Direct Testimony at 9-10.

and energy savings that EKPC's own potential study shows is realistically achievable. And while that realistically achievable amount would not fully replace the Cooper CCGT, it is a fallacy for EKPC to contend that only one-for-one replacements of the Company's desired resource choices need to be considered. Instead, the relevant question is whether EKPC has thoroughly evaluated what is the most prudent and cost-effective combination of resource options for meeting its claimed need. By not even considering what role that increased levels of energy efficiency and demand response could play in helping to meet that need, EKPC has plainly failed to carry out the "thorough review of all reasonable alternatives" needed to establish a lack of wasteful duplication.

EKPC's failure on the alternatives prong of the wasteful duplication standard is further compounded by its summary dismissal of battery storage. As discussed in Section V.B below, EKPC's stated reasons for dismissing battery storage are unreasonable and unsupported in the record. By not meaningfully evaluating battery storage, the Company has ignored the potential that inclusion of storage could lead to a lower cost and more reliable plan for meeting EKPC's needs. As such, EKPC has failed to establish that it engaged in the "thorough review of all reasonable alternatives" needed to establish a lack of wasteful duplication.

EKPC has also not satisfied the least cost alternative prong of the wasteful duplication standard. Both EKPC and Dr. Stanton essentially agree that capacity expansion or resource optimization modeling is the typical way for a utility to develop a least-cost portfolio of resources for meeting an identified need.[85] EKPC also readily admits that it has not carried out any such modeling. As such, and in the absence of any other quantitative comparison of the

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[85] Joint Intervenors Post-Hearing Br. at 43-44.

costs of a range of potential resource portfolios, EKPC simply has not demonstrated that its proposed plan in full represents a reasonable least-cost alternative.

EKPC's references to other economic analyses do not overcome its fundamental failure to demonstrate that it has proposed a reasonable least-cost alternative. For example, EKPC references in its Post-Hearing Brief an "economic analysis" or "market comparison" that purportedly shows that the Cooper CCGT is "more economic compared to the expected PJM market prices."[86] It is unclear, however, what analysis or comparison EKPC is referring to. The Company cites in support of these statements pages 12-13 of the rebuttal testimony of witness Tucker and "Staff's Fourth Request, Item 6 Attachment, *DR4-6.xlxs.*" But the referenced pages in Ms. Tucker's rebuttal testimony provide only narrative text and do not identify any economic analysis. Instead, it states that Joint Intervenors claim PJM has a 20% winter capacity reserve that EKPC suggests is in fact no longer available,[87] but that precise 20% reserve margin availability is directly confirmed in EKPC's most recent annual report on its PJM membership, made not three months before the application in this case.[88] Meanwhile "DR4-6.xlxs" appears to be a reference to an attachment to EKPC's Responses to Staff 's Fourth Information Request to East Kentucky Power Cooperative, Inc. in the Liberty RICE docket, Case No. 2024-00310, which contains the results of a comparison of the Liberty RICE units to a generic combustion turbine. Regardless, a comparison of the Cooper CCGT to PJM market prices does not, of course, say anything about whether EKPC's proposed gas plant is a lower cost option than other potential resource portfolios.

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[86] EKPC Post-Hearing Br. at 21 and n. 128-130.
[87] Rebuttal Testimony of Julia J. Tucker on Behalf of East Kentucky Power Cooperative, Inc. at 12-13 (Mar. 31, 2025).
[88] Case No. 2012-00169, *In the Matter of the Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC*, Annual Report of East Kentucky Power Cooperative, Inc. at 4 (Jul. 31, 2024).

Similarly, EKPC contends that its plan in total will result in average rate increases of less than 2% per year over the next 20 years, an amount that Nucor deems "surprisingly modest."[89] Joint Intervenors certainly agree that the contention that the more than $2.8 billion in capital costs at issue would lead to a less than 2% per year increase in rates is surprising. It is also unverifiable on this record for two reasons. First, it is based on an analysis – EKPC's 2024 Long-Range Financial Forecast – for which the Company failed to produce the modeling input files upon which it was based until after the hearing and four days before the deadline for post-hearing briefs.[90] Second, the Financial Forecast evaluates EKPC's system as a whole, not the impacts of the individual projects for which the Company is seeking CPCNs. A meaningful evaluation of the rate impact of the Cooper CCGT or other projects proposed by EKPC would compare rates with the project to rates either without the project or with some other viable alternative. The record is undisputed that EKPC has not provided such an analysis.

B. EKPC has no valid excuse for failing to meaningfully review the potential of battery energy storage systems

EKPC's Post-Hearing Brief did not address the many ways in which EKPC failed to meaningfully consider battery energy storage systems ("BESS") in developing its plan to pursue the Cooper CCGT and Liberty RICE units. As Dr. Stanton explained, BESS units could play a significant role in the best combination of resources for meeting EKPC's claimed need. But in lieu of a meaningful evaluation, EKPC excluded BESS on the basis of faulty and conclusory declarations about cost and viability.

Rather than grapple with this critique, EKPC attempts to shift the burden onto Joint Intervenors, claiming that "Joint Intervenors seem to be supporting battery energy storage

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[89] Nucor Post-Hearing Br. at 6.
[90] Joint Intervenors Post-Hearing Br. at 47-48, 62.

systems ('BESS') over new generation resources."[91] EKPC provides a general citation to Dr. Stanton's testimony for this claim,[92] but Dr. Stanton's testimony does not advocate for the approval of a BESS. Rather, Dr. Stanton's testimony emphasizes the importance of conducting the modeling and analysis necessary to demonstrate that *EKPC's* proposed resources are the best and least-cost option for meeting its claimed need.[93] EKPC, after all, has the legal obligation to "demonstrate that a thorough review of all reasonable alternatives has been performed" in order to prove that it has avoided wasteful duplication.[94] Thus, the question is not whether Joint Intervenors support BESS over the proposed CCGT or other resources. The question is whether BESS is a *reasonable* alternative and whether EKPC has conducted a thorough review of it. Dr. Stanton's testimony firmly establishes that battery storage *is* a reasonable alternative, and EKPC's review of battery storage was inadequate.

As Dr. Stanton pointed out in her testimony and Joint Intervenors explained in their Post-Hearing Brief, EKPC (1) failed to present a cost comparison of battery storage compared to its proposed resources, (2) failed to include battery storage in its CPCN production cost modeling, (3) failed to conduct optimization modeling to assess battery storage, (4) failed to issue a battery storage request for proposals ("RFP"), (5) failed to consider potential mechanisms for lowering battery storage pricing, and (6) relied on past performance of *pumped* storage systems as evidence, without assessing whether battery storage systems would be subject to the same constraints.[95] Rather than conducting the required thorough review, EKPC simply wrote off the potential for battery storage to serve its needs—which EKPC attempts to again do in its

[91] EKPC Initial Post-Hearing Br. at 25.
[92] *Id*. at 25 n.160.
[93] Stanton Revised Direct 42:1-10.
[94] Final Order, *In re Electronic Application of East Kentucky Power Cooperative Inc. for a (1) CPCN for the Construction of Transmission Facilities in Madison County, Kentucky; and (2) Declaratory Order Confirming That a CPCN Is Not Required for Certain Facilities*, Case No. 2022-00314, at 8 (Feb. 23, 2023).
[95] Stanton Revised Direct at 33-41; JI Post-Hearing Br. at 53-60.

Post-Hearing Brief—but this is not enough to fulfill EKPC's obligation to avoid wasteful duplication

In addition to failing to show that EKPC conducted a thorough review, EKPC's four-sentence discussion of BESS fails to justify EKPC's cursory dismissal of the resource. EKPC seems to imply that battery storage was not a reasonable alternative based on the semantic point that it is "storage" and not "generation."[96] However, the important question—which EKPC fails to sufficiently address—is whether battery storage could help meet EKPC's winter peak needs. As Dr. Stanton testified, battery storage has served that role in ERCOT, and there is strong reason to think that it could serve the same role in EKPC's service territory.[97] In ERCOT, battery storage "kept the lights on and averted a load shedding event by dispatching nearly 2GW when ERCOT operating reserves reached their minimum on September 6th, 2023 and emergency conditions (EEA2) were declared."[98] It also saved $750 million in day-ahead costs, or $683 million in real-time costs, by freeing gas capacity for power generation during the January 2024 winter freeze.[99] Regardless of whether BESS is "generation" or "storage," EKPC should have assessed whether it could provide similar benefits in its service territory.

EKPC also claimed in its Post-Hearing Brief that BESS acts "as a 'time machine' to move electricity from one point in time to another," and that "EKPC would need excess generation in order to be able to charge the batteries."[100] But Aurora Energy Research's report on battery storage in ERCOT, which Dr. Stanton submitted with her testimony, suggests that this

[96] EKPC Post-Hearing Br. at 25.
[97] Stanton Revised Direct at 39:1-11.
[98] Stanton Revised Direct, Exhibit EAS-4, Connor McMann, Role of Battery Energy Storage Systems (BESS) in the ERCOT Market, Aurora Energy Research, at 2 (May 2024) ("Exhibit EAS-4"); *see* Stanton Revised Direct at 39:7-9.
[99] Exhibit EAS-4 at 2; *see* Stanton Revised Direct at 39:9-11.
[100] EKPC Post-Hearing Br. at 25.

"time machine" quality of battery storage could in fact lessen the need for additional generation. As that report explains, "[a]cting as both load *and generation*, BESS charge when power is cheap and demand is low, and discharge when power is expensive and demand is high."[101] EKPC had a duty to meaningfully assess whether battery storage's ability to charge when demand is low and discharge when demand is high could have ameliorated at least some of its claimed capacity need, rather than simply assume it would have the opposite effect. EKPC's failure to do so constitutes wasteful duplication.

Finally, EKPC's brief suggests that cost justifies its cursory dismissal of battery storage. EKPC claims that "BESS is extremely expensive based on EKPC's information as well as the information provided by KU/LG&E in Case No. 2025-00045."[102] Joint Intervenors' Post-Hearing Brief—along with Dr. Stanton's testimony—already explains why EKPC's cost argument fails. EKPC did not pursue New ERA funding that numerous other rural electric cooperatives have been approved to receive for BESS projects, and the cost estimates on which EKPC relies do not factor in the significant cost savings from the Investment Tax Credit for energy storage provided under the Inflation Reduction Act.[103] EKPC's Post-Hearing Brief—like EKPC Witness Tucker's rebuttal testimony before it—also ignores Dr. Stanton's analysis of NREL data published in 2024, which demonstrate meaningfully lower costs for battery storage systems than the sources on which EKPC relies.[104] Lastly, as Joint Intervenors noted in their Post-Hearing Brief, EKPC's reliance on LG&E/KU's cost estimate in Case No. 2025-00045 is misplaced for at least two

[101] Exhibit EAS-4 at 3 (emphasis added).
[102] EKPC Post-Hearing Br. at 25.
[103] JI Post-Hearing Br. at 57-58.
[104] *Id*. at 59; Stanton Revised Direct at 36:11-37:6 (citing Nat'l Renewable Energy Lab., 2024 Annual Technology Baseline [Workbook] (June 25, 2024): ps://data.openei.org/files/6006/2024%20v2%20Annual%20Technology%20Baseline%20Workbook%20Errata%207-19-2024.xlsx [retrieved from Nat'l Renewable Energy Lab., Electricity Annual Technology Baseline (ATB) Data Download, https://atb.nrel.gov/electricity/2024/data (last visited Feb. 14, 2025)]).

reasons.[105] First, the record in that case is still developing, and the Commission and other parties in that proceeding have not had the opportunity to weigh in on the reasonableness of LG&E/KU's cost estimate. Second, the self-build battery storage project proposed in Case No. 2025-00045 was not the result of an RFP process,[106] meaning that it may also fail to reflect current real-world costs and operational characteristics. EKPC has therefore not established that the cost of battery storage is a valid excuse for failing to thoroughly review the role it could play in the best combination of resources for meeting EKPC's claimed need.

VI. EKPC has not established the technical feasibility of co-firing Spurlock 3 and 4 with gas.

EKPC's Post-Hearing Brief does not address a major flaw in its Spurlock co-firing proposal: the unsubstantiated technical feasibility of co-firing Spurlock 3 and 4 with gas.[107] In arguing that construction of its proposed projects would not result in wasteful duplication, EKPC claims that it has "provided evidence throughout the proceeding that" the projects, including "the Spurlock units[,] are the least costly and most reasonable options for the generation EKPC needs."[108] However, EKPC has thus far not produced what is apparently its central piece of evidence on this point: the Reaction Engineering report ("REI report") that allegedly shows – contrary to previous EKPC statements that Spurlock 3 and 4 could not be co-fired with gas – that gas co-firing at Spurlock Units 3 & 4 "appears technically feasible."[109] In the absence of this report—which neither the Commission nor any intervenor has yet been able to review—EKPC

[105] JI Post-Hearing Br. at 59 n.201.
[106] Direct Testimony of Charles R. (Chuck) Shram, *In re 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, at 12:5-7 (Feb. 28, 2025) (stating that LG&E/KU's 2024 RFP did not seek proposals for energy storage).
[107] Joint Intervenors Post-Hearing Br. at 48-51.
[108] EKPC Post-Hearing Br. at 26.
[109] *See* Joint Intervenors' Post-Hearing Br. at 48-51.

has not established that its Spurlock co-firing plan is reasonable or that it has avoided wasteful duplication.

On May 15, 2025, the Commission granted Joint Intervenors' motion to compel the REI report and ordered EKPC to file and serve the report on or before May 19, 2025.[110] Joint Intervenors intend to file supplemental briefing on this issue after reviewing the REI report, in accordance with the schedule established in the Commission's May 15th Order.

VI. Conclusion

EKPC has not met its burden to demonstrate the need for the Cooper CCGT, Cooper 2 gas co-firing, and Liberty RICE units, or that pursuing all of these projects would not lead to a lack of wasteful duplication. EKPC has also failed to sufficiently address Dr. Roumpani's reasonable recommendations for strengthening its DSM plan. For the foregoing reasons, Joint Intervenors respectfully request that the Commission grant the relief requested in the testimonies of Dr. Roumpani and Dr. Stanton.

[Signatures on following page]

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[110] Order on Motion to Compel, Case No. 2024-00370, at 11 (May 15, 2025).

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CERTIFICATE OF SERVICE

In accordance with the Commission's July 22, 2021 Order in Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19*, this is to certify that the electronic filing was submitted to the Commission on May 16, 2025; that the documents in this electronic filing are a true representation of the materials prepared for the filing; and that the Commission has not excused any party from electronic filing procedures for this case at this time.

____
Byron L. Gary