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

O R D E R

On November 25, 2024, East Kentucky Power Cooperative, Inc. (EKPC) filed an application, pursuant to KRS 278.020, KRS 278.216, KRS 278.285, 807 KAR 5:001 and other applicable law, requesting issuance of a Certificates of Public Convenience and Necessity (CPCN) to construct new generation, approval of a site compatibility certificate, approval of Demand-Side Management (DSM) tariffs, and any other relief required. A separate Order was issued on May 29, 2025, addressing the DSM tariffs.[1] This Order will address all other requests.

PROCEDURAL SCHEDULE

A procedural schedule was issued on December 5, 2024, and amended on December 20, 2024, January 8, 2025, and February 17, 2025. The Commission granted intervention to several parties: Nucor Steel Gallatin (Nucor),[2] the Attorney General, by

[1] Order (Ky. PSC May 29, 2025).

[2] Order (Ky. PSC Dec. 11, 2024).

and through the Office of Rate Intervention (Attorney General),[3] and the Joint Intervenors[4] (individually, Mountain Association, Appalachian Citizens' Law Center, and Kentuckians for the Commonwealth).

EKPC responded to five requests for information from Commission Staff,[5] two requests for information from the Attorney General,[6] and two requests for information from Joint Intervenors.[7] On February 12, 2025, the Commission incorporated a portion of the record of Case No. 2024-00310 in the record of this proceeding.[8] The Joint Intervenors filed the testimony of Dr. Maria Roumpani and Dr. Elizabeth Stanton.[9] The Commission issued an Order allowing the Joint Intervenors to file supplemental testimony as well as changed the date for EKPC to file rebuttal testimony.[10] However, Joint Intervenors did

[3] Order (Ky. PSC Dec. 6, 2024).

[4] Order (Ky. PSC Jan. 6, 2025).

[5] EKPC's Response to Commission Staff's First Request for Information (Staff's First Request) (filed Jan. 3, 2025); EKPC's Response to Commission Staff's Second Request for Information (Staff's Second Request) (filed Jan. 31, 2025); EKPC's Response to Commission Staff's Third Request for Information (Staff's Third Request) (filed Mar. 7, 2025); EKPC's Response to Commission Staff's Fourth Request for Information (Staff's Fourth Request) (filed Mar. 17, 2025); EKPC's Response to Commission Staff's Fifth Request for Information, (Staff's Fifth Request) (filed Mar. 26, 2025).

[6] EKPC's Response to Attorney General's First Request for Information (Attorney General's First Request) (filed Jan. 3, 2025); EKPC's Response to Attorney General's Second Request for Information (Attorney General's Second Request) (filed Jan. 31, 2025).

[7] EKPC's Response to Joint Intervenors' First Request for Information (Joint Intervenors' First Request) (filed Jan. 10, 2025); EKPC's Response to Joint Intervenors' Second Request for Information (Joint Intervenors' Second Request) (filed Jan. 31, 2025).

[8] Order (Ky. PSC Feb. 12, 2025).

[9] Direct Testimony of Maria Roumpani (Roumpani Direct Testimony) (filed Feb. 14, 2025); Direct Testimony of Elizabeth Stanton (Stanton Direct Testimony) (filed Feb. 14, 2025). The Joint Intervenors filed revised direct testimony on Feb. 20, 2025 but did not file supplemental testimony.

[10] Order (Ky. PSC Feb. 17, 2025).

not file supplemental testimony. Joint Intervenors responded to one request for information from EKPC[11] and one request for information from Commission Staff.[12]

There were several public comments filed into the case record with multiple comments supporting the project, one opposing the location of the gas pipeline, and two opposing the entirety of the project.

On April 21 and 22, 2025, the Commission held a hearing in this matter. Following the hearing, Joint Intervenors filed a motion to compel the production of the full Reaction Engineering International's report (REI report) requested in Joint Intervenors' Second Request for Information, Item 47(c).[13] EKPC filed a response to the motion on May 1, 2025,[14] and Joint Intervenors filed a response in support of their motion.[15] The Commission issued an Order compelling the production of the full REI report and amending the post-hearing procedural schedule to allow for supplemental briefing related to the REI report.[16] EKPC responded to three additional requests for information[17] and

[11] Joint Intervenors' Response to EKPC's First Request for Information (EKPC's First Request) (filed Mar. 17, 2025).

[12] Joint Intervenors' Response to Commission Staff's First Request for Information (Joint Intervenors' response to Staff's First Request) (filed Mar. 17, 2025).

[13] Joint Intervenors' Motion to Compel (filed Apr. 24, 2025).

[14] EKPC's Response to the Motion to Compel (filed May 1, 2025).

[15] Joint Intervenors' Response in Support of the Motion to Compel (filed May 1, 2025).

[16] Order (Ky. PSC May 15, 2025).

[17] EKPC's Response to Commission Staff's Post-Hearing Requests for Information (Staff's Post-Hearing Requests) (filed May 2, 2025); EKPC's Response to Nucor's Post-Hearing Requests for Information (Nucor's Post-Hearing Requests) (filed May 2, 2025); EKPC's Response to Joint Intervenors' Post-Hearing Requests for Information (Joint Intervenors' Post-Hearing Requests) (filed May 2, 2025).

each party filed an initial brief in the matter on May 6, 2025.[18] EKPC and Joint Intervenors also filed response briefs on May 16, 2025.[19] On May 19, 2025, EKPC filed the REI report requested by Joint Intervenors contemporaneously with a motion for confidential treatment.[20] On May 22, 2025, Joint Intervenors filed a response to the motion for confidential treatment.[21] EKPC filed a response on May 23, 2025,[22] and a third supplemental response to Joint Intervenors' Second Request for Information, Item 47 on May 27, 2025.[23] On May 29, 2025, the Commission issued an Order addressing EKPC's DSM tariff approval requests in the application.[24] On June 6, 2025, Joint Intervenors filed a supplemental brief addressing the REI report and EKPC filed a notice reserving the right to respond to the brief.[25] On June 11, 2025, EKPC filed a reply brief regarding the REI Report.[26] The record has closed, and the matter now stands ready for a decision.

[18] Nucor's Initial Post-Hearing Brief (Nucor's Initial Brief) (filed May 6, 2025). Attorney General's Initial Post-Hearing Brief (Attorney General's Initial Brief) (filed May 6, 2025). Joint Intervenors' Initial Post-Hearing Brief (Joint Intervenors' Initial Brief) (filed May 6, 2025). EKPC's Initial Post-Hearing Brief (EKPC's Initial Brief) (filed May 6, 2025).

[19] Joint Intervenor's Response Brief (filed May 16, 2025); EKPC's Response Brief (filed May 16, 2025); Nucor and the Attorney General did not file response briefs.

[20] EKPC's Motion for Confidential Treatment and EKPC's Second Supplemental Response to Joint Intervenors' Second Request for Information, Item 47 (filed May 19, 2025).

[21] Joint Intervenors' Response to Motion for Confidential Treatment (filed May 22, 2025).

[22] EKPC's Reply in Support for Confidential Treatment (filed May 23, 2025).

[23] EKPC's Third Supplemental Response to Joint Intervenors' Second Request for Information, Item 47 (filed May 27, 2025).

[24] The Commission will address the DSM Tariff effective dates in the ordering paragraphs below.

[25] EKPC's Notice Reserving the Right to File a Response to the Supplemental Brief (filed June 6, 2025); Joint Intervenors' Initial REI Brief (filed June 6, 2025).

[26] EKPC's Reply Brief Regarding the REI Report (filed Jun. 11, 2025).

BACKGROUND

EKPC is a not-for-profit, rural electric cooperative corporation established under KRS Chapter 279 with its headquarters in Winchester, Kentucky.[27] Pursuant to various agreements, EKPC provides electric generation capacity and electric energy to its 16 Owner-Member Cooperatives (Owner-Members),[28] which in turn serve over 570,000 Kentucky homes, farms and commercial and industrial establishments in 89 Kentucky counties.[29]

In total, EKPC owns and operates approximately 2,963 MW of net summer generating capacity and 3,265 MW of net winter generating capacity.[30] EKPC owns and operates coal-fired generation at the John S. Cooper Station in Pulaski County, Kentucky (341 MW) and the Hugh L. Spurlock Station (1,346 MW) in Mason County, Kentucky. EKPC also owns and operates natural gas-fired generation at the J. K. Smith Station in Clark County, Kentucky (753 MW (summer)/989 MW (winter)) and the Bluegrass Generating Station in Oldham County, Kentucky (501 MW (summer)/567 MW (winter)), landfill gas-to-energy facilities[31] in Boone County, Greenup County, Hardin County, Pendleton County and Barren County (13.8 MW total), and a Community Solar facility (8.5 MW) in Clark County, Kentucky.[32] As of the date of the filing of the application, EKPC

[27] Application at 1.

[28] Application at 1.

[29] Application at 1-2.

[30] Application at 2.

[31] Bluegrass Generating Station is described as natural gas fired in the application; however, the Commission notes that the facility is a dual-fuel facility.

[32] Application at 2.

purchased hydropower from the Southeastern Power Administration at Laurel Dam in Laurel County, Kentucky (70 MW), and the Cumberland River system of dams in Kentucky and Tennessee (100 MW).[33] EKPC noted it had 200 MWs of interruptible load and approximately 28 MWs in peak reduction mechanisms.[34] As of the date of the application, EKPC's record peak demand of 3,754 MW occurred on January 17, 2024.[35]

As of the date of the filing of this application, EKPC had 77 free-flowing interconnections with its neighboring utilities.[36] EKPC's transmission system is operated by PJM Interconnection, LLC (PJM), of which EKPC has been a fully integrated member since June 1, 2013. PJM is a regional transmission organization (RTO) regulated by the Federal Energy Regulatory Commission (FERC).[37]

LEGAL STANDARD

Under KRS 278.262 "reliability" is defined as "having adequate electric generation capacity to safely deliver electric energy in the quantity, with the quality, and at the time that the utility customer demand." Furthermore, KRS 278.262 defines "resilience" as "having the ability to quickly and effectively respond to and recover from events that compromise grid reliability."

Under KRS 278.030(2) every utility is required to furnish adequate, efficient and reasonable services to its customers. KRS 278.010(14) provides the definition of "adequate service" as follows:

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[33] Application at 2.

[34] Application at 2.

[35] Application at 2.

[36] Application at 2.

[37] PJM - PJM History Last accessed April 3, 2025.

> "Adequate service" means having sufficient capacity to meet the maximum estimated requirements of the customer to be served during the year following the commencement of permanent service and to meet the maximum estimated requirements of other actual customers to be supplied from the same lines or facilities during such year and to assure such customers of reasonable continuity of service.[38]

The Commission's standard of review of a request for a CPCN is well settled. Pursuant to KRS 278.020(1), no utility may construct or acquire any facility to be used in providing utility service to the public until it has obtained a CPCN from this Commission. To obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.[39]

"Need" requires

> [A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated.
>
> [T]he inadequacy must be due either to a substantial deficiency of service facilities, beyond what 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.[40]

"Wasteful duplication" is defined as "an excess of capacity over need" and "an excessive investment in relation to productivity or efficiency, and an unnecessary

[38] KRS 278.010(14).

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

[40] *Kentucky Utilities Co*. at 890.

multiplicity of physical properties."[41] To demonstrate that a proposed facility does not result in wasteful duplication, the Commission has held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed.[42] The selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.[43] All relevant factors must be balanced.[44]

Pursuant to KRS 278.020(1)(e), unless a CPCN is exercised within one year from the date the CPCN is granted by order, the authority conferred by the issuance of a CPCN, is void. Additionally, KRS 278.020(1)(e) further provides that the beginning of any new construction in good faith within the time prescribed by the Commission and the "prosecution" of the construction with "reasonable diligence" constitutes an exercise of authority under the CPCN.

The site compatibility certificate is governed, in part, by KRS 278.216. KRS 278.216(1) states that "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." KRS 278.216(3) states that the Commission may deny an application for a site

[41] *Kentucky Utilities Co.* at 890.

[42] Case No. 2005-00142, *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* (Ky. PSC Sept. 8, 2005).

[43] See *Kentucky Utilities Co. v. Pub. Sew. Comm'n*, 390 S.W.2d 168, 175 (Ky. 1965). *See also* Case No. 2005-00089, *Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 138 kV Electric Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005)

[44] Case No. 2005-00089, August 19, 2005 Order at 6.

compatibility certificate or require reasonable mitigation of impacts disclosed in the site assessment report, but the Commission shall, in no event, order relocation of the facility.

KRS 278.216(2) states that:

> 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).

The requirement that a utility file a site assessment report (SAR), like those filed before the siting board when a merchant generator seeks to obtain a construction certificate, indicates that the legislature intended for the Commission to consider the factors discussed in the SAR when determining whether to approve a site compatibility certificate or impose mitigation measures.[45] However, KRS 278.216(2) also states that "[a] utility may submit and the commission may accept documentation of compliance with the National Environmental Policy Act (NEPA) rather than a site assessment report," which indicates that the Commission is able to consider other factors, at least compliance with NEPA, in lieu of at least certain factors in the SAR.

KRS 278.708(3) and (4), which are written in reference to merchant generating facilities as opposed to utility owned facilities, state that the SAR shall include (1) a detailed description of the proposed site, including surrounding land uses, legal boundaries of the proposed site, proposed access control to the site, the location of facility

[45] See Case No. 2014-00133, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Site Compatibility Certificates for the Construction of a Combined Cycle Combustion Turbine at the Green River Generating Station and a Solar Photovoltaic Facility at the E.W. Brown Generating Station* (Ky. PSC Dec. 19, 2014), Order at 2–3 (applying factors required to be discussed in the SAR when granting the site compatibility certificate for a solar facility).

buildings, transmission lines, and other structures, the location of use of access ways, internal roads, and railways, compliance with applicable setback requirements as provided under KRS 278.704(2), (3), (4), or (5), and evaluation of the noise levels expected to be produced by the facility; (2) an evaluation of the compatibility of the facility with scenic surroundings; (3) potential changes in property values and land use resulting from the siting, construction, and operation of the proposed facility for property owners adjacent to the site; (4) evaluation of anticipated peak and average noise levels associated with the facility's construction and operation at the property boundary; (5) the impact of the facility's operation on road and rail traffic to and within the facility, including anticipated levels of fugitive dust created by the traffic and any anticipated degradation of roads and lands in the vicinity of the facility; and (6) any mitigating measures to be suggested by EKPC to minimize or avoid adverse effects identified in the SAR.

In relevant part, KRS 278.704(2) states that:

> For purposes of applications for site compatibility certificates pursuant to KRS 278.216, only the exhaust stack of the proposed facility to be actually used for coal or gas-fired generation … shall be required to be at least one thousand (1,000) feet from the property boundary of any adjoining property owner and two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility.

Notably, the reference to site compatibility certificates required pursuant to KRS 278.216, which are only required for utilities as defined by KRS 278.010, indicates that the legislature intended for KRS 278.704(2) to establish explicit setback requirements for utilities that must be met in order to obtain a site compatibility certificate. However, KRS 278.216(4) allows the Commission to:

> [g]rant 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 [cumulative environmental assessment], 278.010 [definitions statute], 278.212 [cost of transmission upgrades for interconnection by merchant generators], 278.214 [governing interruption of service], 278.218 [ownership change statute], and 278.700 to 278.716 [siting board statutes] at a distance closer than those provided by the applicable setback requirements.

Thus, while KRS 278.216 generally allows other factors included in the SAR to be weighed to determine whether to grant a site compatibility certificate, KRS 278.704(2) establishes explicit setback requirements that must be met for a utility to obtain a site compatibility certificate, unless the utility can establish that it is entitled to a deviation pursuant KRS 278.216(4).

KRS 278.704(3) states that local planning and zoning commissions may establish setback requirements from a property boundary, residential neighborhood, school, hospital, or nursing home facility, which shall have primacy over statutory setback requirements, "[i]f the merchant electric generating facility is proposed to be located in a county or a municipality with a planning and zoning commission."

Pursuant to KRS 164.2807, before a utility proposes to retire any existing coal generating plant, it must give notice to the Energy Planning and Inventory Commission (EPIC) at least 180 days prior to submitting an application for retirement to the Public Service Commission.[46]

[46] KRS 164.2807(7)(b).

THE PROPOSED PROJECTS

In its application, EKPC requested approval of three separate CPCNs, which included constructing a Combine Cycle Gas Turbine (CCGT) at the John Sherman Cooper Power Station (Cooper Station), converting Cooper Unit 2 to co-fire with natural gas, and converting Units 1-4 at the Hugh L. Spurlock Station (Spurlock Station) to co-fire with natural gas and the associated infrastructure required for each project.[47] Along with the CPCN requests, EKPC requested a site compatibility certificate[48] and for the Commission to understand that the CCGT will reduce future development risks for replacement capacity.[49] A further description of each project is below.

Cooper Station Combined Cycle Gas Turbine (CCGT)

Cooper Station, located near Somerset, Kentucky, currently has two operating pulverized coal generating units rated at 114 MW (Unit 1) and 230 MW (Unit 2) for a total active capacity of 344 MW.[50] Both units are wholly owned and operated by EKPC.[51] The proposed Cooper CCGT Project consists of constructing a new 745 MW[52] combined cycle electric generating facility at the existing Cooper Station site.[53] According to EKPC, the

[47] Application at 3.

[48] Application at 11.

[49] Application at 13.

[50] Application, Direct Testimony of Brad Young (Young Direct Testimony) (filed Nov. 20, 2024), Attachment BY-1 at 1-1.

[51] Young Direct Testimony, Attachment BY-1 at 1-1.

[52] The Commission notes that this figure is not consistently reflected throughout the application. The figure reads as both 745 MW and 775 MW in various areas throughout the record; however, given that the 745 MW figure is reflected more frequently, the Commission reads 745 MW as the intended correct figure.

[53] Application at 5; Direct Testimony of Julia Tucker (Tucker Direct Testimony) (filed Nov. 20, 2024) Application Exhibit 3, at 21.

facility is designed to operate reliably and provide dispatchable power, utilizing a modern two-on-one unfired combined cycle configuration.[54] Specifically, the project will incorporate two natural gas-fired F-Class combustion turbines, two heat recovery steam generators (HRSGs), and one steam turbine generator, ensuring energy conversion and operational flexibility.[55]

Additionally, the project entails the installation of a new Meter and Regulation (M&R) station and a dedicated natural gas pipeline to deliver gas at a minimum pressure of 600 pounds per square inch gauge (PSIG).[56] The natural gas pipeline will serve both the CCGT as well as the co-firing of Cooper Unit 2 as discussed below. Two fuel oil (FO) storage tanks will be installed within concrete secondary containment structures to support emergency backup operations, complete with redundant offloading and forwarding pumps.[57] The FO storage tanks are designed to provide 72 hours of fuel while firing at full load.[58]

A new 161 kV switchyard will be installed to interconnect the output from the CCGT generating unit to the existing high voltage transmission lines on the site. Existing transmission lines that interfere with the new equipment will be relocated to the north end of the access road, south of the landfill.[59] Makeup raw water will be sourced from Lake

[54] Application at 5; Tucker Direct Testimony at 21.

[55] Application at 5; Tucker Direct Testimony at 21.

[56] Application at 5.

[57] Application at 5.

[58] Young Direct Testimony, Attachment BY-1 at 1-2.

[59] Young Direct Testimony, Attachment BY-1 at 1-2.

Cumberland at the existing Unit 2 intake using new makeup pumps.[60] The raw water will be clarified and stored on-site in a new 400,000-gallon tank prior to being pumped to the cooling tower for makeup water.[61] The clarified water tank is sized to provide two hours of surge/make-up water to the cooling tower at summer base load operation.[62] This clarified water tank will also feed a filtration system prior to being stored on-site in a 400,000 gallon service/fire water tank.[63] Fire water volume will be kept separate by use of a standpipe.[64] This separate tank provides storage capacity for all fire suppression water needs for the new facility, along with any service water users.[65] The clarified water tank also feeds additional filtration and reverse osmosis skids to create demineralized water for cycle makeup and combustion turbine FO firing.[66] The demineralized water will be stored in a 1,500,000-gallon tank, sized for 72 hours of operation on FO at full load.[67]

In addition to the aforementioned switchyard and transmission line relocations, EKPC listed several transmission line projects that would be required to handle the new capacity. The following projects[68] were identified as being required to be completed prior to commercial operation of the facility:

[60] Young Direct Testimony, Attachment BY-1 at 1-2.

[61] Young Direct Testimony, Attachment BY-1 at 1-2 and 1-3.

[62] Young Direct Testimony, Attachment BY-1 at 1-3.

[63] Young Direct Testimony, Attachment BY-1 at 1-3.

[64] Young Direct Testimony, Attachment BY-1 at 1-3.

[65] Young Direct Testimony, Attachment BY-1 at 1-3.

[66] Young Direct Testimony, Attachment BY-1 at 1-2.

[67] Young Direct Testimony, Attachment BY-1 at 1-2.

[68] Young Direct Testimony, Attachment BY-1 at 3-17 and 3-18.

1. All 161kV and 69kV circuit breakers at the existing Cooper Substation will need to be replaced with circuit breakers rated at 63kA fault current rating.

2. Upgrade the 161 / 69 kV transformer at Cooper Substation to a 200MVA unit. A spare unit will also be purchased and held in reserve.

3. Maximum conductor operating temperature will need to be increased to 212 degrees Fahrenheit on the Casey County – Marion County 161kV transmission line, necessitating the replacement of approximately 17.8 miles of existing line.

4. Rebuild the South Lancaster-Garrard County 69 kV line using 556 ACSR conductor. Transmission line is approximately 1.8 miles in length.

5. Rebuild the existing 161kV line to Elihu sub. The line will tap the double circuit section at the first junction. The rebuild is 4.2 miles of single circuit rebuild replacing structures in place.

6. Kentucky Utilities upgrade on the Alcade-Farley 161kV transmission line. This transmission line is approximately 27.19 miles in length.

7. Kentucky Utilities upgrade on the Farley-Artemus Tap 161kV transmission line. This transmission line is approximately 12.77 miles in length.

8. Kentucky Utilities rebuilds the Lebanon-Springfield 69kV transmission line. This transmission line is approximately 7.2 miles in length.

9. Kentucky Utilities rebuilds the Alcade-Elihu 161kV transmission line. This transmission line is approximately 2.95 miles in length.

10. Kentucky Utilities to expand the Alcade 161kV substation for the new 161kV transmission line exit to Cooper Substation.

11. Kentucky Utilities to construct a 345kV bus at the Alcade Substation and install a second Alcade 345/161kV transformer.

The cost of this project, excluding the natural gas line, is approximately $1.37 billion.[69] EKPC estimated an in-service date for the CCGT of December 2030.[70] The information related to the natural gas supplier request for proposal was provided as well as a schedule of the natural gas pipeline projects for both Cooper Station and Spurlock Station.[71] According to EKPC, the estimated cost of the natural gas pipeline to serve Cooper Station is $371 million.[72]

Natural Gas Infrastructure

EKPC proposed to contract with [redacted] to expand its natural gas infrastructure with an extension to run the pipelines to EKPC's property, which consists of approximately 40 miles to the Cooper Station and 40 miles to the Spurlock Station.[73] According to the contracts, EKPC will not be responsible for the construction, procurement, or maintenance as it relates to the natural gas line or natural gas service,[74] and as such, did not request an additional CPCN.

[69] Young Direct Testimony at 5.

[70] Young Direct Testimony at 8.

[71] Application, Direct Testimony of Mark Horn (Horn Direct Testimony) (filed Nov. 20, 2024); Horn Direct Testimony, Attachment 3.

[72] EKPC's Response to Staff's Post Hearing Request, Item 16.

[73] EKPC's Response to Attorney General's First Request, Item 5 and EKPC's Response to Staff's Post Hearing Request, Item 3, CONFIDENTIAL Attachment: Amended and Restated Pulaski Project Agreement and CONFIDENTIAL Attachment: Maysville Project Precedent Agreement.

[74] EKPC's Response to Staff's Post Hearing Request, Item 3, CONFIDENTIAL Attachment: Amended and Restated Pulaski Project Agreement and CONFIDENTIAL Attachment: Maysville Project Precedent Agreement.

The pipeline capital costs will be passed on to EKPC and will ultimately increase the total costs for supplying gas to the units.[75] In addition to the commodity cost of delivered fuel, a fixed cost of $45,056,102 per year for 20 years was assumed for both Cooper and Spurlock in EKPC's model.[76] EKPC noted that after the 20 years, the contract price will then be reflected in the then current tariff rate for capacity only.[77] However, if other third-party shippers connect to the expansion project pipeline, EKPC's rate will be reduced based on the third-party's volume of gas and time remaining in the initial term.[78]

Cooper Station Unit 1

Cooper Station Unit 1 is a one hundred (100) MW coal fired unit that currently does not have a Selective Catalytic Reduction (SCR) system installed for reduction of nitrous oxide emissions, which may become a requirement to continue operating under current and future Environmental Protection Agency (EPA) regulations.[79] Although EKPC did not request that the Commission make a decision regarding the retirement of Cooper Unit 1;[80] it opined that it was prudent to assure that the requisite replacement capacity is available and online before retiring a unit pursuant to applicable law.[81] According to EKPC, in order to eventually be able to retire Cooper Unit 1, EKPC must comply with KRS 278.264(2)(d) which encourages a utility to have the replacement generating

[75] EKPC's Response to Attorney General's First Request, Item 5.

[76] EKPC's Response to Joint Intervenors' Post Hearing Request, Item 12.

[77] EKPC's Response to Joint Intervenors' Post Hearing Request, Item 12.

[78] EKPC's Response to Joint Intervenors' Post Hearing Request, Item 12.

[79] Application, Direct Testimony of Don Mosier (Mosier Direct Testimony) at 16.

[80] Application at 13.

[81] Application at 13-14.

capacity fully constructed, permitted, and in operation prior to commencing retirement or decommissioning of a coal-fired generating unit.[82] As such, EKPC requested that the Commission understand that the proposed CCGT reduces future development risk for replacement capacity associated with Cooper Unit 1.[83] EKPC stated that between the 2029 and 2030 planning years, it intended to place Cooper Unit 1 into an "emergency" status and to withdraw the unit from the PJM capacity market, for which PJM requires three years notice.[84] EKPC has notified PJM that EKPC intends to retire Cooper Unit 1 on or about December 31, 2030.[85]

Cooper Station Unit 2

Cooper Unit 2 is a coal pulverizing generation facility rated at 225 net MW.[86] According to EKPC, the proposed Cooper Unit 2 project will provide operational flexibility by allowing for firing using 100 percent coal, 100 percent natural gas, and co-firing on a blended fuel depending on which coal mills are in service.[87] EKPC intends to leave the existing FO system capacity to allow for startup on FO.[88] According to the project scoping report, the proposed Cooper Unit 2 co-firing project involves significant upgrades to enable fuel gas firing capabilities for 100 percent of its required heat input while retaining current coal-firing capabilities. The existing boiler, originally designed by Babcock &

[82] Mosier Direct Testimony at 17.

[83] Application at 13-14.

[84] EKPC's Response to Staff's Second Request, Item 13.

[85] EKPC's Supplemental Response to Staff's Third Request (filed Apr. 11, 2025), Item 12.

[86] Young Direct Testimony, Attachment BY-2 at 1-1.

[87] Young Direct Testimony, Attachment BY 2 at 1-1.

[88] Young Direct Testimony, Attachment BY-2 at 1-1.

Wilcox (B&W) and placed into operation in 1969, has 18coal-fired burners and fuel oil-fired igniters..[89] Each burner and igniter will be upgraded to include fuel gas firing capabilities up to 100 percent of the required heat input, while maintaining its current coal capabilities.[90] The fuel gas system will be supplied by the proposed M&R station to be located northwest of the plant, delivering natural gas at approximately 600 PSIG with regulated pressure ranging from 40 to 80 degrees Fahrenheit.[91] Pressure will subsequently be reduced to 200 PSIG via a new Fuel Gas Conditioning (FGC) yard before being delivered to the burners.[92]

The 18 retrofitted burners will be paired into groups of three.[93] Each group of three burners will operate simultaneously in alignment with existing coal mill arrangements, and each group will have a dedicated Safety Shut Off (SSO) skid.[94] Igniters will follow a similar arrangement, with individual SSO skids for each.[95] The FO igniter system's existing capacity will remain unchanged, with controls integrated into the burner management system (BMS).[96] Enhanced control of the upgraded equipment will be achieved primarily through an expanded Distributed Control System (DCS), supplemented by Programmable Logic Controllers (PLCs) for gas conditioning equipment and the M&R

[89] Young Direct Testimony at 12-13.

[90] Young Direct Testimony at 13.

[91] Young Direct Testimony at 13.

[92] Young Direct Testimony at 13; Young Direct Testimony, Attachment BY-2 at 1-1.

[93] Younger Direct Testimony at 13.

[94] Young Direct Testimony at 13; Young Direct Testimony, Attachment BY-2 at 1-1.

[95] Young Direct Testimony at 13; Young Direct Testimony, Attachment BY-2 at 1-1.

[96] Young Direct Testimony at 13; Young Direct Testimony, Attachment BY-2 at 1-1.

station.[97] EKPC does not propose to modify the compressed air system as part of the co-firing project.[98] Air consumption at each burner and igniter is not anticipated to change as the air users will either be on the coal burner or on the FG burner, but not on both at the same time.[99]

According to the project scoping report, the existing air pollution control devices downstream of the Cooper Unit 2 boiler include a selective catalytic reducer (SCR), a Circulating Dry Scrubber (CDS), and a fabric filter (FF).[100] Each of these systems will remain in the gas path while firing on any blend of coal and natural gas.[101] The SCR will be utilized to reduce nitrogen oxides (NO_x) emissions while firing on all fuels.[102] The CDS/FF will be utilized to reduce sulfur dioxide (SO_2) while firing most coal blends.[103] However, EKPC anticipates that, at high blends of natural gas co-firing, the uncontrolled SO_2emission rate will be below the permit limit and the effectiveness of the CDS/FF will be greatly reduced or cease removing SO_2.[104] Under these higher gas blends the CDS will remain in the gas path but may not utilize a bed to control SO_2 emissions.[105] The FF is expected to remove particulate matter (PM) with all fuel blends.[106]

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[97] Young Direct Testimony at 13-14; Young Direct Testimony, Attachment BY-2 at 1-1.

[98] Young Direct Testimony, Attachment BY-2 at 1-3.

[99] Young Direct Testimony, Attachment BY-2 at 1-3.

[100] Young Direct Testimony, Attachment BY-2 at 1-3.

[101] Young Direct Testimony, Attachment BY-2 at 1-3.

[102] Young Direct Testimony, Attachment BY-2 at 1-3.

[103] Young Direct Testimony, Attachment BY-2 at 1-3.

[104] Young Direct Testimony, Attachment BY-2 at 1-3.

[105] Young Direct Testimony, Attachment BY-2 at 1-3.

[106] Young Direct Testimony, Attachment BY-2 at 1-3.

The estimated cost for the Cooper Co-Fire Project is $73.8 million.[107] There are no additional transmission line projects proposed for this portion of the project.[108] Commercial operation is expected to be achieved by December 2030 to comply with the requirements of the Greenhouse Gas (GHG) Rule.[109]

Spurlock Station – Spurlock Units 1-4.

EKPC proposed to modify all four units at Spurlock Station for up to 50 percent dual fuel operation.[110] The proposed project will allow Spurlock Units 1, 2, 3, and 4 to operate on 100 percent coal and co-fire up to a maximum of 50 percent natural gas and 50 percent coal by heat input at full load.[111] EKPC proposed Spurlock Units 1, 2, 3, and 4 retain their existing FO capabilities for startup.[112]

Spurlock Unit 1 is rated a 300 net MW generating unit.[113] Spurlock Unit 1, an opposed wall-fired boiler designed by B&W, began commercial operation in 1977.[114] It utilizes 24 coal-fired burners, eight coal mills, FO igniters, and is equipped with environmental controls including low NO_x burners, a SCR system, an electrostatic

[107] Young Direct Testimony at 14.

[108] Young Direct Testimony at 15.

[109] Young Direct Testimony at 15. The application testimony reflected the GHG rules as of the filing date.

[110] Young Direct Testimony, Attachment BY-3 at 1-1.

[111] Young Direct Testimony, Attachment BY-3 at 1-1.

[112] Young Direct Testimony, Attachment BY-3 at 1-1.

[113] Young Direct Testimony, Attachment BY-3 at 1-1.

[114] Young Direct Testimony at 15.

precipitator (ESP), an induced draft (ID) fan, a wet flue gas desulfurization (FGD) system, and a wet ESP.[115]

Spurlock Unit 2, a tangentially fired boiler designed by Alstom Combustion Engineering (Alstom), is a 510 net MW generating unit (plus 30 MW equivalent for steam supply to an off-site paper mill), originally placed into operation in 1981.[116] It operates 20 coal-fired burners across five coal mills, with FO ignition at each boiler corner.[117] Spurlock Unit 2 similarly includes low NO_x burners, Close Coupled Overfire Air (CCOFA), Separated Overfire Air (SOFA), an SCR, an ESP, an ID fan, and wet FGD and ESP systems.[118]

Spurlock Unit 3, a 268 net MW generating unit, and Spurlock Unit 4, a 268 net MW generating unit, are both Alstom Circulating Fluidized Bed (CFB) boilers that began operation in 2005 and 2009, respectively.[119] Each unit is equipped with limestone injection, a Selective Non-Catalytic Reduction (SNCR) system, baghouse filtration, and ID fans.[120]

To enable co-firing with natural gas, a new M&R station will be constructed to deliver gas at approximately 200 PSIG and temperatures between 40°F and 80°F to a

[115] Young Direct Testimony at 15.

[116] Young Direct Testimony at 15; Young Direct Testimony, Attachment BY-3 at 1-1.

[117] Young Direct Testimony at 15.

[118] Young Direct Testimony at 15.

[119] Young Direct Testimony at 16; Young Direct Testimony, Attachment BY-3 at 1-2.

[120] Young Direct Testimony at 16.

new FGC yard before distribution to the units.[121] Each unit will be capable of burning up to 50 percent natural gas.[122]

At Spurlock Unit 1, twelve burners (six on the front and six on the rear wall) of the 24 burners will be replaced with dual-fuel burners grouped by coal mill.[123] Gas flow will be regulated through two LP skids and individual SSO valves for each burner.[124] Igniters will also be grouped with dedicated SSOs.[125]

Spurlock Unit 2 will receive eight new gas burners and igniters, installed two per corner and managed by a single LP skid with SSOs for each burner and igniter set.[126]

Spurlock Units 3 and 4 will each be fitted with 16 gas lances, nine on the rear wall and seven on the front wall.[127] Gas flow will be controlled through two LP skids per unit, with lances grouped under shared or individual SSOs as appropriate.[128] The existing FO systems for Spurlock Units 3 and 4 will not be modified.[129]

According to the project scoping report, the existing air pollution control devices downstream of the Spurlock Units 1 - 4 boilers will remain in the gas path while firing on any blend of coal or natural gas.[130] Spurlock Unit 1 and Spurlock Unit 2 control systems

[121] Young Direct Testimony at 16.

[122] Young Direct Testimony at 16.

[123] Young Direct Testimony at 16.

[124] Young Direct Testimony at 16.

[125] Young Direct Testimony at 16.

[126] Young Direct Testimony at 16-17.

[127] Young Direct Testimony at 17.

[128] Young Direct Testimony at 17.

[129] Young Direct Testimony at 17.

[130] Young Direct Testimony, Attachment BY-3 at 1-3.

include an SCR, an ESP, a wet FGD system, and a wet ESP.[131] The Spurlock Unit 3 and Spurlock Unit 4 control systems include limestone boiler injection, an SNCR, a NIDS, and a baghouse. According to the report, the SCRs and SNCRs will be utilized to reduce NO_x emissions while firing on all fuels, and the wet scrubbers and NIDS will be utilized to reduce sulfur dioxide (SO_2) while firing on all fuel blends.[132] The ESP's and baghouses will be utilized to reduce particulate matter (PM) with all fuel blends. The wet ESPs will be utilized to reduce PM and sulfuric acid (H_2SO_4) on all fuel blends. The only modifications anticipated to the pollution control systems as part of the natural gas co-firing project is a modification to the ammonia feed system to accommodate potentially lower ammonia feed rates required for high natural gas blends.[133]

The research and scoping reports, however, raised concerns about the baghouse on both Spurlock Unit 3 and Spurlock Unit 4 and both units' ability to comply with the May 2024 EPA Mercury and Air Toxics Standards (MATS) Rule.[134] In response to Staff's Post-Hearing Request, EKPC provided information about several repairs being undertaken to improve compliance with MATS.[135] In addition, Reaction Engineering International (REI) utilized CFD modeling and process modeling to evaluate the expected combustion, heat transfer, and emissions impacts of co-firing coal and natural gas in Spurlock Unit 3.[136]

[131] Young Direct Testimony, Attachment BY-3 at 1-3.

[132] Young Direct Testimony, Attachment BY-3 at 1-3.

[133] Young Direct Testimony, Attachment BY-3 at 1-3.

[134] EKPC's Response to Staff's Third Request, Item 5. Cooper Unit 2 and Spurlock Units 1, 2, and 4 comply today with the new MATS particulate matter limitations.

[135] EKPC's Response to Staff's Post-Hearing Request, Item 24.

[136] A summary of the report was provided in EKPC's Response to Joint Intervenors' Second Request, Item 47. After the hearing, on May 15, 2025, the Commission ordered the entirety of the REI report to be filed in the record, and EKPC complied with that Order on May 19, 2025.

EKPC estimated the cost of conversion to co-firing for Spurlock Units 1-4, is approximately $187 million, excluding escalation.[137] Burns & McDonnell equated this to approximately $139/kW, with a total output of 1346 MW (net) for all four units.[138] Escalation is estimated to be $19.6 million assuming the project started in August 2024 and has an in-service date of the final unit (Unit 4) in mid-2029.[139] Escalation is estimated to be $41.0 million assuming full project schedule with an in-service date of the final unit (Unit 4) in December 2029.[140] A contingency of approximately $22.0 million is included in the estimate to reduce the risk of project cost overruns and accounts for variations in pricing or minor scope changes.[141] In addition, EKPC estimated the cost of the natural gas pipeline to serve Spurlock Station to be $357 million.[142]

Financial Plan for the Proposed Projects

The anticipated timing of the project expenditures are the following: 2024 $17 million, 2025 $55 million, 2026 $187 million, 2027 $273 million, 2028 $496 million, 2029 $464 million, and 2030 $86 million.[143] According to the application, initially, any expenditure related to the projects will be funded by general corporate cash and

[137] Young Direct Testimony, Attachment BY-3 at 1-5.

[138] Young Direct Testimony, Attachment BY-3 at 1-5.

[139] Young Direct Testimony, Attachment BY-3 at 1-5.

[140] Young Direct Testimony, Attachment BY-3 at 1-5.

[141] Young Direct Testimony, Attachment BY-3 at 1-5.

[142] EKPC's Response to Staff's Post-Hearing Request, Item 16. The cost of the natural gas pipeline project will be passed through in the natural gas rates paid by EKPC and pursuant to the contracts.

[143] Application, Direct Testimony of Thomas Stachnik (Stachnik Direct Testimony) (filed Nov. 20, 2024) at 5.

borrowings on the Revolving Credit Facility.[144] As of November 20, 2024, approximately $375 million of EKPC's $600 million Revolving Credit Facility was available.[145] EKPC will replace any interim financing with long-term debt under the existing trust indenture from the U.S. Department of Agriculture (USDA), Rural Utilities Service (RUS).[146] The RUS financing that EKPC will ultimately seek for these projects requires an application process.[147] Thus, EKPC stated there will be a lag in receiving funds due to pending environmental review, applications, and other procedures.[148] EKPC has discussed with RUS the possibility of advancing funds prior to the completion of the projects.[149] EKPC will seek RUS financing for the projects, for which EKPC expects to receive up to 35-year loans at interest rates of the US Treasury security rate plus 1/8 of 1 percent.[150]

BRIEF SUMMARIES

EKPC's Argument

In its post-hearing brief filed on May 6, 2025, EKPC argued that its proposed projects, including the construction of a 745 MW Combined Cycle Gas Turbine (CCGT) at Cooper Station, co-firing modifications at Cooper Unit 2 and Spurlock Units 1–4, and associated infrastructure, were necessary, cost-effective, and consistent with Kentucky's

[144] Stachnik Direct Testimony at 4.

[145] Stachnik Direct Testimony at 4.

[146] Stachnik Direct Testimony at 4.

[147] Stachnik Direct Testimony at 4.

[148] Stachnik Direct Testimony at 3-4.

[149] Stachnik Direct Testimony at 3-4.

[150] Stachnik Direct Testimony at 7.

statutory and regulatory requirements.[151] EKPC maintained that the generation resources were required to meet forecasted load growth, ensure system reliability, and mitigate exposure to increasingly volatile PJM market conditions.[152] EKPC also contended that the projects would allow it to comply with current federal environmental regulations while avoiding high-cost capacity purchases during peak winter events.[153]

EKPC asserted that it had complied with all requirements of KRS 278.216 by submitting a site assessment report addressing environmental, infrastructure, and setback considerations, as well as documentation of a NEPA environmental review conducted by the RUS.[154] EKPC highlighted that the project site was located at the existing Cooper Station, eliminating the need for setback waivers, and no party presented evidence opposing the site's compatibility.[155]

EKPC, in its brief, did not address the request that the Commission understand the CCGT reduction of replacement risk posed by the eventual retirement of Cooper Unit 1.

In its response brief filed on May 16, 2025, EKPC reaffirmed its position that the proposed generation projects were necessary, reasonable, and would not result in wasteful duplication.[156] EKPC supported its position with its 2024 Long-Term Load Forecast (LTLF), which incorporated updated reserve margin planning, detailed modeling, input from Owner-Members, and third-party validation, including approval by

[151] EKPC's Initial Brief at 2.

[152] EKPC's Initial Brief at 10-13.

[153] EKPC's Initial Brief at 27.

[154] EKPC's Initial Brief at 7.

[155] EKPC's Initial Brief at 29.

[156] EKPC's Response Brief at 2-3 and 9-10.

the RUS.[157] EKPC emphasized that the LTLF was conservative in nature and reflected historic peak demands recorded during recent winter storms.[158] It argued that failing to act now would risk insufficient capacity in the near term.[159]

EKPC, by reiterating the conservatism and rigor of its forecasting methodology, responded to Joint Intervenors' claims that EKPC had overstated load projections.[160] EKPC pointed to recent historical peaks, including those during Winter Storms Elliott, Gerri, and Enzo, as evidence that EKPC's existing winter generating capacity was already inadequate to meet native load.[161]

EKPC also addressed other alternatives such as battery energy storage systems (BESS) and expanded DSM programs.[162] EKPC argued that BESS cannot serve as generation, particularly during multi-day winter peak events, and emphasized that the DSM measures it proposed were reasonable, with implementation responsibility resting with its member cooperatives.[163]

EKPC concluded by requesting that the Commission approve all relief sought, including issuance of the CPCNs, approval of the site compatibility certificate, and

[157] EKPC's Response Brief at 4.

[158] EKPC's Response Brief at 3.

[159] EKPC's Response Brief at 7.

[160] EKPC's Response Brief at 3.

[161] EKPC's Response Brief at 3.

[162] EKPC's Response Brief at 9-10.

[163] EKPC's Response Brief at 9-10.

authorization of the DSM tariffs.[164] EKPC cautioned that failure to approve the application could delay critical capacity additions and increase overall project costs.[165]

Following the May 15, 2025 Order[166] granting Joint Intervenors' motion to compel, EKPC filed a notice to reserve its right to file a response brief.[167] EKPC filed a response brief limited to arguments regarding the REI report on June 11, 2025. EKPC noted the REI report found that it was feasible to co-fire Spurlock Units 3 and 4.[168] In addition, EKPC reiterated that it proposed a comprehensive plan to meet its generation needs.[169] EKPC argued all of the projects presented are needed, all projects are feasible, and none will result in wasteful duplication.[170]

Attorney General's Argument

The Attorney General in its brief filed May 6, 2025, argued that the Commission should "approve the CPCNs because (1) the proposed generation is necessary to maintain reliable electric service and (2) it is a cost-effective means of doing so."[171] Citing reliability concerns at the federal level and within PJM, the Attorney General emphasized that the "most important thing EKPC can do to ensure reliability of service for its ratepayers is to make sure that it generates enough electricity to serve its native load,

[164] EKPC's Response Brief at 10-11.

[165] EKPC's Response Brief at 8-9.

[166] Order (Ky. PSC May 15, 2025).

[167] EKPC's Notice to Reserve Its Right to File a Response Brief.

[168] EKPC's REI Response Brief at 2.

[169] EKPC's REI Response Brief at 2.

[170] EKPC's REI Response Brief at 2.

[171] Attorney General's Initial Brief at 3.

limiting unnecessary exposure to an increasing volatility of the market."[172] The Attorney General agreed that EKPC needs additional generation resources to serve its current and projected native load, noting that the anticipated capacity deficit will continue to grow as additional load is added.[173]

The Attorney General also argued that the proposed generation resources are cost-effective, stating that "the increases are reasonable when compared to the return of 735 MW of needed, new generation and the extended lifespan of five other units."[174] The brief further emphasized that forecasted revenues from unit dispatch within PJM are expected to exceed associated costs, yielding a net benefit to the system and ratepayers.[175]

The Attorney General did not raise specific arguments regarding EKPC's request for a site compatibility certificate.

In regard to the CCGT acknowledgment, the Attorney General argued that although EKPC claimed the letter submitted to PJM was "procedural in nature and does not reflect a definitive decision as to when Cooper Unit 1 will be retired,"[176] the Attorney General cautioned EKPC not to "put the cart before the horse regarding retirement of its existing units."[177] Furthermore, the Attorney General asserted that the General Assembly

[172] Attorney General's Initial Brief at 5.

[173] Attorney General's Initial Brief at 5.

[174] Attorney General's Initial Brief at 6.

[175] Attorney General's Initial Brief at 6.

[176] Attorney General's Initial Brief at 7, *citing* EKPC's Supplemental Response to Staff's Third Request, Item 12.

[177] Attorney General's Initial Brief at 7.

enacted laws and created EPIC to create procedures and requirements before an electric generating unit can be retired.[178] Specifically, the Attorney General provided that the policy states, "[f]urther retirement of fossil fuel-fired electric generating resources is not necessary for the protection of the environment or the health, safety, and welfare of the citizens of the Commonwealth."[179]

The Attorney General did not file a supplemental brief related to the REI Report.

Nucor's Argument

Nucor, EKPC's largest end-use customer, supported approval of the application and argues that EKPC's proposed generation projects are necessary, cost-effective, and aligned with state energy policy.[180] Nucor asserted that the 745 MW CCGT at Cooper Station, dual-fuel upgrades at Cooper Unit 2, and co-firing modifications at Spurlock Units 1–4 are, justified based on EKPC's demonstrated capacity needs and the benefits of reducing exposure to the PJM capacity and energy markets.[181]

Nucor highlighted that EKPC's $2.3778 billion investment, comprising the CCGT, unit modifications, and associated pipeline infrastructure, is the product of years of study, Board-level diligence, and consultation with experts.[182] Nucor agreed with EKPC's use of a seven percent reserve margin in both winter and summer forecasts and supports EKPC's decision to plan for native load growth while excluding speculative data center

[178] Attorney General's Initial Brief at 7.

[179] Attorney General's Initial Brief at 8, *citing* KRS 164.2807.

[180] Nucor's Initial Brief at 1.

[181] Nucor's Initial Brief at 1-2.

[182] Nucor's Initial Brief at 6-7.

loads.[183] Nucor stated that the generation investments will enable EKPC to avoid higher market-based costs, ensure system reliability, and hedge against volatile capacity pricing.[184]

Nucor emphasized the specific benefits of each component:

1. The Cooper CCGT is projected to provide $1.1 billion in energy savings and $500 million in capacity savings over ten years. It will also offer critical voltage support and benefit from favorable government-backed financing.[185]

2. The Cooper Unit 2 dual-fuel upgrade is expected to yield $117 million in energy savings and extend the unit's operating life, with a high PJM Effective Load Carrying Capability (ELCC) rating.[186]

3. The Spurlock Units 1–4 co-firing project is projected to produce $745 million in energy savings and $13.7 million in annual operation and maintenance (O&M) savings, helping preserve one of EKPC's most efficient facilities.[187]

Nucor further contended that these proposals are consistent with KRS 164.2807, which sets forth the Commonwealth's policy favoring in-state, dispatchable, and reliable electric generation.[188] Nucor also highlighted that under the Federal Power Act,

[183] Nucor's Initial Brief at 7.

[184] Nucor's Initial Brief at 8-9.

[185] Nucor's Initial Brief at 8-9.

[186] Nucor's Initial Brief at 10.

[187] Nucor's Initial Brief at 11.

[188] Nucor's Initial Brief at 7.

generation resource adequacy is the responsibility of the states, not PJM or FERC, and therefore rests with EKPC and the Commission.[189]

Nucor did not offer specific arguments regarding EKPC's request for a site compatibility certificate or the request for acknowledgment under KRS 278.264 that the proposed CCGT will eventually replace Cooper Unit 1.

Nucor concluded that the CPCNs should be approved because the proposed generation resources are needed, do not result in wasteful duplication, and align with both Kentucky's statutory obligations and long-term energy policy.[190]

Nucor did not file a supplemental brief related to the REI Report.

Joint Intervenors' Argument

In their post-hearing brief filed on May 6, 2025, Joint Intervenors argued that EKPC failed to show a need for the proposed "plan in total" and did not show that wasteful duplication would not result.[191] Joint Intervenors contended that EKPC's proposal reflected a preselected preference for the Cooper CCGT rather than the outcome of a rigorous least-cost analysis.[192] They noted that EKPC had not pursued lower-cost alternatives such as energy efficiency, DSM, or renewable energy storage, despite evidence from EKPC's own potential studies showing these as viable.[193] Joint

[189] Nucor's Initial Brief at 7.

[190] Nucor's Initial Brief at 12.

[191] Joint Intervenors' Initial Brief at 27 and 42.

[192] Joint Intervenors' Initial Brief at 41-43.

[193] Joint Intervenors' Initial Brief at 8.

Intervenors further argued that EKPC failed to model resource optimization scenarios that might have demonstrated alternatives to the CCGT.[194]

Joint Intervenors emphasized that EKPC's evidence fell short of demonstrating either the need for the proposed generation or that the proposals were the least-cost option.[195]

Joint Intervenors did not present arguments in their initial brief contesting the adequacy of EKPC's site compatibility filing, compliance with KRS 278.216, or EKPC's request for acknowledgement that the CCGT will be the eventual replacement capacity for Cooper Unit 1 under KRS 278.264.

In their response brief filed on May 16, 2025, the Joint Intervenors reiterated their position that EKPC failed to demonstrate a substantial inadequacy of existing service or to conduct a thorough evaluation of reasonable, cost-effective alternatives.[196] They argued that EKPC's reliance on claims of rising winter peak demand and system stress from PJM-wide retirements lacked evidentiary support and was contrary to EKPC's own prior Integrated Resource Plans and potential studies.[197]

Joint Intervenors rejected EKPC's assertion that prior Commission statements promoting "steel in the ground" and discouraging sustained market reliance justified the projects.[198] They maintained that such statements did not eliminate the need to evaluate

[194] Joint Intervenors' Initial Brief at 43.

[195] Joint Intervenors' Initial Brief at 39-42.

[196] Joint Intervenors' Response Brief at 2-3.

[197] Joint Intervenors' Response Brief at 3-4.

[198] Joint Intervenors' Response Brief at 7-9.

CPCN applications under the established statutory standards of necessity and absence of wasteful duplication.[199]

Joint Intervenors again did not present arguments contesting the sufficiency of EKPC's Site Assessment Report, its compliance with KRS 278.216, or EKPC's request for acknowledgement that the CCGT will be the eventual replacement capacity for Cooper Unit 1 under KRS 278.264.

In their initial REI brief, Joint Intervenors noted that EKPC called into question the technical feasibility of co-firing at Spurlock Units 3 and 4 in its own comments to the EPA, stating, "CFBs cannot co-fire natural gas because they depend upon coal ash contacting the steam generating tubes inside the furnace. Much research would need to be conducted to see if a viable alternative would be possible and economic".[200] Joint Intervenors argued that EKPC's delay in producing the REI Report until after the testimony deadline and evidentiary hearing impacted the ability to confidently determine whether the REI Report is sufficient research regarding feasibility."[201] Furthermore, Joint Intervenors provided that "evaluating the accuracy, reasonableness, and robustness of such modeling would require technical review by experts that cannot happen at this late state of the proceeding."[202] Joint Intervenors argued that the record, as it relates to the

[199] Joint Intervenors' Response Brief at 7.

[200] Joint Intervenors' Initial REI Brief at 1, *citing* Joint Intervenors' Hearing Exhibit 1, *EKPC's Comments on New Source Performance Standards for Greenhouse Gas Emission from New, Modified, and Reconstructed Fossil Fuel-Fire Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable*, Docket ID No. EPA-HQ-OAR-2023-0072-0542, at 29 (posted Aug. 10, 2023).

[201] Joint Intervenors' Initial REI Brief at 2.

[202] Joint Intervenors' Initial REI Brief at 2-3.

feasibility of co-firing Spurlock Units 3 and 4, is insufficient and that EKPC did not meet its burden of proof.[203]

CPCN DISCUSSION AND FINDINGS

As stated above, for a utility to obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.[204] Although EKPC presented a unique need for each of the separate CPCN requests, all three requests are based on the projection of load growth and a capacity shortfall, leading to both a need to maintain current generation capacity in addition to building new generation. The Commission will first address the general overall need before addressing need and lack of wasteful duplication for each proposed project.

To adequately demonstrate the need for the new generation, EKPC provided a detailed Long Term Load Forecast (LTLF) supported by an EKPC Capacity Expansion Plan, including Additional Capacity Resources.[205] To further support this need, EKPC provided a summary of Transmission System upgrades that could support the integration of the new generation and improve the reliability and stability of the transmission system.[206]

The decision to add new generation and demonstrate a regulatory need is largely impacted by the results embodied in the EKPC LTLF in this case. The LTLF is prepared

[203] Joint Intervenors' Initial REI Brief at 3.

[204] *Kentucky Utilities Co.* at 890.

[205] Direct Testimony of Julia J. Tucker (Tucker Direct Testimony), Attachment JJT-3.

[206] Direct Testimony of Darin Adams (Adams Direct Testimony) at 7-9.

every two years in accordance with EKPC's Load Forecast Work Planning Process (Work Plan), which was most recently prepared in December 2024.[207]

The Work Plan details the methodology used to develop the load forecast. According to EKPC, the Power Supply Analytics Department works with the staff of each of the 16 Owner-Member utilities to prepare each of their forecasts.[208] Once finalized, EKPC stated it aggregates all the Owner-Member forecasts then adds projections of EKPC facilities and transmission losses; incorporates energy efficiency and DSM impacts; and incorporates electric vehicle (EV) assumptions, resulting in EKPC's total system forecast.[209] EKPC stated Owner-Members use their load forecasts as input in developing construction work plans, long-range work plans, and financial forecasts.[210] EKPC uses the total system load forecast for DSM analyses, marketing analyses, transmission planning, financial forecasting and, as demonstrated in this case, power supply planning.[211] According to EKPC, factors considered in preparing the forecast include national, regional, and local economic performance; population and housing trends; service area industrial development; electric price; household income; appliance saturations and efficiencies; DSM programs; and weather.[212]

[207] Tucker Direct Testimony, Attachment JJT-2, EKPC 2025 – 2039 Load Forecast Dated December 2024 (Load Forecast) at 1.

[208] Tucker Direct Testimony, Attachment JJT-2, Load Forecast at 1.

[209] Tucker Direct Testimony, Attachment JJT-2, Load Forecast at 1.

[210] Tucker Direct Testimony, Attachment JJT-2, Load Forecast at 1.

[211] Tucker Direct Testimony, Attachment JJT-2, Load Forecast at 1.

[212] Tucker Direct Testimony, Attachment JJT-2, Load Forecast at 1.

The results of this Work Plan are embodied in the EKPC 2024 LTLF. It should be noted that the 2024 LTLF substantially alters the base demand and energy projections as compared to those used in the development of the 2022 Integrated Resource Plan (IRP), which were based on EKPC's 2020 load forecast.[213] To determine the additional capacity resources required to meet the LTLF, EKPC evaluated multiple alternatives in its 2022 IRP.[214] The alternatives evaluated were all generation alternatives, not upgrades to the transmission system. Results of that evaluation indicated that EKPC would need to install a 225 MW simple cycle combustion turbine by 2032.[215] That forecast estimated that EKPC's winter peak load would reach 3,520 MW by the 2031-2032 winter peak season.[216] However, EKPC's actual load experience for the past three winters has exceeded that projected value each year.[217] On December 23, 2022, EKPC's peak load reached 3,747 MW; on January 17, 2024, EKPC reached a peak load of 3,754 MW; and, on January 22, 2025, EKPC's load peaked at 3,744 MW.[218] EKPC has approximately 3,430 MW of existing winter capacity that it depends on to serve its winter peak load. EKPC's winter peak load has already exceeded that amount each of the past three winter seasons and is expected to continue to do so.[219]

[213] Tucker Direct Testimony at 8-9.

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

[215] Case No. 2022-00098, REDACTED EKPC 2022 IRP (filed Apr. 1, 2022), Section 1.0, Executive Summary, page 25. Table 1-4.

[216] Case No. 2022-00098, REDACTED EKPC 2022 IRP, Section 3.0, page 65. Table 3-2.

[217] Tucker Rebuttal Testimony at 4-5.

[218] Application at 5; and Rebuttal Testimony Julia J. Tucker (Tucker Rebuttal Testimony) (filed Mar. 31, 2025) at 4-5.

[219] Application at 17.

Key drivers of the 2024 LTLF include native load growth, load growth attributed to economic development, and the addition of assumptions for electric vehicle (EV) penetration.[220] It should also be noted that the 2024 LTLF can be considered to be conservative in that it does not include the possible addition of energy-intensive manufacturing and data centers..[221] While EKPC recognized that the addition of these large loads is possible based upon regional economic development activities in EKPC's Owner-Member service territories, they remain somewhat speculative and will not be included in the LTLF until specific projects are finalized and announced.[222]

Additionally, the 2024 LTLF winter peak forecast is higher than both the 2020 and 2022 forecasts. The peak experienced during Winter Storm Elliott in December 2022 is attributed to an extreme weather event with unprecedented wind-chill ratings, meaning that once that peak was weather-normalized, it was in line with forecasted expectations.[223] However, EKPC's all-time peak witnessed during Winter Storm Gerri in January 2024 did not occur during an extreme weather event, which indicates that prior forecasts were under-projecting winter peaks.[224] In addition, the 2024 LTLF is increased from the 2020 forecast primarily due to the updated assumptions related to peak load weather and partly driven by industrial growth and EV charging loads.[225]

[220] Tucker Direct Testimony at 9.

[221] Tucker Direct Testimony at 9.

[222] Tucker Direct Testimony at 9.

[223] Tucker Direct Testimony at 12.

[224] Tucker Direct Testimony at 12.

[225] Tucker Direct Testimony at 12.

It should be noted that the 2024 reserve margin was significantly increased from zero percent in the EKPC 2022 IRP to seven percent for the EKPC winter peak.[226] This change has been driven by two risks associated with winter peaks, higher than anticipated demand driven by extreme cold weather events (Winter Storms Elliott and Gerri) and generator outage probability.[227] EKPC is a winter peaking utility, and thus it is necessary and reasonable to plan for a generation portfolio that meets expected forecasts and accounts for these unknown risks. On average, the actual peak load witnessed during the above-mentioned winter storm events exceeded the expected load estimated in the long-term forecast. A portion of that increase has been included in the revised 2024 LTLF, however, there remains the risk of an unexpected extreme weather event or generator outage.[228]

EKPC quantified this risk by analyzing the 1 in 10 probability of extreme weather events and spreading that risk over the planning horizon, with an extreme weather event occurring every two years for a 48-hour period within each of those two-year periods.[229] This is consistent with actual events experienced during Winter Storms Elliott and Gerri, which were multiple-day cold weather events, driving load saturation from residential consumption.[230] The reserve margin of seven percent accounts for the inherent risk above the base forecast and enables EKPC to increase reliability while also improving the Owner-Member's hedge against PJM energy market prices during peak winter

[226] Tucker Direct Testimony at 14.

[227] Tucker Direct Testimony at 14.

[228] Tucker Direct Testimony at 14.

[229] Tucker Direct Testimony at 14.

[230] Tucker Direct Testimony at 14.

periods. EKPC's reserve margin for the summer peak has been increased from three percent to seven percent since the 2022 IRP. As discussed regarding winter peak reserves, this increase in summer peak reserves is also necessary to ensure that EKPC is hedged from potentially volatile PJM capacity market prices, which recently cleared at approximately $270/MW-Day for the 2025/2026 Base Residual Auction (BRA).[231] This increase was driven primarily by the PJM adoption of Effective Load Carrying Capability (ELCC) in lieu of Equivalent Forced Outage Rate Demand (EFORd) as the capacity accreditation methodology in effect starting with the 2025/2026 BRA.

EFORd represents a single generator's probability of availability based on total service hours as compared to partial or total forced outage hours.[232] ELCC is a combination of both a generator's market-wide class rating, based on thirty years' worth of historical weather patterns used to simulate thirty-nine thousand years' worth of data, and individual generator performance using actual output during the two hundred highest coincident-peak load hours over a rolling ten-year period.[233] The shift to ELCC results in an overall reduction in capacity available from all generators to sell into the PJM capacity market and reduced EKPC's accredited capacity to sell into PJM by 17 percent on average for the 2025/2026 BRA.[234]

While the summer peak does not represent a reliability concern for EKPC, as EKPC's winter peak is approximately 1,000 MW higher than its summer peak, the

[231] Tucker Direct Testimony at 15.

[232] Tucker Direct Testimony at 15.

[233] Tucker Direct Testimony at 15.

[234] Tucker Direct Testimony at 15.

summer peak does represent a financial risk should EKPC not carry enough available capacity to offset its required load obligation purchase from the PJM capacity market. While it is likely that the winter capacity needs will continue to drive capacity resource expansion, EKPC cannot ignore PJM's implementation of ELCC and therefore increase its summer planning reserves to match its revised winter reserves. EKPC has noted that the Commission has repeatedly raised concerns regarding regulated utilities in Kentucky reliance upon on the wholesale energy markets for generation capacity. The revised reserve margins further EKPC's efforts to reliably serve its Owner-Members with competitively priced energy and maintain sufficient capacity to more effectively hedge native load during extreme weather events.[235]

EKPC forecasts consumer and energy growth for each of its Owner-Members' RUS consumer classification. Winter and summer seasonal peak demands are also forecast for each cooperative. Each class forecast is based on 2024 S&P economic projections, appliance saturations from EKPC's 2022 Residential Appliance Saturation Survey, appliance efficiencies from the Energy Information Administration's (EIA) 2023 Annual Energy Outlook (AEO), and near term commercial and industrial growth not captured in models. The summation of each Owner-Member forecasts represents EKPC's load forecast. These models and assumptions are reasonable to assess EKPC's needs.[236]

To summarize the 2024 LTLF, the residential, small commercial, and large commercial sales are forecast to grow at compound annual growth rates of 1.0 percent,

[235] Tucker Direct Testimony at 14-16.

[236] Tucker Direct Testimony at 11, lines 3-11.

0.2 percent, and 1.5 percent, respectively, over the forecast period (2025–2039). In addition to class forecasts, EKPC partnered with a consultant to forecast EV growth and energy requirements. Charging profiles from the U.S. Department of Energy's (DOE) Alternative Fuel Data Center (AFDC) were analyzed and incorporated into EKPC's forecast to project EV hourly charging needs and seasonal peak contributions.[237] 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 percent, 0.9 percent, and 1.2 percent, respectively.[238]

EKPC utilized the load forecast to project future capacity needs. Additionally, the 2024 LTLF serves as the basis for evaluating resource planning needs. The reserve margin of seven percent is then added to the base forecast for winter and summer peak, to account for unknown risks in weather and generation availability. The base forecast, plus the reserve margin, constitutes the forecasted capacity need.[239]

EKPC Capacity Expansion Plan

EKPC's forecasted capacity needs are based upon EKPC's Capacity Expansion Plan (Expansion Plan), which details the:

1. LTLF,
2. annual peak demand,
3. seasonal planning reserve margins,
4. total existing generation capacity,

[237] Tucker Direct Testimony at 11.

[238] Tucker Direct Testimony at 11.

[239] Tucker Direct Testimony at 13.

5. the capacity surplus (negative number) or deficit (positive number) prior to any capacity additions,

6. the planned capacity additions, and

7. the total capacity including any additions.

Any deficit in the total capacity, including any planned additions, compared to the annual peak, indicates that EKPC intends to monitor the position and hedge any outstanding capacity needs on a seasonal basis.[240]

The Expansion Plan indicates that EKPC is expected to be short 200 MW of capacity beginning in the 2026/2027 winter period as compared to its forecasted winter peak and short 454 MW compared to its forecasted winter peak plus reserve margin.[241] EKPC's Board of Directors (Board) has approved several projects, including the proposed CPCN projects, which will help meet the mid and long-term capacity needs of EKPC.[242]

As indicated in the Expansion Plan, several additional projects have been considered by the Board as the best alternatives to meeting the capacity needs.[243] These projects include long-term purchased power agreements from hydro resources in the near-term which are expected to meet nearly 300 MWs of winter capacity needs, fuel conversions to enable coal and natural-gas co-firing at Spurlock Station and Cooper

[240] Tucker Direct Testimony, Attachment JJT-4, EKPC Capacity Expansion Plan – New Gen (Expansion Plan), and Tucker Direct Testimony at 16.

[241] Tucker Direct Testimony at 17.

[242] Tucker Direct Testimony at 17.

[243] Tucker Direct Testimony, Attachment JJT-4, EKPC Capacity Expansion Plan – New Gen (Expansion Plan).

Station in the mid-term to continue reliable and competitive operation of EKPC's current coal fleet, and a natural gas combined cycle unit in the long-term.[244]

The Commission notes that PJM's load forecast does not reflect the shared loads captured in EKPC's internal forecast,[245] which further supports the use of EKPC-specific planning assumptions. Additionally, the Commission notes that EKPC experienced a significant winter peak in January 2025,[246] reinforcing the importance of a sufficient reserve margin in the near term.

Based on an analysis of EKPC's rational and supporting documentation, as well as its responses to Commission Staff and intervenor requests for information, the Commission finds that EKPC's 2024 LTLF represents a reasonable and accurate assessment of the EKPC's anticipated load obligations for the period of 2024 through 2039. The Commission further finds that the use of a seven percent reserve margin is itself reasonable, particularly given EKPC's capacity obligations as a winter-peaking utility and the need to ensure reliability under forecasted peak load conditions. As testified to by EKPC witness Julia Tucker, EKPC's negotiations for a long-term hydro PPA have been unsuccessful, resulting in the removal of 300 MW from the Capacity Additions portfolio. This change causes EKPC's projected winter reserve margin in the 2026/2027 period to fall slightly above zero, but well below the seven percent target.[247] EKPC is currently

[244] Tucker Direct Testimony, Attachment JJT-4, Expansion Plan.

[245] EKPC's Rebuttal Testimony (filed Mar. 31, 2025), at 6-7 and Attachment JJT-2 Market System Definition.

[246] Tucker Rebuttal Testimony at 4-5.

[247] Hearing Video Transcript (HVT) of the April 22, 2025 Hearing at 16:40:00-16:16:43:45; Testimony of Julia Tucker.

evaluating short-term seasonal PPAs to reduce this near-term deficit beginning with the 2026/2027 winter season.[248]

CPCN for the Cooper CCGT

Having reviewed the record, the Commission finds that EKPC's request for approval of a CPCN for a new CCGT at Cooper Station should be approved as discussed below. In addition, because of the unique timing of the request, the Commission finds it should establish ongoing filings to ensure that a new CCGT remains the most reasonable, lowest-cost option based on the totality of circumstances.

Need

Beginning in 2033, and through the planning horizon to 2039, EKPC could be short capacity as compared to its winter peaks without the addition of additional capacity resources. ELCC adjusted capacity remains higher than EKPC's load obligation for the period from 2025 through 2029. To continue to meet both its summer peaks and reserve margin at the end of the planning horizon, EKPC will need to build or acquire additional capacity resources with sufficient ELCC-adjusted accreditation to ensure it meets its load obligation plus reserve margin. The Cooper CCGT project's need is primarily driven by EKPC's forecasted winter peaks; however, the Cooper CCGT also meets the summer ELCC adjusted need.

The LTLF was updated in 2024 and has changed substantially from what was used in the 2022 IRP.[249] The most current update reflects the actual load experience.

[248] EKPC's Response to Staff's Post Hearing Request, Item 23.

[249] Tucker Direct Testimony at 8-9.

Therefore, the new generation projected to be needed in 2032 in the 2022 IRP is now needed as soon as it can be constructed.[250] Those expectations are based on actual load experience and not potential new load that might be added.[251] Any new load that is added will increase EKPC's projected winter peak load expectations.

As mentioned above, EKPC was unsuccessful in securing the 300 MW hydro PPA, which places EKPC short of supplying enough peak energy to meet its native load needs from 2025 through 2030 until the Liberty RICE units and Cooper CCGT unit are online.[252] EKPC argued that the need for the CCGT is driven by its obligation to hedge its winter peak loads and provide secure generation resources, which it will currently be short on winter energy hedges starting in the winter of 2025.[253]

Based on the evidence in the record and the findings discussed above regarding the reasonableness of EKPC's LTLF with the reserve margin, the Commission finds that EKPC has demonstrated a need for the proposed 745 MW CCGT Cooper Unit.

Wasteful Duplication

EKPC stated that the Cooper CCGT would enhance EKPC's ability to reliably and economically serve its Owner-Members' load needs.[254] Additionally, EKPC provided that the project does not duplicate any other similar generation and will be located at an existing power plant site.[255]

[250] Tucker Direct Testimony at 17.

[251] HVT of the April 22, 2025 Hearing at 13:54:48-13:54-60; Testimony of Julia Tucker.

[252] EKPC's Response to Staff's Third Request, Item 4.

[253] EKPC's Response to Staff's Fourth Request, Item 7.

[254] Application at 21.

[255] Application at 25-26.

In its 2024 LTLF and Capacity Expansion Plan, EKPC demonstrated the need for additional capacity to meet growing demand. EKPC prioritized maintaining enough generation capacity to meet its native peak loads to not be reliant upon PJM markets. Furthermore, neighboring utilities are facing similar issues and do not have significant additional capacity, making it more important that EKPC has the capability to serve its own load. For example, Kentucky Power Company may soon lose capacity it currently receives from Mitchell Generating Station, leaving a deficit until replacement resources are obtained.[256] Likewise, Kentucky Utilities and Louisville Gas & Electric Company have each sought CPCNs to construct utility-owned generation to meet their native-load obligations.[257]

Additionally, PJM has cautioned that reliability risks could emerge as early as 2026 given PJM's 2025 load forecast.[258] PJM's release of the 2025 load forecast projected a steep data center and electrification-driven increase in demand that cannot be offset simply by pausing unit retirements.[259] PJM's concerns led it to petition FERC for approval of an accelerated interconnection study track (the Reliability Resource Initiative) to

[256] Case No. 2025-00175, *Electronic Application of Kentucky Power Company For Approval of (1) A Certificate Of Public Convenience and Necessity To Make The Capital Investments Necessary To Continue Taking Capacity and Energy From the Mitchell Generating Station After December 31, 2028, (2) An Amended Environmental Compliance Plan, (3) Revised Environmental Surcharge Tariff Sheets, and (4) All Other Required Approvals and Relief.*

[257] *See*, Case No. 2025-00045, *Electronic Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates*, (Application filed Feb. 28, 2025).

[258] The growing demand in the PJM market is concerning. Just as recent as June 25, 2025, PJM entered maximum generation emergency status and called upon units that were on a planned outage. pjm.com/markets-and-operations. Last accessed June 25, 2025.

[259] 2025 PJM Long-Term Load Forecast Report at 5.

evaluate projects capable of entering service by 2028.[260] EKPC incorporated these developments into its resource planning and concluded that, given the evident long-term capacity shortfall in Kentucky and the broader PJM footprint, a more granular market shortage would add little value while consuming significant time and expense.

EKPC considered multiple alternatives during the application process. Alternatives included the following:[261]

1. Nuclear power remains cost prohibitive, and it would be nearly impossible to get the necessary permits,

2. New coal generation is too cost prohibitive given current environmental regulations,

3. Demand Side Management could not provide the near-term capacity means,

4. Intermittent Resources including solar power could not provide reliable capacity due to its unique operating characteristics and weather dependency.

5. Natural gas fired generation resources provided the best load following capacity.

In June 2024 EKPC completed an analysis of its transmission system to determine if modifications or upgrades to the transmission system could reduce the need for new generation in the region.[262] Although the addition of the Cooper CCGT will help to solve

[260] FERC Docket No. ER25-712-000 (filed Dec. 13, 2024).

[261] Tucker Direct Testimony at 22-23 and Tucker Rebuttal Testimony at 16-22.

[262] EKPC's Response to Joint Intervenors' First Request, Attachment JI1-23c.pdf, Cooper Generation Unavailability Transmission Analysis.

some transmission issues in the area, upgrading the transmission facilities in the area will not solve EKPC's generation capacity issues.

This analysis determined that either construction of a new West Garrard-Cooper 345 kV line and associated substation terminal equipment at each end or the construction of a new KU Alcalde-Cooper 345 kV line and associated substation terminal equipment provides the most load-serving benefit for the region.[263] These alternatives would support the highest amount of additional EKPC load in the region estimated of 405.7 MW if no new generation is added and would therefore provide the greatest reliability margin if existing and/or new generation is not available.[264]

However, none of the transmission alternatives provide additional generation for the EKPC system. Although the addition of the Cooper CCGT will help to solve some transmission issues in the area, upgrading the transmission facilities in the area will not solve EKPC's generation capacity issues. EKPC carefully developed a comprehensive plan, as detailed in the EKPC Capacity Expansion Plan, to address EKPC's generation capacity shortfall at reasonable costs to its Owner-Members and ultimately the Owner-Member's end use members.[265] Therefore, none of the transmission alternatives evaluated would negate the need for the Cooper CCGT nor would the transmission alternatives reduce the benefits of constructing the Cooper CCGT facility.[266]

[263] EKPC's Response to Joint Intervenors' First Request, Attachment JI1-23c.pdf, Cooper Generation Unavailability Transmission Analysis, at 7.

[264] EKPC's Response to Joint Intervenors' First Request, Attachment JI1-23c.pdf, Cooper Generation Unavailability Transmission Analysis.

[265] Tucker Direct Testimony, Attachment 4, EKPC Expansion Plan.

[266] EKPC's Response to Staff's Fourth Request, Item 5.

According to EKPC, the Cooper CCGT has excellent load-following capability with two combustion turbines operating at 50 percent of its total rated capability, thus expanding its economic dispatch range.[267] Also, the 2x1 configuration will allow for one combustion turbine train to be taken out of service for maintenance while maintaining 66 percent of the facility's capability.[268]

Additionally, the Cooper CCGT Facility will have dual fuel capability with the ability to switch from natural gas to diesel fuel to ensure operation during times when natural gas may be curtailed or unavailable.[269] Furthermore, EKPC will store 2,800,000 gallons of fuel oil on-site in two 85 ft. diameter storage tanks.[270] This will provide up to 72 hours of emergency backup capability.[271]

Having reviewed the evidence in the record, the Commission finds that the Cooper CCGT is not an excess of capacity over need or an excessive investment in relation to productivity or efficiency. EKPC demonstrated that multiple alternatives were considered, and the Commission finds that the CCGT is not duplicative but the best generation resource to address EKPC's current needs.

CPCNs for Co-Firing at Cooper Station and Spurlock Station

Having reviewed the record, the Commission finds that EKPC's request for approval of the CPCN to co-fire at Cooper Station Unit 2 and Spurlock Station Units 1-4 be approved as discussed below. In addition, because of the unique timing of the request,

[267] Johnson Direct Testimony at 6.

[268] Johnson Direct Testimony at 6.

[269] Johnson Direct Testimony at 4.

[270] Young Direct Testimony, Attachment BY-1 at 4-12.

[271] Young Direct Testimony at 4.

the Commission finds it should require EKPC to provide ongoing filings to ensure that co-firing remains the most reasonable, lowest cost option based on the totality of the circumstances. The next sections address both CPCNs to co-fire.

Need

Throughout 2024, the EPA finalized six new regulations, which were, in part, the basis of EKPC's application request.[272] In May 2024, the EPA finalized the GHG rule requiring operators of existing coal-fired power plants to elect by January 1, 2030, one of three options: (1) do nothing and retire the unit by January 1, 2030; (2) select to co-fire with 40 percent natural gas between January 1, 2032 until one day before January 1, 2039, and then retire the unit; and (3) to operate beyond January 1, 2039, operators must install carbon capture and sequestration (CCS) capable of capturing 90 percent of all carbon dioxide emissions by 2032.[273]

EKPC's existing coal-fired generators at both the Spurlock and Cooper Stations are affected by the rule and EKPC must select an option to maintain environmental compliance and continue operating. EKPC stated that Kentucky legislation placed an emphasis on coal-fired generation and Kentucky-mined coal, which was considered in its application requests.[274] Due to the GHG rule, in order to keep coal generation at Spurlock and Cooper Stations, EKPC elected to co-fire with at least 40 percent natural gas.[275]

[272] Purvis Direct Testimony at 5.

[273] Purvis Direct Testimony at 10.

[274] EKPC's Initial Brief at 14, *citing* HVT of the April 21, 2025 Hearing at 9:14:00-1:16:00; Testimony of Don Mosier.

[275] EKPC's Initial Brief at 14.

Otherwise, EKPC would be forced to retire the units by January 1, 2030.[276] The co-firing option would allow EKPC some flexibility, as long as it co-fires at the minimum of 40 percent, as it adds fuel diversity, fuel security, and operational fuel flexibility to both Cooper and Spurlock Stations.[277] EKPC stated that it planned to use natural gas for the benefits of its Owner-Member distribution cooperatives and to reduce carbon dioxide emissions.[278]

Since EKPC is modifying the boilers to accommodate co-firing natural gas with coal, EKPC is required to comply with the NAAQs, NSR, HAPs, the GHG Rule, CAA Title V & PSD program, the CWA NPDES / KPDES, SPCC, 401 WQC with the Corps of Engineers, and as a federal borrower from RUS, the NEPA regulations.[279]

EKPC owns a winter generation fleet of 3,265 MW,[280] and stated that it has a defined need for its existing generation as well as the additional proposed generation.[281] As discussed above, the Expansion Plan indicates that EKPC is expected to be short 200 MW of capacity beginning in the 2026/2027 winter period as compared to its forecasted winter peak and short 454 MW as compared to its forecasted winter peak plus reserve margin.[282] Under current EPA regulations, if EKPC does not convert Cooper Unit 2 and Spurlock Units 1-4 to co-fire with natural gas, it will have to retire the units by January 1,

[276] EKPC's Initial Brief at 14.

[277] Purvis Direct Testimony at 13 and 16.

[278] Purvis Direct Testimony at 13 and 16.

[279] Purvis Direct Testimony at 11-12.

[280] Tucker Direct Testimony, Attachment JJT-2, Load Forecast at 7.

[281] Tucker Direct Testimony at 28.

[282] Tucker Direct Testimony at 17.

2030, and propose additional generation.[283] Spurlock Units 1-4 provide almost half of EKPC's total generation capacity, and EKPC argued that replacing all of the generation would place a tremendous burden on the Owner-Members.[284] Joint Intervenors argued that EKPC's load forecast does not establish a need for the Cooper CCGT, prolonging the life of Cooper Unit 2, and recently approved Liberty RICE Units..[285]

Given the evidence in the record, as discussed above, the Commission finds that EKPC has demonstrated a need to maintain the generation supported by both Cooper Unit 2 and Spurlock Units 1-4. If EKPC cannot co-fire at Spurlock and Cooper Stations, it would be forced to retire the units in 2030 and propose additional new generation sources.

Wasteful Duplication

EKPC asserted that both Cooper Unit 2 and Spurlock Units 1-4 require retrofitting an existing generating unit to retain existing capability and is not duplicating any other resource currently held by the utility.[286]

EKPC argued that Cooper Unit 2's energy value will cover the upfront capital expenses for the retrofit.[287] EKPC provided evidence that Cooper Unit 2 can be retrofitted for a capital cost of approximately $73.8 million.[288] When EKPC modeled operating costs as compared to replacing the energy with other resources or PJM energy market

[283] Tucker Direct Testimony at 28.

[284] Tucker Direct Testimony at 32.

[285] Joint Intervenors' Initial Brief at 8 and 22.

[286] Tucker Direct Testimony at 28.

[287] Tucker Direct Testimony at 28.

[288] Tucker Direct Testimony at 28.

purchases, the modeling indicated that operating Cooper Unit 2 in a 100 percent natural gas fired condition was worth over $117 million for roughly a 10-year period as compared to not having that energy available to supply load.[289] Nucor agreed that the upgrades to co-fire will be offset by the energy savings over ten years compared to buying from the PJM market. [290] Joint Intervenors argued that co-firing at Cooper Unit 2 raises questions as to whether it is prudent and necessary to invest in the long-term continued operation of Cooper Unit 2 plant as it has been losing money for several years and EKPC could soon have the Cooper CCGT and Liberty RICE units, if approved.[291]

EKPC also stated that the proposed natural gas pipeline will service both the Cooper CCGT and Cooper Unit 2.[292] Furthermore, while maintaining the existing capacity, Cooper Unit 2 will also be able to continue operating after 2038 because it will have the capability to run 100 percent on natural gas or 100 percent on coal.[293] Retrofitting the unit will reduce annual variable operating costs by approximately 49 percent and annual maintenance costs by approximately seven percent.[294] Additionally, EKPC argued that Spurlock Units 1-4 can be retrofitted to co-fire with natural gas for a capital cost of roughly $187 million.[295] EKPC modeled the Spurlock Units 1-4 costs as compared to replacing the energy with other resources or PJM energy market purchases,

[289] Tucker Direct Testimony at 28.

[290] Nucor Initial Brief at 10.

[291] Joint Intervenors' Initial Brief at 8.

[292] EKPC's Initial Brief at 15.

[293] EKPC's Initial Brief at 15, *citing* HVT of the April 21, 2025 Hearing 11:22:00-11:23:00; Testimony of Craig Johnson.

[294] Young Direct Testimony, Attachment BY-2 at 7-9.

[295] Tucker Direct Testimony at 33.

and it indicated that operating the Spurlock Station at 40 percent natural gas was worth over $745 million for a roughly ten-year period as compared to not having that energy available to supply load.[296] Retrofitting Units 1-4 is estimated to reduce annual variable operating costs by approximately 46 percent and annual maintenance costs by approximately four percent.[297]

Nucor noted that the Spurlock Station is one of the cleanest coal plants in the country, is in the top 10 percent efficiency of all PJM coal plants, and as such, opined that continuing to run Spurlock Station with barge coal combined with natural gas appears to be a sound business decision.[298]

Joint Intervenors emphasized that EKPC had previously stated co-firing Spurlock Units 3 and 4 was impossible "because they depend upon coal ash contacting the steam generating tubes inside the furnace."[299] [redacted] From a review of monthly fuel adjustment clause (FAC) filings for the period, it is apparent that Spurlock Units 3 and 4 are frequently

[296] Tucker Direct Testimony at 33.

[297] Young Direct Testimony, Attachment BY-3 at 7-8.

[298] Nucor's Initial Brief at 11.

[299] Joint Intervenors' Initial Brief at 8, *citing* Joint Intervenors' Hearing Exhibit 1.

[300] REI Report provided as a confidential attachment to EKPC's Third Supplemental Response to Joint Intervenors' Second Request for Information, Item 47 (filed May 27, 2025).

[301] REI Report provided as a confidential attachment to EKPC's Third Supplemental Response to Joint Intervenors' Second Request for Information, Item 47.

called on and running at high loads, indicating that [redacted] should be feasible and successful.[302]

Furthermore, Joint Intervenors argued that EKPC failed to meet its burden to consider and present reasonable alternatives such as a BESS.[303] EKPC stated that it has a duty to its Owner-Members to review all technologies that are available that meet its mission of safe, reliable, and competitive resources,[304] and that a detailed optimization model was not needed to qualitatively ascertain what options should be considered.[305] EKPC argued that it evaluated a BESS but determined the cost was neither feasible nor competitive at $450,000/MWh for a 100MW capacity and a minimum of four to 10 hour discharge capability needed for EKPC's winter peaking needs.[306] Additionally, EKPC noted that a BESS was excluded from the USDA's New ERA program, and without the grant, a BESS could not compare to solar, hydro, or more traditional forms of dispatchable generation.[307] EKPC argued that it is aware the market is becoming lean with dispatchable resources, and that EKPC needed to stay with proven technologies to avoid risks with unknown operating issues.[308]

[302] Fuel Adjustment Clause filings for the period April 2023 through April 2025 were reviewed and the calculations are attached as Appendix C.

[303] Joint Intervenors' Initial Brief at 25-26.

[304] Mosier Direct Testimony at 13.

[305] Tucker Rebuttal Testimony at 19.

[306] Mosier Direct Testimony at 13.

[307] Mosier Direct Testimony at 13.

[308] Tucker Rebuttal Testimony at 19.

The only proven dispatchable technologies that EKPC considered consisted of natural gas, coal, nuclear, or water for fuels.[309] EKPC argued that it cannot afford the financial risk associated with nuclear technologies at this time, existing environmental regulations made new coal generation plants unfeasible, and EKPC was unable to successfully renew its hydro purchased power agreement, leaving natural gas as the only dispatchable fuel source.[310]

Based on the evidence of record the Commission finds that co-firing is the least cost, most reasonable option. If EKPC were forced to retire the units early and build new generation, the cost would be even more expensive. Co-firing prolongs the lives of the units while allowing additional time to determine how the environmental regulations might be enforced in years to come. In addition, co-firing will reduce the amount of coal combustion residuals (CCR) that is produced at the Spurlock facility, prolonging the useful life of the facility's landfill.[311] Furthermore, investing in the gas pipeline at Spurlock Station has the additional benefit of investing in future capacity growth at that facility if new generation is needed in the future. As Nucor noted,[312] timing is important, and if EKPC does not contract for firm gas services now, it would delay the entirety of the project as

[309] Tucker Rebuttal Testimony at 19.

[310] Tucker Rebuttal Testimony at 20.

[311] EKPC's Response to Staff's First Request, Item 32(k). As to each Spurlock Unit, EKPC noted that the co-fire would reduce CCR from the respective unit in response to Staff's First Request.

[312] Nucor's Initial Brief at 9, *citing* HVT of the Apr.22, 2023 Hearing at 14:27:10-14:29:23; Testimony of Julia Tucker.

EKPC would return to the back of the line.[313] The Attorney General also argued that based on the forecasted dispatch and pricing, the projected revenues received from the units selected by PJM for dispatch within the PJM footprint[314] will far exceed the associated costs, which indicates that it is a "good deal for ratepayers."[315] The Commission finds that the benefits of the proposed co-firing project outweigh the potential risks associated with the current uncertainties in environmental regulations, and therefore, the proposed project does not result in wasteful duplication.

Discussions of Protections Necessary to Ensure These Options are the Most Reasonable, Least Cost Options

In granting the co-firing CPCNs in this matter, the Commission must acknowledge the extremely volatile regulatory environment. This application was filed in November of 2024. At that time, the GHG rules were in effect, and there was not an indication that the EPA would be considering rescinding those regulations. However, in June of 2025, the EPA issued a press release stating it is reconsidering many of its promulgated regulations.[316] However, the Commission must review this application in light of all of factors related to a CPCN. As a basis for the CCGT, the most expensive request in this application, EKPC established a need for additional capacity as discussed above. This

[313] EKPC's Initial Brief at 24. The 'line' refers to three distinct but related queues that EKPC has already entered: (1) the PJM Reliability Resource Initiative (RRI) Transition Cycle #2 queue, which determines the order in which new generation projects advance toward interconnection approval; (2) the limited manufacturing queue for natural-gas combined-cycle turbines, where EKPC has secured two production slots; and (3) the interstate-pipeline firm-capacity reservation queue. Forfeiting any of these positions would force EKPC to re-enter at the end of each queue, adding years of delay and significantly higher costs to the project.

[314] Nucor Hearing Exhibits 4 and 5.

[315] Attorney General's Initial Brief at 7.

[316] EPA Launches Biggest Deregulatory Action in U.S. History | US EPA (last accessed June 16, 2025).

need is not speculative nor based on large potential users that are currently not customers such as data centers.

However, the other CPCN requests, co-firing of Spurlock Units 1-4 and Cooper Unit 2, the specific project need is founded in prolonging the life of the coal units based on EPA regulations.[317] As discussed above, but for current EPA regulations, EKPC might not need to address the choice of retirement or further investment until such time as the useful life of the unit has been reached. EKPC has demonstrated a need for each of these five units to serve its native load, and it continues to progress in diversifying its generation fleet by prolonging the useful lives of the five units and constructing a CCGT, which the utility does not currently possess in its portfolio. The Spurlock units are some of EKPC's most reliable units,[318] and as such, EKPC proposed co-firing as a way to prolong the units' lives and comply with federal regulations.[319] EKPC is the first utility in the Commonwealth to proactively address the GHG rules by installing the ability for a unit to co-fire while still utilizing coal.

The Commission does not want to hinder generation planning. In fact, robust generation planning is absolutely critical for maintaining electric service reliability and therefore economic stability and potential growth. Diversification of the fuel source for generation capacity further protects EKPC and its customers from market volatility or extreme events that may impact one fuel source but not another. The Commission does not approve the co-fire projects lightly and will ensure certain safeguards exist to evaluate

[317] Tucker Direct Testimony at 28 and 32; EKPC's response to Staff's First Request, Item 13.

[318] EKPC's Response to Staff's First Request, Item 7 and Item 8. Generally, in response to Staff's First Request, EKPC provided maintenance and inspection records related to the Spurlock Units.

[319] EKPC's Response to Staff's First Request, Item 7.

the continuing reasonableness of this certificate. In previous cases before the Commission, when circumstances changed, utilities have chosen not to exercise a CPCN or requested to amend its approved application.[320] In addition, the Commission can and has opened an investigation to determine whether a project remained the least cost, most reasonable option.[321]

Related to the projects' construction progress, the Commission will ensure that EKPC continues to evaluate the least cost, most reasonable options in light of prolonging the useful lives of the five units affected by the approval of co-firing in this case. Therefore, the Commission finds it should require quarterly post-case filings, beginning on October 1, 2025, to monitor expenditures and the percentage change from the proposed project budget, changes in environmental regulations affecting the project. The reports should also address material changes in plans or availability of equipment, selection of contractors or sub-contractors, project milestones, and any identified changes to the risk metric, which would then impact the project either in the time it would take to complete the project or the expense it would take to complete the project. The Commission will specifically address the requirements of these quarterly updates in the ordering paragraphs.

[320] *See* Case No. 2006-00206, *The Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity to Construct a Selective Catalytic Reduction System and Approval of its 2006 Compliance Plan for Recovery by Environmental Surcharge*; Case No. 2009-00197 *Application Of Kentucky Utilities Company For Certificates Of Public Convenience And Necessity And Approval Of Its 2009 Compliance Plan For Recovery By Environmental Surcharge.*

[321] *See, e.g.,* Case No. 2010-00238, *An Investigation of East Kentucky Power Cooperative, Inc.'s Need for the Smith 1 Generating Facility*; *See* 2015-00156 *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Declaratory Order Concerning Construction of the Trimble County Landfill and Related Cost Recovery*. *See* Case No. 2015-00194 *Investigation of Kentucky Utilities Company's and Louisville Gas & Electric Company's Respective Need for and Cost of Multiphase Landfills at the Trimble County and Ghent Generating Stations.*

In addition, the Commission finds it should require EKPC to file an annual operating report (Operating Report) providing detailed updates on the performance of the Cooper Unit 2 and the Spurlock Units 1-4 and EKPC's assessment of any potential changes in existing or potential environmental regulations that would affect these units. The annual Operating Report will cover a 12-month period ending December 31 and include, for that year, at a minimum, a discussion and evaluation of the performance of each of the units, unplanned system outages, heat rate, budgeted and actual capital expenditures for the prior year, budgeted capital expenditures for the reporting year, budgeted and actual O&M expenditures for the reporting year, budgeted O&M expenses for the next year, and a discussion of existing and potential environmental regulations that may impact these units. These annual reports will be in addition to other reporting requirements and will be filed in the post case correspondence.

Site Compatibility Certificate
Cooper Station CCGT

According to the testimony, EKPC reviewed multiple potential brownfield and greenfield site locations in central and eastern Kentucky, primarily located around EKPC's existing J. K. Smith stations as well as in Greenup County on the eastern part of EKPC's transmission system.[322] EKPC also considered locating the unit at Tygarts Creek in Eastern Kentucky near the Ohio River.[323] Potential locations were identified that would minimize project capital cost by co-locating close to both existing high voltage transmission lines and natural gas pipelines in the area.[324] In addition, as part of the

[322] Young Direct Testimony at 5; Young Direct Testimony, Attachment BY-4 at 3-4.

[323] Young, Direct Testimony, Attachment BY-4 at 5.

[324] Young Direct Testimony at 5-6.

Feasibility Report, Burns & McDonnell were also asked to explore locations for simple cycle gas turbines as well.[325] Each proposed location was reviewed for sufficient land area for the new combined cycle facility, water availability, noise sensitivity, adjacent residences or community gathering locations, wetlands, and other potential regulatory hurdles.[326]

In the Feasibility Report, both Smith Station and Cooper Station were determined to be good options for the proposed CCGT.[327] However, EKPC choose to locate the new CCGT at Cooper Station.

EKPC retained Burns & McDonnell to prepare a SAR for the CCGT facility. The SAR addressed the statutory requirements concerning *inter alia* the site characteristics, including land use compatibility, potential environmental impacts, setback requirements, noise levels, any effects on nearby property valuation, and proposed mitigation measures.

EKPC explained that it was not requesting a site compatibility certificate for the Cooper Unit 2 or the Spurlock 1-4 co-firing projects because those projects are only updating existing generation units to allow for an additional source of fuel and not constructing new generation units.[328]

[325] Young Direct Testimony, Attachment BY- 4 at 6.

[326] Young Direct Testimony at 6.

[327] Young Direct Testimony at 7; Young Direct Testimony, Attachment BY-4 at 3-5.

[328] Application at 11.

Detailed Site Description

The proposed CCGT facility will be constructed entirely within the boundaries of EKPC's existing Cooper Station.[329] The Cooper Station property is located approximately two miles south of Somerset, Kentucky, and is accessed from Kentucky Highway 1247 via C. Vanhook Road.[330] The existing power plant entrances will be utilized for the Cooper Station CCGT project.[331] The Cooper Station CCGT project will be constructed in the location of the existing coal pile at the site.[332] EKPC tendered a proposed site plan reflecting the movement of the current coal pile.[333]

The surrounding land uses consist primarily of agricultural properties, with some areas designated for residential and agricultural/residential purposes.[334] Approximately 75.43 percent of the adjoining land is classified as agricultural, 16.89 percent as agricultural/residential, and 7.68 percent as residential.[335] The Cooper Station CCGT project will utilize previously developed portions of the site, specifically the area formerly occupied by the coal pile, minimizing further encroachment on undeveloped land.[336]

[329] Young Direct Testimony, Attachment BY-5_Cooper_New_Generation_Site_Assessment_Report (SAR) at 2-1.

[330] Young Direct Testimony, Attachment BY-5, SAR at 2-1.

[331] Young Direct Testimony, Attachment BY-5, SAR at 2.1.

[332] Young Direct Testimony, Attachment BY-5, SAR at 2.1.

[333] Young Direct Testimony, Attachment BY-5, SAR, Appendix B.

[334] Young Direct Testimony, Attachment, BY-5, SAR at 2-1.

[335] Young Direct Testimony, Attachment BY-5, SAR at 2.1.

[336] Young Direct Testimony, Attachment BY-5, SAR at 2.0.

The site is heavily vegetated and characterized by hilly terrain, providing a natural visual buffer from nearby roadways and residences.[337] Although the facility may be partially visible from a limited number of residences to the south across the Cumberland River, the presence of the existing power station, distance from adjacent properties, and natural screening features significantly reduce the potential for visual impacts.[338]

According to the SAR, all construction is planned within the current Cooper Station property boundary.[339] The project will utilize delivery roads currently used, and the site is already fenced with appropriate signage.[340] According to the SAR, EKPC currently utilizes a railway at the Cooper Station, and it is anticipated that materials or equipment may be delivered via railway for this project.[341]

The site was selected, in part, for its proximity to electrical and water utilities in the area.[342] Water for the facility will also be supplied from existing facilities at the Cooper Power Station.[343] New transmission lines will be located to the North of the proposed CCGT.[344]

[337] Young Direct Testimony, Attachment BY-5, SAR at 3.1.

[338] Young Direct Testimony, Attachment BY-5, SAR at 3.1.

[339] Young Direct Testimony, Attachment BY-5, SAR at 2-2.

[340] Young Direct Testimony, Attachment BY-5, SAR at 2-2 to 2.3.

[341] Young Direct Testimony, Attachment BY-5, SAR at 2.3.

[342] Young Direct Testimony, Attachment BY-5, SAR at 2.6.

[343] Young Direct Testimony, Attachment BY-5, SAR at 2.6.

[344] Young Direct Testimony, Attachment BY-5, SAR at 2.6.

Noise Assessment

EKPC retained Burns & McDonnell to conduct an acoustical evaluation of the anticipated noise impacts associated with operating the proposed facility.[345] The study modeled operational sound levels based on the Cooper Station CCGT project's design and referenced EPA and American National Standards Institute (ANSI) guidelines as benchmarks.[346]

The sound modeling determined that operational noise levels are expected to slightly exceed the recommended guideline levels provided by the EPA and ANSI at the nearest sensitive receptor.[347] However, EKPC incorporated mitigation measures into the facility design to minimize noise impacts.[348] These measures include the installation of upgraded exhaust stack silencers, low-noise fans, splash mats at the cooling tower, and enclosures around specific auxiliary equipment.[349] Given these mitigation efforts, the SAR noted the Cooper Station CCGT project is not anticipated to generate operational sound levels that would significantly adversely impact the surrounding community.[350]

Impact on Property Values

A Property Value Impact Study was prepared by Kirkland Appraisals, LLC, to assess the Cooper Station CCGT project's potential effect on adjacent property values.[351]

[345] Young Direct Testimony, Attachment BY-5, SAR, Appendix C.

[346] Young Direct Testimony, Attachment BY-5, SAR at 5-1.

[347] Young Direct Testimony, Attachment BY-5, SAR at 5-1.

[348] Young Direct Testimony, Attachment BY-5, SAR at 5-1.

[349] Young Direct Testimony, Attachment BY-5, SAR at 5-1.

[350] Young Direct Testimony, Attachment BY-5, SAR at 5-1.

[351] Young Direct Testimony, Attachment BY-5, SAR, Appendix A.

The study analyzed property sales data from other similar projects and determined that the construction and operation of the Cooper CCGT facility is unlikely to result in negative impacts on local property values.[352]

The analysis noted that conversion from coal-fired generation to natural gas-fired generation typically leads to improved air quality and overall environmental conditions, which can positively influence property values.[353] Additionally, the Cooper Station CCGT project's use of the Cooper Station site minimizes changes to the existing landscape and setbacks from neighboring properties, further reducing potential impacts.[354] Based on the study's findings, the proposed facility will not adversely impact the value of adjacent or surrounding properties.[355]

Impacts on Road and Rail Traffic

Burns & McDonnell submitted a Traffic Study as part of the SAR to evaluate the Cooper Station CCGT project's impacts on local road and rail infrastructure.[356] The study concluded that road traffic volumes along KY-1247 and C. Vanhook Road will increase temporarily during the peak construction period, which is expected to last approximately 16 months.[357] Peak congestion is anticipated during weekday morning and evening commuting hours due to construction workforce traffic.[358] However, EKPC plans to utilize

[352] Young Direct Testimony, Attachment BY-5, SAR at 4-1.

[353] Young Direct Testimony, Attachment BY-5, SAR, Appendix A at 19-20.

[354] Young Direct Testimony, Attachment BY-5, SAR, Appendix A at 19-20.

[355] Young Direct Testimony, Attachment BY-5, SAR, Appendix A at 19-20.

[356] Young Direct Testimony, Attachment BY-5, SAR, Appendix D.

[357] Young Direct Testimony, Attachment BY-5, SAR at 6-1.

[358] Young Direct Testimony, Attachment BY-5, SAR at 6-1.

two existing access points to the site, and a secondary access road will be utilized during peak periods to alleviate congestion.[359] Upon completion of construction, traffic volumes are expected to return to pre-construction levels.[360] In addition, the SAR lists some restrictions on project schedule times which will be included in the mitigation measures.[361]

Environmental Impacts

The SAR noted that the potential impacts to the environment and surrounding community should be mitigated by the design, construction, operation and maintenance of the facility changes to the Cooper Station.[362] According to the SAR, minimal tree clearing is planned, and the Cooper Station CCGT project design seeks to preserve existing vegetative buffers to the greatest extent practicable.[363] A new natural gas pipeline branch, approximately 40 miles in length, will be installed to supply fuel to the facility.[364]

EKPC will develop and implement a Storm Water Pollution Prevention Plan (SWPPP) and obtain the necessary KPDES permits to manage erosion and stormwater runoff during construction.[365] Best management practices, including silt fencing,

[359] Young Direct Testimony, Attachment BY-5, SAR at 6-1.

[360] Young Direct Testimony, Attachment BY-5, SAR at 6-1.

[361] Young Direct Testimony, Attachment BY-5, SAR at 6-1.

[362] Young Direct Testimony, Attachment BY-5, SAR at 7.1.

[363] Young Direct Testimony, Attachment BY-5, SAR at 7.1.

[364] Young Direct Testimony, Attachment BY-5, SAR at 2.6.

[365] Young Direct Testimony, Attachment BY-5, SAR at 7.1

sediment basins, and construction entrances, will be employed to minimize environmental disturbances during site development activities.[366]

Proposed Mitigation Measures

During the design phase, EKPC planned minimal tree clearing, to minimize both the impact on the scenic surroundings and the impact of the sound for the surrounding neighbors.[367] In the construction phase, EKPC intends to implement erosion control measures, adhere to SWPP requirements, maintain vegetative buffers, and regulate construction traffic to minimize disruptions to the surrounding community.[368] In the operational phase, EKPC has committed to installation of vegetative buffers including trees, shrubs and grass installation, and periodic updates to the Emergency Response Plan to address the needs of the expanded facility.[369]

Setback Deviation

Pursuant to KRS 278.704(4), EKPC requested a deviation from the setback requirements established in KRS 278.704(2), as referenced by KRS 278.708(3)(a)(7).[370] Specifically, EKPC requested that the current setbacks applicable to the existing Cooper Station be applied to the new CCGT facility proposed for construction at the Cooper Station site.[371]

[366] Young Direct Testimony, Attachment BY-5, SAR at 7.1.

[367] Young Direct Testimony, Attachment BY-5, SAR at 7.1.

[368]. Young Direct Testimony, Attachment BY-5, SAR at 7.1.

[369]. Young Direct Testimony, Attachment BY-5, SAR at 7.1.

[370] Application at 16.

[371] Application at 16.

In light of the residential neighborhood located within 2,000 feet of the Cooper Station CCGT project site across the Cumberland River, EKPC requested that the Commission formally permit application of the current setback conditions to the new CCGT facility.[372] EKPC states that the proposed location for the CCGT will meet the statutory goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 despite being located closer than 2,000 feet from the identified residential neighborhood.[373] EKPC explained that the Cumberland River and significant vegetative screening on both sides of the river provide a substantial physical and visual buffer between the facility and the residential properties.[374] Moreover, EKPC argued the Cooper Station has operated at this location since 1965 under the existing setback conditions without compromising the health, safety, or welfare of the surrounding community.[375]

Given the history of the site, the environmental conditions, and the screening provided by natural and topographic features, the Commission finds that EKPC has demonstrated good cause for deviation from the standard setback requirements of KRS 278.704(2). The Commission further finds that the goals and intent of the applicable statutes will be met by applying the existing Cooper Station setbacks to the proposed CCGT facility, and that no additional or modified setbacks are required. Accordingly,

[372] Young Direct Testimony at 12.

[373] Application at 16.

[374] Application at 16.

[375] Application at 16.

EKPC's request for a deviation from the setback requirements contained in KRS 278.704(2) should be granted.

Mitigation Measures

As required by KRS 278.708(4), EKPC proposed various mitigation measures consistent with the statutes regarding traffic, noise, roadway preservation, permitting, setbacks, public safety, and scenic preservation. The Commission finds that EKPC's proposed mitigation measures are generally reasonable and should be implemented as proposed, unless modified or added to herein. However, the Commission finds that a few of EKPC's mitigation measures should be modified and that some additional mitigation measures should be included to ensure that the goals of KRS 278.216 are met. Each of these mitigation measures can be found in Appendix A to this Order.

First, the Commission finds loud construction activities, such as the use of heavy equipment, should be limited to Monday through Saturday, 7:30 a.m. to 7:30 p.m. Limiting loud construction activities to 12 hours a day will not significantly affect EKPC's construction schedule. Conversely, limiting such activities to periods when the majority of nearby residents are likely to be at work and unlikely to be sleeping should minimize the effects of the construction work on nearby residents. However, the Commission recognizes that there may be limited circumstances caused by matters outside of EKPC's control, such as significant weather events, in which it would be appropriate to deviate from the limitations imposed on construction activity for a short period. Thus, the Commission finds that the Executive Director of the Public Service Commission should be authorized to grant deviations from the limits of loud construction activities for short periods upon showing good cause, such as when a minor deviation, necessitated by

matters outside of EKPC's control, could avoid significant delays or costs. To ensure that the Commission is informed of what is occurring with Cooper Station CCGT project, the Commission also finds that it is necessary to require EKPC to make filings with the Commission as the Cooper Station CCGT project progresses, such as a final plan layout and any changes in the Cooper Station CCGT project boundary, as explained in more detail in the Appendix A, which lists most of the mitigation measures proposed by EKPC and those required by the Commission herein.

Further, while EKPC indicated it would work to keep local residents informed regarding the project, which is appropriate, the Commission finds that as part of that outreach EKPC should notify residents and businesses within 2,400 feet of the Cooper Station CCGT project boundary about the construction plan, the noise potential, and any mitigation plans, at least one month prior to the start of construction. Finally, as part of EKPC's or its contractor's outreach to emergency services, the Commission finds that EKPC shall provide a finalized emergency response plan to the local fire district, first responders, and any county emergency management agency, and provide site-specific training for local emergency responders at their request after consultation with local authorities to ensure they have access to information about the Cooper Station CCGT project site.

For the reasons discussed above, the Commission finds that the evidence presented by EKPC supports approving the Site Compatibility Certificate subject to the mitigation measures proposed by EKPC, and finds that, in addition to those EKPC has initially proposed, the mitigation measures set forth in this Order are appropriate and reasonable because they achieve the statutory purpose of mitigating the adverse effects

identified in the SAR in accordance with KRS 278.708. The SAR identifies several mitigation measures in section 7.0 to be implemented during the design, construction, and operation phases to minimize adverse effects. These measures mitigate adverse effects and ensure long-term compatibility with surrounding land uses. The proposed measures include (1) maintenance of natural vegetation buffers, (2) noise and sound-level mitigation consistent with best practices, (3) implementation of erosion, sedimentation controls, and dust suppression measures, (4) installation of new trees for visual screening, and (5) construction-phase traffic management and delivery routing.

CCGT Acknowledgment

As part of the proposed project application, EKPC requested that the Commission acknowledge that, if approved, the CCGT will be the eventual replacement capacity for Cooper Unit 1.[376] EKPC did not request to retire Cooper Unit 1 in this proceeding but wanted to assure that the "requisite replacement capacity is available and online before retiring a unit pursuant to the statutes."[377]

Regarding the CCGT acknowledgment under KRS 278.264, EKPC clarified during the hearing that its letter to PJM referencing the potential retirement of Cooper Unit 1 was procedural and did not constitute a binding retirement decision.[378] EKPC also affirmed in a supplemental data response that any formal retirement would fully comply with the

[376] Young Direct Testimony at 3.

[377] Application at 13-14.

[378] HVT of the April 21, 2025 Hearing at 09:52:15-09:52:44; Testimony of Don Mosier.

requirements set forth in KRS 278.264 and other recently enacted statutory provisions involving oversight by the EPIC.[379]

Having considered the request, the Commission cannot make such a statement at this time. The General Assembly enacted Senate Bill 349[380] during the 2024 Regular Session, which, *inter alia*, created a new state agency, the EPIC. Senate Bill 349 also amended KRS 278.264.[381] KRS 278.264 established a rebuttal presumption against the retirement of legacy electrical generating units unless the utility demonstrates in its retirement application that generation capacity will not be impacted. Senate Bill 349 amended KRS 278.264 to include further requirements necessary to retire generation, including that a utility cannot begin retiring or decommissioning a generating until its replacement generation is fully constructed and operating. Senate Bill 349 also amended KRS 278.264 to require a utility to first apply to the EPIC for proposed generation retirement and include EPIC's report on the retirement in any application to the Commission for generation retirement.

The EPIC has been given the responsibility to evaluate a proposed retirement of a generation facility before a utility applies to the Commission to retire a generation unit. The Commission notes that, during this proceeding, EKPC agreed that it would have a capacity shortfall as soon as the end of this year.[382] In addition, EKPC also updated the status of its hydro PPA and as of the date of this Order, no longer had approximately 300

[379] EKPC's Supplemental Response to Staff's Third Request, 12(a)(supp) (filed Apr. 11, 2025).

[380] 2024 Ky. Acts ch. 172, sec 1.

[381] 2024 Ky. Acts ch. 172, sec 4.

[382] EKPC's Initial Brief at 13-14.

MWs of capacity to include in its portfolio.[383] Therefore, the Commission finds that it is premature to determine that generation capacity will not be impacted at this time. The Commission can acknowledge that EKPC is attempting to address its current capacity deficit with a long-term, steel in the ground plan, which is a goal championed by this Commission to ensure the Commonwealth's utilities can serve its native load, but the Commission cannot make a finding that the projects approved in this Order are replacement generation as contemplated in KRS 278.264.

Motions for Confidential Treatment for the REI Summary and Report

On January 31, 2025, EKPC filed a motion for confidential treatment which included the response to Joint Intervenors' Second Request, Item 47(c).[384] In support of its request, EKPC argued that the summary of the REI report should be given confidential treatment pursuant to KRS 61.878(1)(c)(1). EKPC stated that the information consisting of fluid dynamics modeling results which is proprietary information to a third-party that is not a party to this proceeding.[385] However, EKPC did not actually provide the REI Report in conjunction with the filing of this motion.

On February 11, 2025, EKPC provided a summary of the REI Report in response to Joint Intervenors' Second Request, Item 47(c). Along with the summary, EKPC filed a motion for confidential treatment.[386] In support of its motion, EKPC stated that the summary of the REI Report should be given confidential treatment pursuant to

[383] Case No. 2025-00087, *Electronic 2025 Integrated Resource Plan of East Kentucky Power Cooperative, INC*., EKPC's Response to Commission Staff's Second Request for Information (filed June 6, 2025), Staff 2-28b_EKPC_IRP 2025_Resource_Expansion_Plan.pdf.

[384] EKPC's Motion for Confidential Treatment (Initial Motion) (filed Jan. 31, 2025).

[385] EKPC's Initial Motion at 6.

[386] EKPC's Motion for Confidential Treatment (Supplemental Motion) (filed Feb. 11, 2025).

KRS 61.878(1)(c)(1).[387] EKPC argued that the summary contains confidential and proprietary study, and that the information may be used by third parties to the disadvantage of EKPC.[388]

On April 21-22, 2025, the Commission conducted a hearing in this matter. During the hearing, Joint Intervenors, once again, requested the REI Report and EKPC objected on the basis that it was protected by attorney client privilege.[389] On April 24, 2025, Joint Intervenors filed a motion to compel EKPC to provide the REI Report. On May 1, 2025, EKPC filed a response to the motion and that same day the Joint Intervenors responded with a response in support of their motion. The Commission issued an Order addressing those filings on May 15, 2025. The Commission ordered EKPC to "file and serve, pursuant to 807 KAR 5:001, Section 4(12)(d)(6), the full REI report requested in JI 2-47(c) to the parties in this proceeding, as discussed above, on or before May 19, 2025."[390]

On May 19, 2025, EKPC filed a motion for confidential treatment pursuant to KRS 61.878(1)(c)(1) for the full REI Report along with the full report. In support of its motion, EKPC argued,

> Disclosure of the Confidential Information would permit an unfair commercial advantage to third parties and present an unnecessary and unreasonable infringement upon EKPC's legitimate privacy concerns. It also reveals strategy information regarding EKPC's plan to develop its Kentucky plan for compliance with the Green House Gas Rule ("GHG"). It is EKPC's believe that this information is being sought by the Joint Intervenors as it affords them the means and opportunity to collaterally attack any air permitting work that

[387] Supplemental Motion at 2.

[388] Supplemental Motion at 2-3.

[389] HVT of the April 21, 2025 Hearing at 13:45:15-13:46:55; Testimony of Brad Young.

[390] Order (Ky. PSC May 11, 2025) at 11, ordering paragraph 2.

> EKPC may undertake in the future or that the Energy and Environment Cabinet may undertake in compliance with federal air regulations.[391]

EKPC argued the information is not publicly available and was only provided to regulatory counsel by EKPC's environmental counsel after the Commission's May 15, 2025 Order.[392] EKPC reiterated disclosure pursuant to the Commission's Order should not be viewed as EKPC's waiver of claiming attorney/client or work product privilege for documents in the future.[393] However, EKPC did not provide a copy of the report to the Joint Intervenors. Instead EKPC stated it would make a copy of the REI Report available for viewing at its headquarters in Winchester, Kentucky or at the Commission and no phones or electronics would be allowed during the viewing.[394]

Joint Intervenors filed a response to the filing and motion for confidential treatment.[395] In the response, the Joint Intervenors argued that EKPC did not comply with the Commission's May 15, 2025 Order.[396] Joint Intervenors stated that making the report available is not the same and the "file and serve" the report.[397] Joint Intervenors

[391] EKPC's Motion for Confidential Treatment (Motion in Response to Order to Compel) (filed May 19, 2025).

[392] EKPC's Motion in Response to Order to Compel at 2-3. EKPC stated "[t]he REI Report was prepared at the direction of counsel to assist in developing EKPC's strategy for compliance with the GHG Rule and the state's compliance plan."

[393] EKPC's Motion in Response to Order to Compel at 3.

[394] EKPC's Motion in Response to Order to Compel at 3-4.

[395] Joint Intervenors' Response to Motion for Confidential Treatment (Response to Motion) (filed May 22, 2025).

[396] Joint Intervenors' Response to Motion at 2-3.

[397] Joint Intervenors' Response to Motion at 2.

pointed out that the position of EKPC appeared to be contrary to the evidence in the record.[398]

On May 23, 2025, EKPC filed a response to Joint Intervenors' filing and stated that it did believe it could tender a redacted version of the REI report to Joint Intervenors although the redacted copy would not be ready until May 27, 2025.[399] On May 27, 2025, EKPC filed another Motion for Confidential Treatment for the response to Joint Intervenors' Second Request, Item 47 as well as notice that the redacted version of the report had been provided. This motion reiterated the previous arguments that EKPC had made regarding the basis the REI Report should be granted confidential treatment.[400] Neither Joint Intervenors nor EKPC made any additional related to this issue but did follow the procedural schedule.

Having considered the motions, the Commission makes the following findings related to the REI Report. As to the initial motion for confidential treatment filed on January 31, 2025, EKPC did not file the summary or the report as requested in Joint Intervenors' Second Request, Item 47(c). As such, the Commission finds that, as to that item, in the January 31, 2025 motion, the request is moot. The Commission finds that the motion filed on February 11, 2025, should be granted. The summary of the REI report summarizes information from a third-party proprietary report of modeling and engineering analysis and should be given confidential treatment pursuant KRS 61.878(1)(c)(1). The information in the summary is supported by modeling and engineering information that is

[398] Joint Intervenors' Response to Motion at 2-4.

[399] EKPC's Response to Joint Intervenors' Response to Motion (filed May 23, 2025).

[400] EKPC's Motion for Confidential Treatment.

proprietary to a third party; in addition, should EKPC utilize the CFB for Spurlock 3 and Spurlock 4, the information could disadvantage EKPC in negotiating with third parties as to the co-fire project.

Having considered the motion filed by EKPC on May 19, 2025, the Commission finds that EKPC initially did not comply in full with the Commission's Order to file and serve Joint Intervenors. The Commission grants EKPC's request that the REI Report be granted confidential treatment. As noted in the finding above, the REI Report should be given confidential treatment pursuant to KRS 61.878(1)(c)(1) for the reasons outlined as a basis for the summary to be given confidential treatment. The full report contains modeling and engineering details that would represent a competitive disadvantage EKPC as well as information that represents confidential and proprietary information of both EKPC and its third-party consultant, which if openly disclosed would permit an unfair commercial advantage.

The Commission notes that Joint Intervenors filed a motion in response to EKPC's failure to serve a copy of the full report. The Commission acknowledges the concerns in the May 22, 2025 filing, and agrees that EKPC did not comply entirely by requiring Joint Intervenors to view the report at EKPC's headquarters or at the Commission. However, EKPC filed a response on May 23, 2025, and agreed to provide a redacted copy to Joint Intervenors by May 27, 2025. EKPC filed a motion for confidential treatment on May 27, 2025, along with the redacted copy of the REI report.

Having considered the motion, the Commission grants the motion for confidential treatment of the response to Joint Intervenors' Second Request, Item 47(c) pursuant to KRS 61.878(1)(c)(1), as discussed above. The REI report and REI summary, as

discussed above, therefore, meets the criteria for confidential treatment and should be exempted from public disclosure pursuant to 807 KAR 5:001, Section 13, and KRS 61.878(1)(c)(1) for a period of 20 years. The Commission finds this period sufficient to allow EKPC to bid, build, and otherwise address the GHG rules and construction proposed in this project negating the need for confidential treatment discussed in this Order. As the Commission has found that the summary and report should be granted confidential treatment on other grounds, the Commission will not address EKPC's assertion of attorney-client privilege. The Commission finds that EKPC resolved the dispute between the parties with the redacted filing and as such, any remaining issues related to the May 19, 2025, May 22, 2025, May 23, 2025, and May 27, 2025 filings are moot.

IT IS THEREFORE ORDERED that:

1. EKPC is granted a Certificate of Public Convenience and Necessity to construct the Cooper Station Combined Cycle Gas Turbine Unit as proposed in its application and consistent with the evidence presented in this proceeding.

2. EKPC is granted a Certificate of Public Convenience and Necessity to retrofit Cooper Unit 2 for the purpose of co-fire generation as proposed in its application and consistent with the evidence presented in this proceeding.

3. EKPC is granted a Certificate of Public Convenience and Necessity to retrofit Spurlock Units 1-4 for the purpose of co-fire generation as proposed in its application and consistent with the evidence presented in this proceeding.

4. EKPC is granted a Site Compatibility Certificate for the Cooper Station Combined Cycle Gas Turbine Unit pursuant to KRS 278.216, subject to the Mitigation Measures set forth in this Order and attached as Appendix A.

5. If there is a conflict between the Mitigation Measures discussed in this Order and the Mitigation Measures set out in Appendix A, the Mitigation Measures in Appendix A shall govern.

6. EKPC shall provide the Commission within 30 days of issuance of the EKPC PSD/Title V Air Quality Permit, a summary of any modification to the specific criteria included in the original permit application. Additionally, if during the final permitting process, the EPA or Kentucky Division for Air Quality identifies significant changes to the Cooper Station Combined Cycle Gas Turbine Unit, Cooper Unit 2 co-firing or Spurlock Units 1-4 co-firing projects proposed operation, EKPC shall immediately notify the Commission of this issue.

7. EKPC shall file quarterly, project updates (Quarterly Reports) for Cooper Unit 2, and Spurlock Units 1-4, with the first filing October 2025. The reports shall include the following: project status updates for each project; expenditure breakdowns, including percentage variance from the proposed budget; any material changes to the project schedule that shift the critical path timeline, availability of necessary equipment; selection of major contractors or sub-contractors; project milestones; any environmental regulations changes affecting the project; any identified changes to the risk metric that may impact the project's overall completion and other items EKPC deems necessary.

8. EKPC shall track and report to the Commission through an annual filing (Operating Report) an assessment of the of the Cooper Unit 2 and Spurlock Units 1-4

projects, broken down each unit. The annual Operating Report shall cover a 12-month period beginning December 31, 2025, shall be filed for the next ten years or until the Commission orders otherwise. The Operating Report shall include the following:

a. assessment of any potential changes in existing or potential environmental regulations that would impact the operations of these existing units or the determination that the approved projects are still the least cost, best alternatives for meeting the electric generation needs;

b. a discussion and evaluation of the performance of each of the existing units,

c. unplanned system outages, heat rate, budgeted and actual capital expenditures for the prior year and budgeted capital expenditures for the reporting year,

d. budgeted and actual O&M expenditures for the reporting year and budgeted O&M expenses for the next year, and average start-up times.

9. EKPC shall provide the date construction will commence to the Commission 30 days prior to that date.

10. EKPC shall file a final Cooper Station CCGT Site Plan for approval.

11. If EKPC amends the Cooper Station CCGT Site Plan, EKPC shall submit the new site plan, including any transmission line routes, for approval.

12. The information required in paragraphs 7, 8, 9, 10, and 11 shall be filed in post-case correspondence referencing this case number. As to ordering paragraphs 9, 10, and 11, the Commission will review any submitted changes and issue an Order denying or approving the changes within 20 days.

13. EKPC's request for a deviation from the setback requirements contained in KRS 278.704(2) is granted.

14. EKPC's request for acknowledgment that the Cooper Station CCGT will be the eventual replacement capacity for Cooper Unit 1 under KRS 278.264 is denied.

15. EKPC's motion for confidential treatment filed January 31, 2025, for its response to Joint Intervenors' Second Request, Item 47(1)(c)(1), the REI Summary only, is denied as moot.

16. EKPC's motion for confidential treatment filed on February 11, 2025, for the REI Summary is granted.

17. EKPC's motion for confidential treatment filed on May 19, 2025, for the REI report is granted.

18. EKPC's motion for confidential treatment filed on May 27, 2025, for the REI report is granted.

19. Any remaining issues arising from the May 19, 2025, May 22, 2025, May 23, 2025 and May 27, 2025 motions are denied as moot.

20. The designated material granted confidential treatment by this Order shall not be placed in the public record or made available for public inspection for 20 years or until further order of this Commission.

21. Use of the designated material granted confidential treatment by this Order in any Commission proceeding shall comply with 807 KAR 5:001, Section 13(9).

22. If the designated material granted confidential treatment by this Order becomes publicly available or no longer qualifies for confidential treatment, EKPC shall

inform the Commission and file with the Commission an unredacted copy of the designated material.

23. If a nonparty to this proceeding requests to inspect the material granted confidential treatment by this Order and the period during which the material has been granted confidential treatment has not expired, EKPC shall have 30 days from receipt of written notice of the request to demonstrate that the material still falls within the exclusions from disclosure requirements established in KRS 61.878. If EKPC is unable to make such demonstration, the requested material shall be made available for inspection. Otherwise, the Commission shall deny the request for inspection.

24. The Commission shall not make the requested material available for inspection for 30 days from the date of service of an Order finding that the material no longer qualifies for confidential treatment in order to allow EKPC to seek a remedy afforded by law.

25. EKPC's proposed modifications to its Demand-Side Management and Energy Efficiency (DSM-EE) programs approved in the Order issued May 29, 2025, shall have an effective date of the issuance of that Order.

26. If not already filed, EKPC shall file, within 20 days of the date of service of this Order, EKPC shall file with the Commission, using the Commission's Electronic Tariff Filing System, new tariff sheets setting forth the rates and charges approved by the May 29, 2025 Order and reflecting the effective date of May 29, 2025, and that they were authorized by the May 29, 2025 Order.

27. As to the Cooper Station CCGT, EKPC shall file as built, drawings and maps within 60 days of the completion of the construction authorized by this Order.

28. As to the Cooper Station CCGT, EKPC shall furnish documentation of the total costs of this project, including the cost of construction and all other capitalized costs, including, but not limited to, engineering, legal, and administrative expenses, within 60 days of the date construction of the project is substantially completed. Construction costs shall be classified into appropriate plant accounts in accordance with the Uniform System of Accounts for electric utilities prescribed by the Commission.

29. Any documents filed in the future pursuant to ordering paragraphs 28 and 29 shall reference this case number and shall be retained in the post-case correspondence file.

30. This case is closed and removed from the Commission's docket.

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PUBLIC SERVICE COMMISSION

Chairman

Vice Chairman

Commissioner

ATTEST:

Executive Director

ENTERED
JUL 03 2025 AH
KENTUCKY PUBLIC SERVICE COMMISSION

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2024-00370 DATED JUL 03 2025

The following mitigation measures and conditions are hereby imposed on East Kentucky Power Cooperative, Inc. (EKPC) for the Cooper Station Combined Cycle Gas Turbine Unit to ensure that the facilities proposed in this proceeding are constructed as ordered.

1. A final site layout plan shall be submitted to the Commission upon completion of the final site design. Deviations from the preliminary site layout should be clearly indicated on the revised graphic. Those changes could include, but are not limited to, plant building, stacks, substation, switchyard, natural gas line route, transmission line route(s), or other project facilities and infrastructure.

2. Any change in the project boundaries from the information that formed the evaluation in this Order shall be submitted to the Commission for review.

3. The Commission will determine whether any deviation in the boundaries or site layout plan is likely to create a materially different pattern or magnitude of impacts.

4. EKPC shall provide a finalized emergency response plan to the local fire district, first responders, and any county emergency management agency, and EKPC shall provide site-specific training for local emergency responders at their request. Access for fire and emergency units shall be set up after consultation with local authorities.

5. EKPC or its contractor will control access to the site during construction and operation. All construction entrances will be gated and locked when not in use.

6. EKPC must ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents, and business owners.

7. EKPC shall implement planting of native evergreen species as a visual buffer to mitigate visual viewshed impacts, in areas where those viewshed impacts occur from residences or roadways directly adjacent to the Project and there is not adequate existing vegetation. Planting of vegetative buffers may be done over the construction period; however, EKPC should prioritize vegetative planting at all periods of construction to reduce viewshed impacts. All planting shall be done prior to the operation of the CCGT.

8. EKPC shall carry out visual screening consistent with the plan proposed in its application and the Site Assessment Report (SAR). Should vegetation used as buffers die over time, EKPC shall replace plantings as necessary.

9. EKPC is required to limit construction activity, process, and deliveries to the hours between 7:30 a.m. and 7:30 p.m. local time, Monday through Saturday. EKPC should be mindful to limit the highest noise generating activities to usual work hours, to the extent possible. Non-noise causing and non-construction activities can take place on the site between 7 a.m. and 10 p.m. local time, Monday through Sunday, including field visits, arrival, departure, planning, meetings, mowing, surveying, etc.

10. EKPC shall maintain functional mufflers and engine shrouds on all trucks and engine-powered equipment.

11. EKPC shall notify residents and businesses within 2,400 feet of the Project boundary about the construction plan, the noise potential, any mitigation plans, and its

Complaint Resolution Program referred to in Item 22 of this Appendix, at least 30 days prior to the start of construction.

12. EKPC shall fix or pay for repairs for damage to roads and bridges resulting from any vehicle transport to the site. For damage resulting from vehicle transport in accordance with all permits, those permits will control.

13. EKPC shall comply with all laws and regulations regarding the use of roadways.

14. EKPC shall implement ridesharing between construction workers when feasible, use appropriate traffic controls, or allow flexible working hours outside of peak hours to minimize any potential traffic delays during AM and PM peak hours.

15. EKPC shall consult with the Kentucky Transportation Cabinet (KYTC) regarding truck and other construction traffic and obtain necessary permits from the KYTC.

16. EKPC shall consult with the Pulaski County Road Department (PCRD) regarding truck and other construction traffic and obtain any necessary permits from the PCRD.

17. EKPC shall obtain all necessary permits before transporting heavy loads, especially the RICE engines and substation transformer, onto state or county roads.

18. EKPC shall properly maintain construction equipment and follow best management practices related to fugitive dust throughout the construction process, including the use of water trucks. Dust impacts shall be kept at a minimal level. The Commission requires EKPC's compliance with 401 KAR 63:010.

19. Prior to construction, EKPC shall maintain a Complaint Resolution Plan to address any complaints from community members. EKPC shall also submit annually a status report associated with its Complaint Resolution Plan, providing, among other things, the individual complaints, how EKPC addressed those complaints, and the ultimate resolution of those complaints identifying whether the resolution was to the complainant's satisfaction. EKPC shall submit a final report within 30 days after commencement of electric generation.

20. EKPC shall adhere to the proposed transmission route(s) presented in the application. Should EKPC find it necessary to include any parcel of land not included in this application and approved by the Commission; to finalize the route of the proposed transmission line(s), EKPC shall return to the Commission to request an amendment to the location of the transmission line(s).

21. In order the minimize the impacts provided for in KRS 278.714(3) EKPC shall submit a final layout of the transmission line(s), any relocated transmission lines, and make all reasonable efforts to minimize a new right of way and instead try to co-locate with the current transmission facility.

22. As EKPC progresses in the interconnection process, EKPC shall provide the Commission with all approvals or reports related to interconnection.

23. Any reports or studies that are completed by Columbia Gas Transmission as they relate to this project should be submitted to the Commission for review within 30 days of completion of said report or study. If these reports are duplicative of any other required filing, EKPC may submit a letter as an alternative, with an explanation.

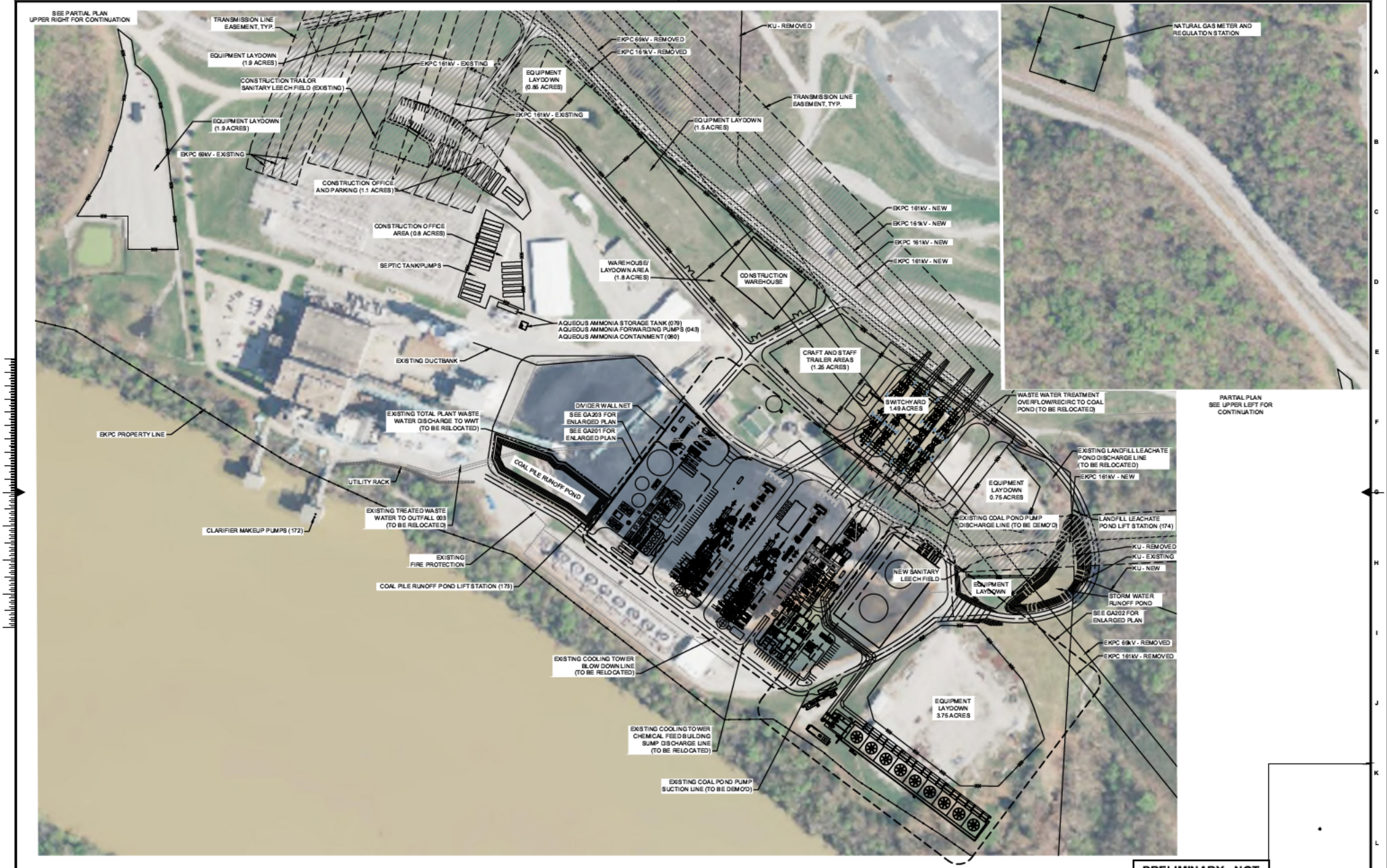
24. Within 30 days of service of this Order, EKPC shall send a notice with web address to this Order to all the adjoining landowners who previously were required to receive notice of this Project, and the notice shall advise the property owner(s) that the project was approved. In addition, the notice should include any construction complaint contact information.

25. If not specifically listed above, all mitigation measures set forth in Section 7 of the SAR are incorporated.

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2024-00370 DATED JUL 03 2025

SEVEN PAGES TO FOLLOW



PRELIMINARY - NOT FOR CONSTRUCTION

no.	date	by	ckd	description
E	01/17/24	CWR	-	PRELIMINARY
D	12/12/23	CWR	-	PRELIMINARY
C	12/01/23	CWR	-	PRELIMINARY
B	11/20/23	CWR	-	PRELIMINARY
A	10/16/23	WRL	-	PRELIMINARY

no.	date	by	ckd	description
K	08/08/24	TLB	-	ISSUED WITH PROJECT SCOPING REPORT
J	05/28/24	CWR	-	ISSUED WITH PROJECT SCOPING REPORT
H	05/03/24	CWR	-	ISSUED WITH PROJECT SCOPING REPORT
G	03/15/24	CWR	-	PRELIMINARY
F	02/19/24	CWR	-	PRELIMINARY

OVERALL SITE PLAN
0 100' 200
SCALE IN FEET
NORTH

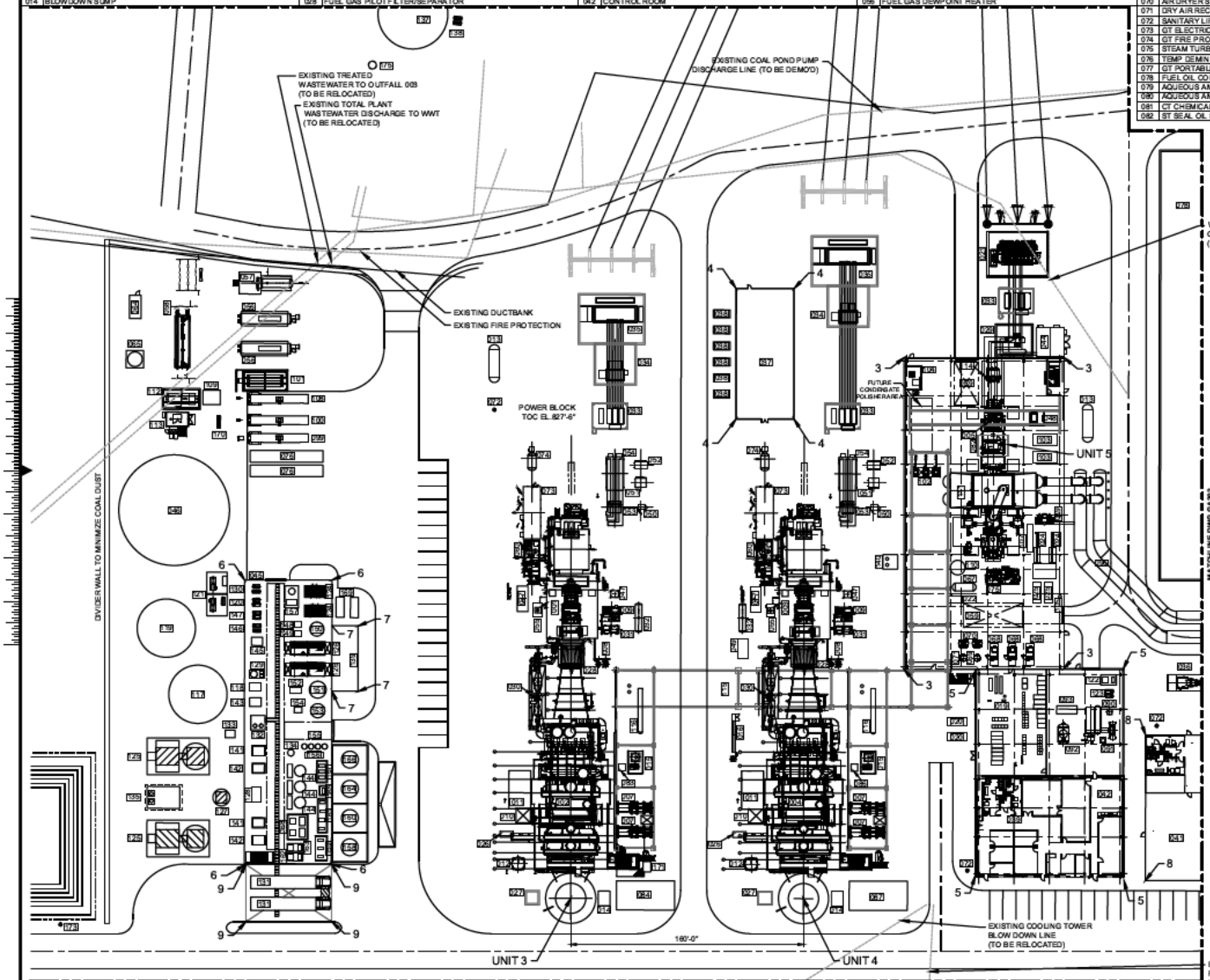
BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
FIRM LICENSE NO.
designed
detailed W. LESNIAK

EAST KENTUCKY POWER COOPERATIVE
PULASKI COUNTY, KENTUCKY

COOPER POWER PLANT
2 x1 CCGT PLANT
OVERALL SITE PLAN NEW COOLING TOWER
BASED ON SIEMENS GTG's

project 157787 | contract
drawing GA200 | rev. K
sheet of sheets
file 157787_2X1-SIEMENS-COOPER-GA200.DWG

EQUIPMENT IDENTIFICATION AND LOCATION LIST		EQUIPMENT IDENTIFICATION AND LOCATION LIST		EQUIPMENT IDENTIFICATION AND LOCATION LIST		EQUIPMENT IDENTIFICATION AND LOCATION LIST		EQUIPMENT IDENTIFICATION AND LOCATION LIST		EQUIPMENT IDENTIFICATION AND LOCATION LIST	
DWG REF	DESCRIPTION NEW SITE EQUIPMENT	DWG REF	DESCRIPTION NEW SITE EQUIPMENT	DWG REF	DESCRIPTION NEW SITE EQUIPMENT	DWG REF	DESCRIPTION NEW SITE EQUIPMENT	DWG REF	DESCRIPTION NEW SITE EQUIPMENT	DWG REF	DESCRIPTION NEW SITE EQUIPMENT
001	UNIT 3 GAS TURBINE (GT)	015	HRSG CHEMICAL FEED (PHOSPHATE)	029	STG EXCITER TRANSFORMER	043	AQUEOUS AMMONIA FORWARDING PUMPS (SEE GA-200)	057	COALESCING FILTER SEPARATOR	083	U3 CTG CEMS
002	UNIT 3 HEAT RECOVERY STEAM GENERATOR (HRSG)	016	SAMPLE PANEL	030	ROTOR AIR COOLER	044	STG EXCITATION COMPARTMENT	058	FUEL GAS REGULATING/METERING STATION	084	U3 HRSG ELECTRICAL BUILDING
003	UNIT 4 GAS TURBINE (GT)	017	COOLING TOWER (CT) ELECTRICAL BUILDING (SEE GA-202)	031	GT WATER INJECTION PUMP SKID	045	WATER TREATMENT BUILDING	059	LIFTING BAY	085	NOT USED
004	UNIT 4 HEAT RECOVERY STEAM GENERATOR (HRSG)	018	CT SS TRANSFORMER (SEE GA-202)	032	WATER WASH/FALSE START DRAINS TANK	046	DEMINERALIZED WATER STORAGE TANK	060	GT LUBE OIL PACKAGE	086	U4 CTG CEMS
005	UNIT 5 STEAM TURBINE GENERATOR (STG)	019	STG ELECTRICAL ROOM	033	GENERATOR CIRCUIT BREAKER	047	GT CONTROL OIL PACKAGE	061	FUEL OIL STORAGE TANK (SEE GA-202)	087	U4 HRSG ELECTRICAL BUILDING
006	COOLING TOWER (CT) (SEE GA-202)	020	STG SS TRANSFORMERS	034	GT AUXILIARY TRANSFORMER	048	STG BRIDGE CRANE	062	FUEL OIL UNLOADING PUMPS (SEE GA-202)	088	NOT USED
007	BOILER FEEDWATER PUMP	021	STG GSU TRANSFORMER	035	GT GSU TRANSFORMER	049	NOT USED	063	FUEL OIL FORWARDING PUMPS (SEE GA-202)	089	CLOSED COOLING WATER FILTERS
008	GT FUEL GAS FILTER / SEPARATOR	022	GLAND STEAM CONDENSER BLOWER SKID	036	EMERGENCY DIESEL GENERATOR (SEE GA-202)	050	SFC CROSSOVER SWITCH CUBICLE	064	RTU / DAC BUILDING	090	AUX BOILER BLOWDOWN TANK
009	GT FUEL OIL PUMP SKID	023	NOT USED	037	MAIN GT ELECTRICAL BUILDING	051	GT SSE TRANSFORMER	065	SUMP TANK	091	AUX BOILER
010	SCR LOADING ZONE	024	CLOSED COOLING WATER HEAT EXCHANGER	038	MAIN GT ELECTRICAL BDLG SS TRANSFORMERS (TOTAL 4)	052	GT SFC TRANSFORMER	066	FUEL OIL HEATERS (SEE GA-202)	092	DEAERATOR
011	AMMONIA FLOW CONTROL UNIT	025	CLOSED COOLING WATER PUMPS	039	ADMINISTRATION ROOMS	053	GTVT & SURGE CUBICLE WITH SFC SWITCH	067	GLAND STEAM CONDENSER	093	AUX BOILER FUEL REGULATING SKID
012	HRSG BLOWDOWN TANK	026	LP ECONOMIZER RECIRCULATION PUMPS	040	I&C TECH SHOP (SEE GA-202)	054	GT SSE / SFC PACKAGE	068	AIR COMPRESSORS	094	CIRCULATING WATER PUMPS (SEE GA-202)
013	OIL WATER SEPARATOR	027	CEMS	041	MAINTENANCE SHOP (SEE GA-202)	055	GT AIR COMPRESSOR	069	WET AIR RECEIVER	095	AUXILIARY CIRCULATING WATER PUMP (SEE GA-202)
014	BLOWDOWN SUMP	028	FUEL GAS PILOT FILTER/SEPARATOR	042	CONTROL ROOM	056	FUEL GAS DEWPOINT HEATER	070	AIR DRYER SKIDS	096	CIRCULATING WATER PIPE
								071	DRY AIR RECEIVER	097	CTACID STORAGE TANK (SEE GA-202)
								072	SANITARY LIFT STATION	098	CT SODIUM HYPOCHLORITE STORAGE TANK (SEE GA-202)
								073	GT ELECTRICAL PACKAGE	099	CO2 TUBE TRAILER
								074	GT FIRE PROTECTION PACKAGE	100	NITROGEN TUBE TRAILER
								075	STEAM TURBINE LUBE OIL MODULE	101	BULK H2 STORAGE TANKS
								076	TEMP. DEMIN TRAILERS	102	CONDENSATE PUMPS
								077	GT PORTABLE COMPRESSOR WASHING UNIT	103	VACUUM PUMP SKID
								078	FUEL OIL CONTAINMENT (SEE GA-202)	104	CHEMICAL FEED EQUIPMENT (AMINE/AMMONIA)
								079	AQUEOUS AMMONIA STORAGE TANK (SEE GA-200)	105	CLOSED COOLING WATER CHEMICAL POT FEEDER
								080	AQUEOUS AMMONIA CONTAINMENT (SEE GA-200)	106	CLOSED COOLING WATER HEAD TANK (MEZZANINE FLOOR)
								081	CT CHEMICAL FEED ENCLOSURE (SEE GA-202)	107	SEAL STEAM SUPERHEATER (MEZZANINE FLOOR)
								082	ST SEAL OIL SKID	108	H2 TRUCK UNLOADING
										109	EMERGENCY CO2 BOTTOM STORAGE
										110	STG ATM DRAINS TANK
										111	CONDENSER
										112	BULK CO2 STORAGE
										113	HYDROGEN GENERATOR
										114	STG VT & SURGE CUBICLE
										115	PIPE RACK
										116	PERFORMANCE HEATER
										117	CLARIFIED WATER STORAGE TANK
										118	CLARIFIED WATER FORWARDING PUMPS
										119	SERVICE/FIRE WATER STORAGE TANK
										120	SERVICE WATER PUMPS
										121	FIRE WATER PUMP ENCLOSURE (AS REQUIRED)
										122	AUX BOILER CHEMICAL FEED SKID
										123	AUX BOILER FEED WATER PUMPS
										124	ULTRA FILTRATION (UF) SKID
										125	WATER TREATMENT CLARIFIER
										126	REVERSE OSMOSIS (RO) SKID
										127	SLUDGE HOLDING TANK
										128	FILTER PRESS SS FEED PUMP SKID
										129	POTABLE WATER TANK AND BOOSTER PUMP SKID
										130	DEMIN WATER PUMPS
										131	WATER TREATMENT FILTER PRESS & UNLOADING BAY
										132	WATER TREATMENT BLDG SUMP PUMPS
										133	MMF AIR BLOWER SKID
										134	WATER TREATMENT BUILDING AIR RECEIVER
										135	CLEARWELL SUMP PUMPS
										136	WASTE WATER LIFT STATION (SEE GA-202)
										137	WASTEWATER STORAGE TANK
										138	WASTE WATER PUMPS
										139	WATER TREATMENT ELECTRICAL ROOM
										140	WASTE WATER SUMP PUMPS
										141	CLARIFIER SLUDGE RECYCLE SKID
										142	CLARIFIER SLUDGE WASTE SKID
										143	COOLING TOWER MAKEUP PUMPS
										144	MULTIMEDIA FILTER (MMF)
										145	STRAINER SKID
										146	MMF BACKWASH PUMPS
										147	UF FEED PUMPS
										148	UF FORWARDING PUMPS
										149	UF BACKWASH PUMPS
										150	UF PERMEATE TANK
										151	NEUTRALIZATION TANK
										152	NEUTRALIZATION PUMP SKID
										153	RO PERMEATE TANK
										154	RO FORWARDING PUMPS
										155	SERVICE DEIONIZATION (SDI) BOTTLES
										156	SDI MANIFOLD
										157	CLEAN-IN-PLACE (CIP) TANK AND PUMP SKID
										158	SULFURIC ACID STORAGE TANK
										159	SULFURIC ACID METERING PUMPS
										160	SODIUM HYDROXIDE STORAGE TANK
										161	SODIUM HYDROXIDE METERING PUMPS
										162	ANTISCALANT TOTE AND METERING PUMPS
										163	SODIUM BISULFATE TOTE AND METERING PUMPS
										164	COAGULANT STORAGE TANK
										165	COAGULANT METERING PUMPS
										166	SODIUM HYPOCHLORITE STORAGE TANK
										167	SODIUM HYPOCHLORITE METERING PUMPS
										168	POLYMER TOTE AND METERING PUMPS
										169	WATER TREATMENT BLDG SS TRANSFORMERS
										170	NITROGEN BOTTLE RACK
										171	HRSG ELEVATOR
										172	CLARIFIER MAKEUP PUMPS
										173	COAL PILE RUNOFF POND LIFT STATION
										174	LANDFILL LEACHATE POND LIFT STATION
										175	UNIT 1 & 2 WWT DRAINS AND CLARIFIER LIFT STATION



BUILDING HEIGHTS

DESCRIPTION	TOS EAVE HEIGHT
STEAM TURBINE BLDG (3)	110'-0"
MAIN GT ELECTRICAL BUILDING (4)	30'-0"
ADMINISTRATION (5)	30'-0"
WATER TREATMENT BDLG (6)	25'-0"
WATER TREATMENT ELECT ROOM (7)	25'-0"
MAINTENANCE SHOP (8)	40'-0"
WATER TREATMENT MEZZANINE (9)	45'-0"

STACK COORDS

ITEM	NORTHING	EASTING	HEIGHT
UNIT 3	N: 1883903.276	E: 1979598.870	
UNIT 4	N: 1883806.802	E: 1979726.512	

EQUIPMENT COORDS

ITEM	NORTHING	EASTING	HEIGHT
DIESEL FIRE WATER PUMP	N: 1884284.000	E: 1979589.000	
AUX BOILER	N: 1883780.904	E: 1979993.892	
GAS DEWPOINT HEATER 1	N: 1884360.500	E: 1979667.500	
GAS DEWPOINT HEATER 2	N: 1884384.000	E: 1979656.250	

PRELIMINARY - NOT FOR CONSTRUCTION

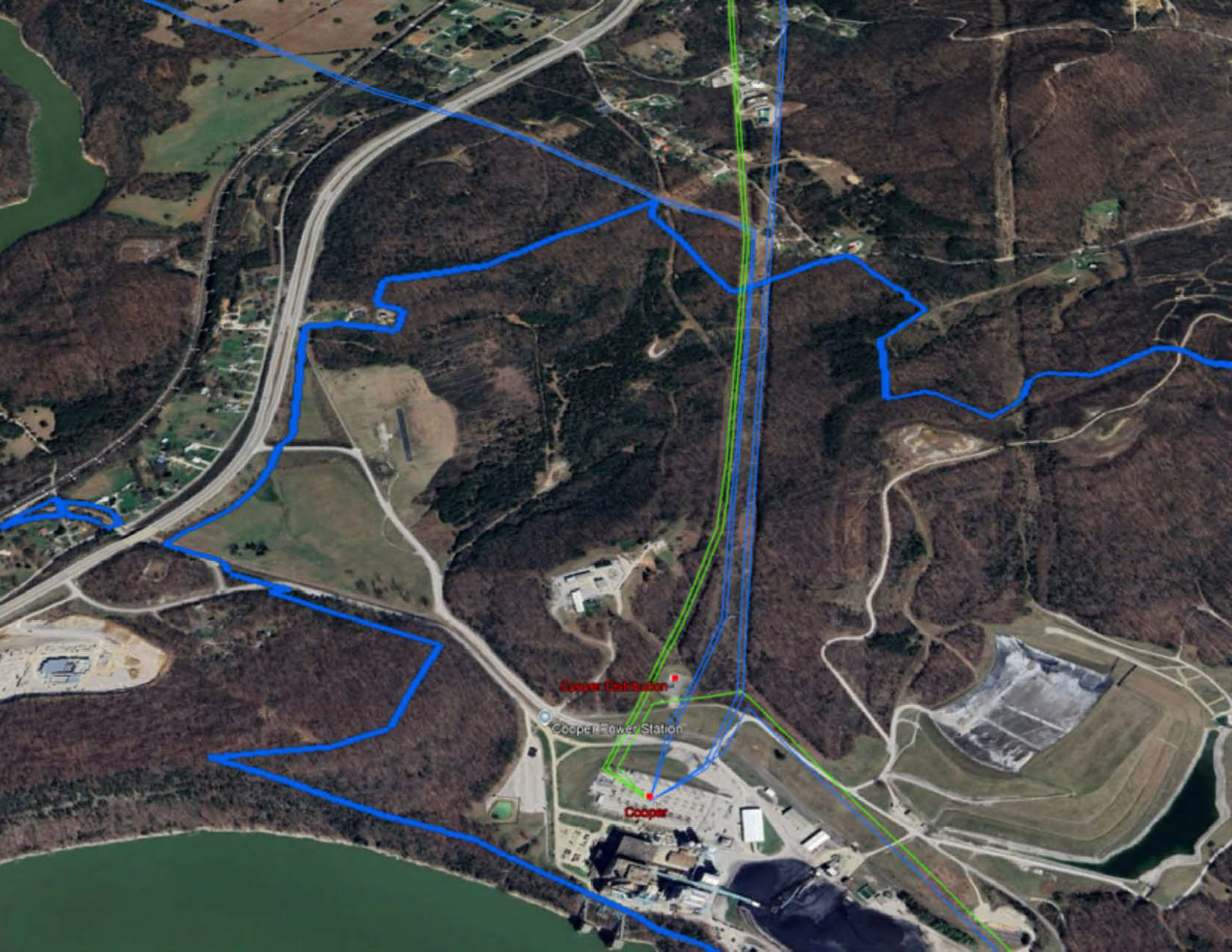
no.	date	by	ckd	description
E	01/17/24	CWR	-	PRELIMINARY
D	12/1/2/23	CWR	-	PRELIMINARY
C	12/01/23	CWR	-	PRELIMINARY
B	11/20/23	CWR	-	PRELIMINARY
A	10/16/23	WRL	-	PRELIMINARY
K	08/08/24	TLB	-	ISSUED WITH PROJECT SCOPING REPORT
J	05/28/24	CWR	-	ISSUED WITH PROJECT SCOPING REPORT
H	05/03/24	CWR	-	ISSUED WITH PROJECT SCOPING REPORT
G	02/19/24	CWR	-	PRELIMINARY
F	02/05/24	CWR	-	PRELIMINARY

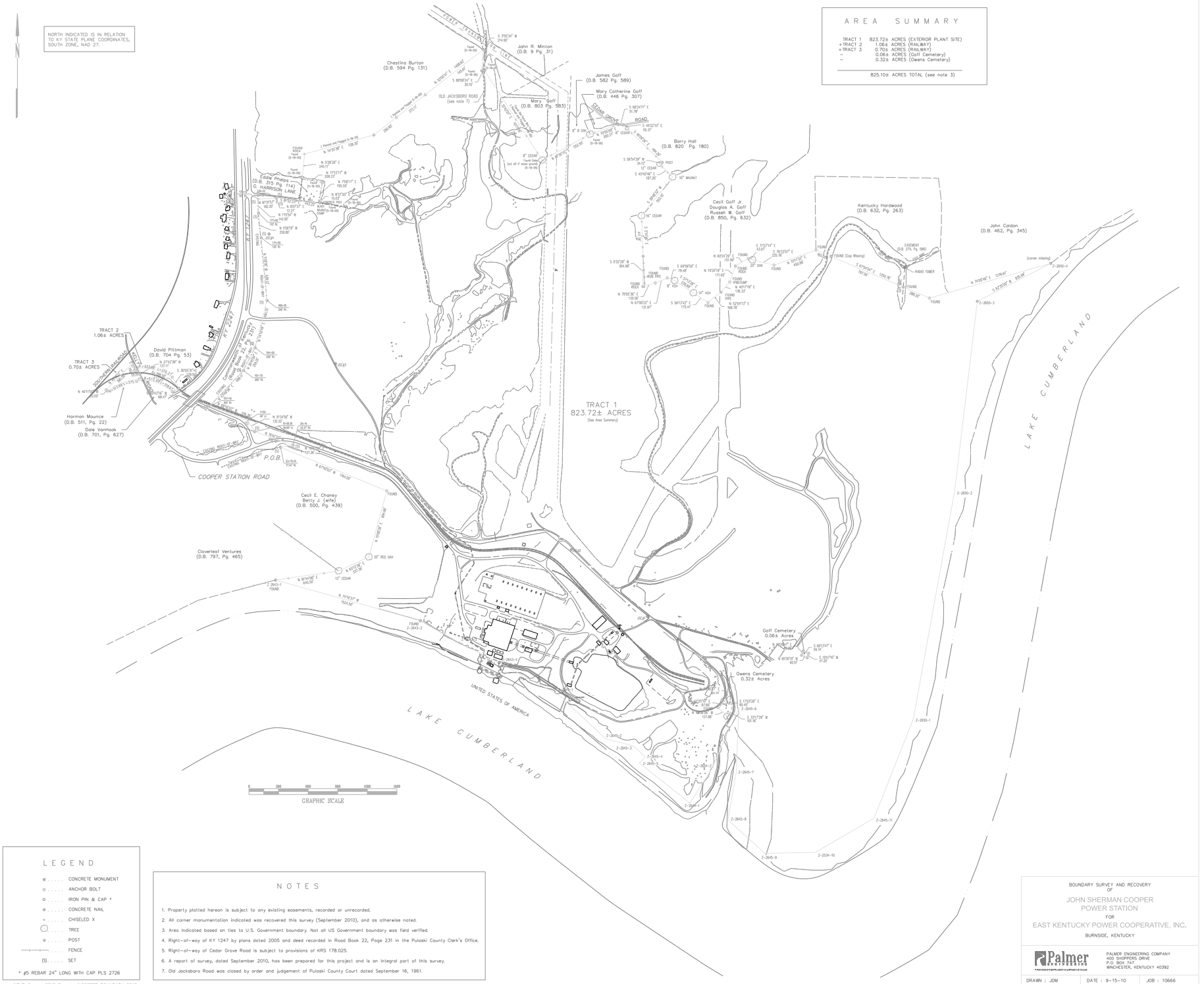
SITE PLAN
0 30' 60'
SCALE IN FEET
NORTH

BURNS McDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
FIRM LICENSE NO.
designed
detailed W. LESNIAK

EAST KENTUCKY POWER COOPERATIVE
PULASKI COUNTY, KENTUCKY

COOPER POWER PLANT
2 x1 CCGT PLANT
ENLARGED PLAN - NEW COOLING TOWER
BASED ON SIEMENS GTG's
project 157787 | contract
drawing GA201 | rev. K
sheet of sheets
file 157787_2X1-SIEMENS-COOPER-GA201.DWG


Cooper Distribution
Cooper Power Station
Cooper


NORTH INDICATED IS IN RELATION TO KY STATE PLANE COORDINATES, SOUTH ZONE, NAD 27.
AREA SUMMARY
TRACT 1 823.72± ACRES (EXTERIOR PLANT SITE)
+TRACT 2 1.06± ACRES (RAILWAY)
+TRACT 3 0.70± ACRES (RAILWAY)
– 0.06± ACRES (Golf Cemetery)
– 0.32± ACRES (Owens Cemetery)
825.10± ACRES TOTAL (see note 3)
TRACT 1
823.72± ACRES
(See Area Summary)
TRACT 2
1.06± ACRES
TRACT 3
0.70± ACRES
P.O.B.
COOPER STATION ROAD
OLD JACKSBORO ROAD (see note 7)
CEDAR GROVE ROAD
KY 1247
SOUTHERN RAILROAD
LAKE CUMBERLAND
UNITED STATES OF AMERICA
John R. Minton (D.B. 9 Pg. 31)
Chestina Burton (D.B. 594 Pg. 131)
James Golf (D.B. 582 Pg. 589)
Mary Catherine Golf (D.B. 446 Pg. 307)
Mary Golf (D.B. 803 Pg. 583)
Barry Hall (D.B. 820 Pg. 180)
Eddie Phelps (D.B. 315 Pg. 714) C. HARRISON LANE
Cecil Golf Jr. Douglas A. Golf Russell W. Golf (D.B. 850, Pg. 632)
Kentucky Hardwood (D.B. 632, Pg. 263)
John Caldon (D.B. 462, Pg. 345)
David Pittman (D.B. 704 Pg. 53)
Harmon Maunce (D.B. 511, Pg. 22)
Dale VanHook (D.B. 701, Pg. 627)
Cecil E. Chaney Betty J. (wife) (D.B. 500, Pg. 439)
Cloverleaf Ventures (D.B. 797, Pg. 465)
Golf Cemetery 0.06± Acres
Owens Cemetery 0.32± Acres
GRAPHIC SCALE
LEGEND
CONCRETE MONUMENT
ANCHOR BOLT
IRON PIN & CAP *
CONCRETE NAIL
CHISELED X
TREE
POST
FENCE
SET
* #5 REBAR 24" LONG WITH CAP PLS 2726
NOTES
1. Property platted hereon is subject to any existing easements, recorded or unrecorded.
2. All corner monumentation indicated was recovered this survey (September 2010), and as otherwise noted.
3. Area indicated based on ties to U.S. Government boundary. Not all US Government boundary was field verified.
4. Right-of-way of KY 1247 by plans dated 2005 and deed recorded in Road Book 22, Page 231 in the Pulaski County Clerk's Office.
5. Right-of-way of Cedar Grove Road is subject to provisions of KRS 178.025.
6. A report of survey, dated September 2010, has been prepared for this project and is an integral part of this survey.
7. Old Jacksboro Road was closed by order and judgement of Pulaski County Court dated September 16, 1961.
BOUNDARY SURVEY AND RECOVERY OF
JOHN SHERMAN COOPER POWER STATION
FOR
EAST KENTUCKY POWER COOPERATIVE, INC.
BURNSIDE, KENTUCKY
Palmer ENGINEERING
PALMER ENGINEERING COMPANY
400 SHOPPERS DRIVE
P.O. BOX 747
WINCHESTER, KENTUCKY 40392
DRAWN : JDM
DATE : 9-15-10
JOB : 10666
CHECKED : TLE
SCALE : 1"=300'
BOOKS : DC
J:\Surveys\EKP Cooper 2010 Boundary\COOPER BOUNDARY 2010 10-02-10

APPENDIX C

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2024-00370 DATED JUL 03 2025

ONE PAGE TO FOLLOW

	SPURLOCK 3		SPURLOCK 4	
	Net Dem Capacity (268 MW)		Net Dem Capacity (268 MW)	
DATE	Avg Load (MW)	Net Capability Factor (%)	Avg Load (MW)	Net Capability Factor (%)
25-Apr	0.00	0.00	254.20	94.85
25-Mar	0.00	0.00	261.44	97.55
25-Feb	241.94	90.28	234.80	87.61
25-Jan	260.73	97.29	259.39	96.79
24-Dec	262.37	97.90	259.97	97.00
24-Nov	251.92	94.00	209.13	78.03
24-Oct	258.24	96.36	0.00	0.00
24-Sep	243.86	90.99	221.66	82.71
24-Aug	240.79	89.95	244.38	91.19
24-Jul	231.71	86.46	243.94	91.02
24-Jun	236.13	88.11	244.99	91.41
24-May	0.00	0.00	240.54	89.75
24-Apr	0.00	0.00	241.11	89.97
24-Mar	0.00	0.00	228.27	85.18
24-Feb	234.29	87.42	242.10	90.34
24-Jan	262.90	98.10	259.19	96.71
23-Dec	256.06	95.54	247.47	92.34
23-Nov	255.08	95.18	254.80	95.07
23-Oct	256.20	95.60	216.26	80.69
23-Sep	250.36	93.42	247.60	92.39
23-Aug	248.33	92.66	242.25	90.39
23-Jul	240.27	89.65	242.88	90.63
23-Jun	235.45	87.85	230.45	85.99
23-May	220.83	82.40	227.03	84.71
23-Apr	209.52	78.18	225.61	84.18

$$\text{Net Capability Factor} = \frac{\text{Average Load}}{\text{Net Demonstrated Capacity}}$$

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