COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR A (1) CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION OF TRANSMISSION FACILITIES IN MADISON COUNTY, KENTUCKY; AND (2) DECLARATORY ORDER CONFIRMING THAT A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY IS NOT REQUIRED FOR CERTAIN FACILITIES	))))))))	**CASE NO. 2022-00314**

EAST KENTUCKY POWER COOPERATIVE INC.'S BRIEF

Comes now East Kentucky Power Cooperative Inc. ("EKPC"), pursuant to the Kentucky Public Service Commission's ("Commission") January 26, 2023 Order in this docket setting forth the post-hearing procedural schedule and the deadline for submitting a brief in this matter, and respectfully states as follows:

I. INTRODUCTION

EKPC filed an Application for a Certificate of Public Convenience and Necessity ("CPCN") to double-circuit a 138 kV transmission line as part of a project to rebuild an existing 69 kV transmission line in Madison County, Kentucky. EKPC determined that its 69 kV transmission line must be rebuilt due to the current condition of the line, insufficient capacity available for peak power flows, and the high likelihood of significant future industrial load growth in the area. As part of a regional transmission improvement initiative, EKPC further determined that it would be practical, cost-efficient and least impactful for the surrounding community to take advantage of the rebuild of the 69 kV transmission line to double-circuit the line with a new 138

kV transmission line at that same time. The recent 2022 Winter Storm Elliott ("WSE"), which occurred approximately two months after EKPC filed its Application, has further demonstrated the need for additional transmission and substation capacity in the area. In fact, WSE demonstrated that the anticipated need is in fact an actual, present need with recent overall EKPC system load and residential loads in this area of the system substantially exceeding the most recent load forecast used for the power flow analyses. As part of its Application, EKPC also requested a Declaratory Order that certain substation facilities that would be needed to sustain safe and reliable service to the area do not require a CPCN.

II. BACKGROUND

On September 14, 2022, EKPC filed its Notice of Intent to file an Application in the above-styled case. EKPC filed its Application on October 27, 2022 for: (1) a CPCN for the construction of the 138 kV transmission line in Madison County, Kentucky; and (2) a Declaratory Order confirming that a CPCN is not required for certain related substation facilities. The Commission issued an Order continuing the case for the full statutory review period of 120 days and establishing a procedural schedule on November 4, 2022. It then issued its First Request for Information on November 9, 2022. EKPC filed responses to the First Request for Information on November 22, 2022. The Commission issued its Second Request for Information on December 1, 2022 and EKPC filed its responses on December 15, 2022. The Commission issued an Order on January 12, 2023 setting the case for hearing. The Commission also issued its Third Request for Information, for which EKPC filed its responses on January 20, 2023. A hearing was held on January 24, 2023. EKPC offered five witnesses for cross-examination at the hearing. The Commission issued a post-hearing procedural schedule on January 26, 2023, establishing the date for responses to post-hearing data requests and setting the date for briefs to be filed. Post-hearing data requests were

filed on January 26, 2023, and EKPC filed its responses to post-hearing data requests on February 2, 2023. Along with the responses to post-hearing data requests, EKPC tendered a Motion for Administrative Notice requesting the Commission to acknowledge that the City of Richmond had, following the conclusion of the evidentiary hearing, entered into an agreement with certain local property owners whereby it could purchase a large tract of land for the purpose of creating a large industrial economic development project. With the filing of this brief, the case stands submitted for a decision.

III. PROPOSED PROJECT

EKPC requested a CPCN for the construction of a new 138 kV transmission line which is to be added as a double-circuit on new structures being installed to replace the existing 69 kV Fawkes-Duncannon transmission line structures and on the existing 69 kV transmission line's right-of-way. The existing 69 kV transmission line will be rebuilt due to both an identified overload and aging infrastructure concerns. This rebuild will not involve any new parcels of property other than those for which EKPC already has an easement. EKPC does not believe that a CPCN is necessary for the rebuild of the 69 kV line pursuant to KRS 278.020(2) and 807 KAR 5:120, Section 2. EKPC requests the Commission grant it the authority to move the location of the line as follows; 20 feet on either side of the existing centerline from KU Fawkes to structure number BM069 to account for any unexpected conditions that may arise during the construction of the 138 kV transmission line, as well as 30' on the western side of the centerline from structure number BM070 to the proposed site of the Madison County Switching Station.[1] EKPC provided a map showing the existing centerline as Exhibit 3 to the Application. EKPC further stated it would not place the transmission line on any new parcel of property without such parcel owner's consent.

[1] EKPC's Application at page 7, paragraph 18, requested the authority to move the location of the line up to 100 feet on either side of the centerline. However, EKPC has determined that it does not need the 100 feet on either side of the centerline and is only requesting the authority to move the centerline as discussed herein.

In addition to the CPCN request, EKPC requested the Commission to declare, pursuant to 807 KAR 5:001, Section 19, that a CPCN is not required for the Fawkes Expansion, the Madison County Switching Station, placement of the step-down transformer and construction of the New Industrial Substation. These elements of the Project are ordinary extensions in the normal course of business and therefore fall under the exception contained in 807 KAR 5:001, Section 15(3). However, EKPC requested that if the Commission disagreed with EKPC and found that a CPCN was required for any of these substation facilities, then the Commission should grant a CPCN for all of them. Importantly, EKPC is not seeking a "blank check" with regard to the construction of the substation improvements. Rather, EKPC seeks a declaration that so long as the proposed substation projects remain within the parameters identified in this case (and summarized below), then no CPCN shall be required in the future.

IV. CPCN EVALUATION CRITERIA

KRS 278.020 governs a utility's request for a CPCN. That statute does not contain the criteria that should be used by the Commission in its decision to grant or deny a CPCN application, however, there is case law construing KRS 278.020(1) and providing the appropriate standard for evaluating a utility's request for a CPCN, such as the request in this proceeding. Kentucky's highest Court has articulated a two-part test for determining whether a CPCN is appropriate: (1) need; and (2) absence of wasteful duplication. In *Kentucky Utilities Co. v. Public Service Comm'n*,[2] the Court wrote:

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

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

> 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.[3]

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

> [W]e think that 'duplication' also embraces the meaning of an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties, such as right of ways, poles and wires. An inadequacy of service might be such as to require construction of an additional facility to supplement an inadequate existing facility, yet the public interest would be better serviced by substituting one large facility, adequate to serve all the consumers, in place of the inadequate existing facility, rather than constructing a new small facility to supplement the existing small facility. A supplementary small facility might be constructed that would not create duplication from the standpoint of an excess of capacity, but would result in duplication from the standpoint of an excessive investment in relation to efficiency and a multiplicity of physical properties.[4]

The Court continued to evaluate wasteful duplication by stating, "[w]e are of the opinion that the Public Service Commission should have considered the question of duplication from the standpoints of excessive investment in relation to efficiency, and an unnecessary multiplicity of physical properties."[5] Even though the avoidance of wasteful duplication is one of the primary factors for consideration of a CPCN application, *Kentucky Utilities Co.* makes clear that the Commission must not focus only on the cost of the proposal, but must also look at the application for a CPCN in relation to the service the utility is going to provide. The Court stated:

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

[3] *Id.*

[4] *Id.* at 890.

[5] *Id.*at 891.

> and some economic loss to be suffered so long as the duplication and resulting loss be not greatly out of proportion to the need for service.[6]

The complete absence of wasteful duplication is not necessary, "it is sufficient that there is a reasonable basis of anticipation" that the "consumer market in the immediate foreseeable future will be sufficiently large to make it economically feasible for a proposed system or facility to be constructed..."[7] The Commission has consistently followed and cited the *Kentucky Utilities Co.* case.[8]

V. ARGUMENT

A. EKPC Has Shown the Need for the 138 kV Transmission Line

In order for a CPCN to be granted by the Commission, EKPC must show a need for the facilities. The Commission has found that the demonstration of need requires the following:

> [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.

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

[7] *Kentucky Utilities Co. v. Public Service Comm'n,* 59 P.U.R.3d 219, 390 S.W. 2d 168, 172 (Ky. 1965).

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

> [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.[9]

EKPC has provided information regarding the condition of its existing 69 kV transmission line and the necessity to rebuild the entire 7.7 miles of line.[10] This line is approaching the end of its useful life and most of the structures are more than sixty-five years old.[11] When a mechanical loading analysis was performed it showed that 40% of the structures may already be loaded at more than 100% of rated strength and there have been numerous failures in recent years on structures and/or cross arms.[12] In addition, based on EKPC's load forecast (which was originally developed in 2020, and updated in 2022 with confirmed industrial load additions) and power flow studies conducted in 2022 using this forecast information, EKPC could experience a thermal overload on this line in the winter of 2022/2023 and EKPC will only have capacity for an increment of 3 MW of load additions before it experiences load-induced deficiencies in this area even if the 69 kV transmission line is rebuilt to address the thermal overload.[13] In other words, even with the 69 kV transmission line rebuilt to current industry standards, it affords very little margin for expected load growth in the future. EKPC provided copies of the load forecast and power flow

[9] *In the Matter of: Electronic Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Hardin County, Kentucky,* Case No. 2022-00066, Order pp. 14-15 (Ky. P.S.C. July 28, 2022). *(citing Kentucky Utilities Co. v. Pub. Serv. Comm'n,* 252 S.W. 2d 885, 890 (Ky. 1952)).

[10] *See* Direct Testimony of Laura LeMaster pp. 6-7 ("LeMaster Testimony"); Exhibit LL-1 to LeMaster Testimony.

[11] *See id.* at 6.

[12] *See id.* at 6-7; EKPC's Responses to Commission Staff's Third Request For Information Item 2 (filed, Jan. 20, 2023) ("Responses to Staff's Third DR").

[13] *See* Direct Testimony of Darrin Adams pp 6-10 ("Adams Testimony"); Exhibit DA-1 to Adams Testimony, pp. 4-5. Hearing Video Record ("HVR") at 1:19:03 – 1:22:30 (January 24, 2023); EKPC's Responses to Commission Staff's Second Request for Information Item 14 (filed Dec. 15, 2022). (Responses to Staff's Second DR").

studies in response to Commission Staff's Post-Hearing Request for Information No. 1. At the hearing in this matter, EKPC witness Darrin Adams testified that EKPC anticipates a need for the additional transmission and substation facilities in the area to occur sooner than first anticipated when the new load forecast and power flow studies are completed in a few months.[14] Mr. Adams further testified regarding the increase in the demand at the residential substations served by this transmission line during the WSE event.[15] As the Commission is aware, WSE occurred over the Christmas weekend. Due to the storm arriving amidst a holiday weekend, the industrial load in the area was far lower than it would have been if the storm had occurred during a normal work week.[16] Nevertheless, the residential substations saw an increase of approximately 12-13% load during WSE.[17] Mr. Adams testified that this approximately 13% increase, in conjunction with the normal level of power demand by local industries in the area, would have exceeded the 3 MW of additional load-serving capacity available on this system.[18]

EKPC's current transmission system in the area is not adequate to serve any marginal increase in load, whether that be an increase in the residential load, as was seen during WSE, or an addition of a new industrial load in the area.[19] Further demonstrating the need for a substantial

[14] *See* HVR at 1:40:16-1:40:49.

[15] *See* HVR at 1:32:00-1:32:58; and 1:40:16-1:40:49.

[16] *See* HVR 1:28:05-1:32:00 .

[17] *See* HVR at 1:32:00-1:32:37.

[18] *See* HVR at 1:32:00-1:32:37 and 2:51:13 -2:54:33.

[19] *See* Adams Testimony, pp. 6-10; Exhibit DA-1 to Adams Testimony, pp. 4- 6; Responses to Staff's Second DR Item 13; Since the hearing in this matter, the Richmond Board of Commissioners has exercised an option-to-purchase on the property in the area to be developed into an industrial megasite. The Order entered by the Richmond Board of Commissioners was filed in response to Commission Staff's Post-Hearing Request for Information and was also filed with a Motion to Take Administrative Notice on February 2, 2022. This emphasizes that the need for additional facilities is expected to materialize sooner rather than later.

investment in this portion of the transmission grid, EKPC provided information demonstrating that it has received numerous inquiries from the Kentucky Economic Development Cabinet regarding industrial customers that are interested in potentially locating at an industrial megasite in Madison County, just south of Richmond.[20] Although the Kentucky Economic Development Cabinet cannot provide specific details on the potential industrial customers due to confidentiality issues, it has provided the anticipated loads for the customers, which range from 50 MW to 400 MW.[21] EKPC's existing system in the area is not currently capable of serving even the smallest level of this potential industrial load range. The urgency of meeting this readily ascertainable need is further magnified by events taking place within the past two weeks. Since the hearing in this matter, the Richmond Board of Commissioners voted to execute an option to purchase the property noted above for the purposes of developing an industrial megasite.[22] The Richmond Board of Commissioners' vote on this has caused the interest in the site from potential industrial customers to skyrocket.[23] From January 25, 2023 to February 9, 2023 alone, EKPC has had two interested companies conduct site visits and five active projects explore the site. The designation as an industrial megasite is significant due to the recent legislation passed that created a fund to aid in development of these megasites.[24]

[20] *See* Adams Testimony p. 11 – 12; Responses Staff's Second DR Item 9; EKPC's Responses Staff's Third DR Item 8.

[21] *See* HVR at 55:33-58:14.

[22] A copy of the Board of Commissioners' Order was filed with a Motion to Take Administrative Leave on February 2, 2022 and was also filed with EKPC's Responses to Commission Staff's Post-Hearing Data Requests No. 3 (filed Feb. 2, 2023). ("Responses to Staff's PHDR").

[23] The City of Richmond issued a press release on February 7, 2023 which is attached to the Brief as Exhibit 1.

[24] 22RS HB1 appropriated $50 million in fiscal year 2021-2022 and $150 million for fiscal year 2022-2023 to support the creation and implementation of the Kentucky Product Development Initiative ("KDPI") program. The appropriation shall be divided between two funding distribution models as follows: (1) $50 million in fiscal year 2021-2022 and $50 million in fiscal year 2022-2023 to support approved mega development projects of a least $10

It is well-established that both current and future need can be used to show "need" under the statute.[25] As the Commission recently stated:

> Based on evidence of record, including study results that indicate the current transmission system could not adequately serve Ford's demand, not to mention future demand in the area, the Commission finds that KU has demonstrated a need for additional transmission to provide service to the Ford facilities and the Glendale Megasite.[26]

KU did not have a special contract signed with Ford prior to the CPCN being granted by the Commission.[27] There was no guarantee at the time the CPCN was granted that the Ford load would actually materialize or what the future load would be. Additionally, the Commission found in Case No. 2021-00275 that Big Rivers Electric Corporation ("BREC") demonstrated a need for the transmission line and substations it proposed. The Commission found, "BREC needs these projects to continue to provide reliable electric service to its member-owner Jackson Purchase. BREC anticipates load growth in McCracken County resulting from future energy-intensive cyber currency mining facilities locating in the area."[28] The Commission went on to say:

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million; and (2) $100 million in fiscal year 2022-2023 to support approved development projects which shall be allocated to each county based on population.

[25] *In the Matter of: Electronic Application of Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Hardin County, Kentucky,* Case No. 2022-00066, Order pp. 14-15 (Ky. P.S.C. July 28, 2022); *see also, In the Matter of: Electronic Application of Duke Energy Kentucky Inc., for a Certificate of Public Convenience and Necessity to Construct a 138 kV Transmission Line and Associated Facilities in Boone County, Kentucky (Oakbrook to Aero Transmission Line Project),* Case No. 2019-00251, Order p. 12-13 (Ky. P.S.C. Dec. 18, 2019). ("the Commission finds that Duke Kentucky has established sufficient evidence to demonstrate that the proposed transmission line project is needed to provide service to **anticipated load growth** in the local area....")(emphasis added).

[26] *Kentucky Utilities,* Case No. 2022-00066 pages 18-19.

[27] *See id.* at 17-18.

[28] *In the Matter of: Electronic Application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity to Construct a 161 kV Transmission Line in McCracken County, Kentucky,* Case No. 2021-00275, Order p. 9 (Ky. P.S.C. Jan. 14, 2022).

> Because BREC is now obligated to provide the power necessary for Jackson Purchase to serve Blockware *and any other business locating to Industrial Park West*, it must upgrade its transmission system to accommodate the needs of its owner-member and the retail customer. BREC is not currently experiencing reliability issues currently, but it stated that the addition of Blockware's load connected at 69 kV *has the potential* to result in reliability issues due to much heavier loadings on the existing facilities. BREC stated the heavy loadings will likely exceed facility ratings and may result in equipment damage and facility outages. These concerns are alleviated by the 161 kV circuit.[29]

Furthermore, in Case No. 2022-00295,[30] Delta Natural Gas Company, Inc. ("Delta") proposed to construct a transmission pipeline to service unserved sections of Rockcastle and Lincoln counties. In that proceeding, Delta "estimates adding 2000 new customers, including residences, businesses, school, and manufacturing facilities."[31] The Commission granted the CPCN stating, "[t]he area is unserved, is designed in part for economic development, and demand is expected from residential, commercial and industrial sectors."[32] The Commission went on to opine: "The Cabinet for Economic Development also identified this corridor for having significant economic potential."[33]

Kentucky law supports the notion that the timeline for determining "need" for CPCN purposes is not strictly based upon the immediate circumstances, but also circumstances that are reasonably foreseeable. In *Kentucky Utilities Co. v. Pub. Serv. Comm'n,* the Court stated:

> One of the alternative tests of inadequacy stated in East Kentucky is 'a substantial deficiency of service facilities, beyond what could be

[29] *Id*. at 10 (emphasis added).

[30] *In the Matter of: Electronic Application of Delta Natural Gas Company, Inc For a Certificate of Public Convenience and Necessity to Construct a Pipeline in Lincoln and Rockcastle Counties, Kentucky.* Case No. 2022-00295 Order (Ky. P.S.C. December 13, 2022).

[31] *Id.* p. 4.

[32] *Id.* p. 4-5.

[33] *Id.*

> supplied by normal improvements in the ordinary course of business'. The deficiency is not to be measured by the needs of the particular instant, but by 'immediately foreseeable needs.' Clearly, in view of the substantial period of time required to construct and place in operation a major electric service facility, the immediately foreseeable future may embrace a number of years.[34] (citations omitted)

Although EKPC does not know the actual load that will materialize in this area, it is quite reasonable to anticipate that a load of more than 3 MW will materialize in the very near future based on the information from the 2022 WSE, the recent development on the option-to-purchase for the industrial property by the Richmond Board of Commissioners, and the numerous inquiries received from the Kentucky Economic Development Cabinet regarding industrial customers interested in locating in the area. As stated above, the interest in this area has spiked significantly since the Richmond Board of Commissioners took the steps necessary for the option-to-purchase the 600 acres referred to in this proceeding, all of which is to be served by Blue Grass Energy, to develop an industrial megasite.[35] EKPC has a duty to serve its owner-member Blue Grass Energy and its owner-member's retail customers and must upgrade its system accordingly.[36] EKPC has provided substantial evidence to show that a marginal load increase in excess of 3 MW would result in unacceptably low voltage in violation of EKPC's minimum required level and that the addition of the 138 kV transmission line in the area will alleviate the voltage violation expected in the area, increase reliability and prepare for service to future large industrial customers at the industrial megasite in a timely manner. EKPC has fully demonstrated that there is a "need" for

[34] *Kentucky Utilities Co. v. Pub. Serv. Comm'n,* 390 S.W.2d 168, 171 (Ky. 1965).

[35] EKPC provided a copy of the Richmond Board of Commissioners' Order in response to Commission Staff's Post-Hearing Request for Information Item 3 (filed Feb. 2, 2023); EKPC also filed a Motion to Take Administrative Notice of the Richmond Board of Commissioners' Order on February 2, 2023.

[36] *See* KRS 278.030; KRS 278.260.

the 138 kV transmission line to be constructed as part of the rebuilding of the existing 69 kV transmission line.

B. EKPC Has Shown that the Construction of the 138 kV Transmission Line Does Not Result in Wasteful Duplication

1. Wasteful Duplication Definition

EKPC also must show that construction of the 138 kV transmission line will not result in wasteful duplication. "Wasteful duplication" is defined as "an excess of capacity over need" and "an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties."[37] In order to demonstrate that the proposed facilities do not result in wasteful duplication, the Commission has held that the application must demonstrate that a thorough review of all reasonable alternatives has been performed.[38] The Commission has also found that even if a proposed project ultimately costs more than an alternative, this does not necessarily result in wasteful duplication.[39] Pursuant to KRS 278.030(2), EKPC has an obligation to furnish adequate, efficient and reliable service to its owner-members.

2. The Existence of an Additional 138 kV Transmission Line in the Area Does Not Result in Wasteful Duplication

Of all the options available to EKPC, the proposed double-circuiting of the existing Fawkes-Duncannon transmission line is the reasonable, least-cost option and does not result in wasteful duplication. For instance, EKPC has a 138 kV single circuit line ("West Berea Line")

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

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

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

connecting the Fawkes and West Berea substations that runs parallel with the 69 kV transmission line ("Fawkes-Duncannon Line") for a short distance. However, the West Berea Line cannot be utilized electrically to relieve the insufficiencies in the area - an additional 138 kV transmission line is needed to provide adequate single-contingency redundancy. An outage of the West Berea 138 kV line would result in unacceptably low voltage levels in the area as load growth occurs.[40] Therefore, any connection of solely this line to the Madison County Switching Station and/or the New Industrial Substation to serve new load and/or address the low-voltage issues would be ineffective because of the low-voltage issues that would be created due to an outage of this line.[41] Therefore, a second 138 kV line is needed so that sufficient support remains for the area when an outage of the West Berea line occurs (that is, for N-1 conditions).[42]

3. EKPC Thoroughly Reviewed All Electrical Alternatives

EKPC provided evidence throughout the proceeding on the alternatives it reviewed and analyzed to correct the issues it is encountering in the area. Darrin Adams provided the Transmission Planning Study as Exhibit DA-1 to his Direct Testimony. The Transmission Planning Study discussed the electrical alternatives and the costs associated with each.[43] The only electrical alternative that would address the low-voltage, thermal-overload, and physical-condition issues while preparing for service to future industrial load additions in the area was the double-circuit of the 69 kV Fawkes-Duncannon transmission line with the proposed 138 kV transmission

[40] *See* HVR at 2:41:09 – 2:44:18; EKPC's Responses to Commission Staff's Post-Hearing Request for Information, Item 4 (Feb. 4, 2023).

[41] *See id.*

[42] *See id.*

[43] *See* Exhibit DA-1 to Adams Testimony, pp. 9-16 and 18-19.

line.[44] There were three electrical alternative plan projects analyzed in detail in the transmission-planning study, including: (1) rebuild the 69 kV transmission line as a double-circuit 69 kV/138 kV line, modify the EKPC Fawkes substation to add a 138 kV terminal and install a new 138 kV/69 kV transformer and associated 138 kV bus at the Madison County Switching Station (the project that was ultimately proposed in the Application); (2) build a new 138 kV/69 kV transmission substation near the existing EKPC Union City distribution substation and build a new 6.5-mile 69 kV line from Union City to the Speedwell Road distribution substation; and (3) install a new 69 kV, 30 MVAR capacitor bank at the EKPC West Berea substation.[45] Each of these alternatives are discussed in detail in Section 2.3 of the Transmission Planning Study and in EKPC's Response to Commission Staff's Second Request for Information Item 10.

Several other electrical alternatives were considered but were eliminated via a preliminary screening evaluation by EKPC's transmission planning staff. These included: (a) building a new, normally open tie with KU near Crooksville; (b) building a new 69 kV line from Newby to Duncannon Lane Tap; (c) building a new, normally-closed line from the LG&E/KU Lake Reba-Waco 69 kV line to Speedwell Road; (d) building a new 138 kV line from Union City and a 138 kV/69 kV substation at Speedwell Road; or (e) looping in the EKPC Fawkes-West Berea 138 kV line into the Madison County substation and installing a 138 kV/69 kV transformer at Madison County.[46] The new normally open tie with KU near Crooksville was discarded because normally-open ties are generally only available for support on a non-firm basis, depending on system conditions and the ability of the interconnected utility's system to provide the necessary support;

[44] *See* EKPC's Responses to Commission Staff's First Request for Information, Item 10, (filed Nov. 22, 2022). ("Responses to Staff's First DR").

[45] *See* Exhibit DA-1 to Adams Testimony, pp. 9-16 and 18-19.

[46] *See id.* at 13.

therefore, EKPC would not be guaranteed that this would address the identified system issues. The new Newby-Duncannon Lane 69 kV line was not pursued because of its relatively high cost and the reduced level of support it would provide, since it would be connecting to a weaker 69 kV area of the EKPC system at Newby. The new 69 kV line connecting the LG&E/KU Lake Reba-Waco 69 kV line to the EKPC Speedwell Road substation was eliminated for similar reasons – high cost but limited support due to being a wholly 69 kV solution. The Union City-Speedwell Road 138 kV line with a 138 kV/69 kV substation at Speedwell Road was eliminated because the performance would be very similar to one of the alternatives that was analyzed in detail (the Union City 138 kV/69 kV substation plus a 6.5-mile Union City-Speedwell Road 69 kV line), but the cost is higher because the new transmission line would be built at 138 kV instead of 69 kV.

In evaluating the three alternative plans, Plan 1 was the highest cost alternative, however it was the only alternative that solved all issues EKPC is experiencing in the area – including the physical-condition concerns associated with the Fawkes-Duncannon Line – while also providing substantially more benefits than any of the other alternatives.[47] If EKPC elected to construct either Plan 2 or Plan 3, the physical-condition concerns associated with the Fawkes-Duncannon Lane 69 kV line would still exist and would need to be addressed via a rebuild of the line.[48] Therefore, Plans 2 and 3 do not obviate the need for a tear-down and rebuild of the existing line along the exact corridor that would be utilized to establish a new 138 kV line in Plan 1.[49] Also, Plan 3 provides no reliability or operational-performance benefits, since no new lines are added to the

[47] *See id.* at p. 15-16, 18; Responses to Staff's First DR, Item 10.

[48] *See* Responses to Staff's First DR, Item 10.

[49] *See* Exhibit DA-1to Adams Testimony, p. 15-16.

system in that alternative.[50] Constructing the proposed double-circuit transmission line provides significant load-serving benefits for the area – greater than any of the other alternatives considered (62% to 175% more capacity created). In addition, when the proposed 138 kV line is connected to the 69 kV system at the proposed Madison County Switching Station, it will improve reliability of service to the entire area and provide operational flexibility.[51] "Reliability is part of the Commission's consideration in analyzing whether facility duplication is wasteful."[52] Improving reliability and resiliency in the area is a concern of EKPC due to the large number of customers currently served by a single 69 kV transmission line, and the high level of industrial load served from this line. Adding the 138 kV line to the system provides an additional layer of redundancy that enhances continuity of service during planned transmission-facility maintenance outages, as well as opportunities for reduced restoration times during unplanned outages.[53] For instance, removing the existing Fawkes-West Berea 138 kV line from service currently is problematic, since it is the only high-voltage path for power flows from the Fawkes substation into the Berea area.[54] When this outage occurs (either planned or unplanned), the 69 kV line between the Fawkes and West Berea substations becomes more critical and customers served on this line are at higher risk of loss of service for a subsequent outage. Establishing a new 138 kV line into the center of the load pocket alleviates these concerns.[55] The Commission has approved "double circuit

[50] *See id.*

[51] *See* Adams Testimony, pp. 11-15.

[52] *Kentucky Utilities*, Order, Case No. 2022-00066, p. 21.

[53] *See id.*; Responses to Staff's Second DR Item15.

[54] *See* Responses to Staff's Second DR Item 15; Responses to PHDR Item 2.

[55] *See id.*

transmission lines to address reliability concerns."[56] EKPC's preferred option provides much more capacity for future load growth on the 69 kV system in the area, utilizes existing rights-of-way to establish a new line into the area, and takes advantage of the available construction work efficiencies that are available due to the timing of the 69 kV rebuild. All of these alternatives that were considered – including the costs, benefits and reasons for not selecting certain alternatives – are discussed in greater detail in the Transmission Planning Study.

4. EKPC Thoroughly Evaluated the Alternative Routes for the Project

Once the Transmission Planning Study determined the best electrical solution for the problems in the area, EKPC engaged NV5 Geospatial ("NV5") to perform a Transmission Route Selection to determine the optimal routing of the 138 kV line between the existing EKPC Fawkes Substation and the point where the Duncannon Lane Radial Tap intersects the KU Fawkes – West Berea 69 kV circuit.[57] EKPC included a copy of the Electric Transmission Route Selection Technical Report as Exhibit 18 to the Application. NV5 developed a thorough report detailing its experts' analysis of route alternatives utilizing the Electric Power Research Institute-Kentucky ("EPRI-KY") methodology.[58] EKPC determined it was reasonable and prudent to evaluate the existing 69 kV right-of-way (Route 1 in the Transmission Route Selection Report) as an alternative route for the 138 kV transmission line to take advantage of the 69 kV transmission line rebuild

[56] *Kentucky Utilities,* Order, Case No. 2022-00066, p. 21. (*citing* Case No. 2020-00062, *Electronic Application of Kentucky Power Company for a Certificate of Public Convenience and Necessity to Construct a 138 kV Transmission Line and Associated Facilities in Pike and Floyd Counties, Kentucky,* (Ky. PSC Dec. 29, 2020), final Order; *see also,* Application (filed Sep. 3, 2020), Direct Testimony of Nicholas C. Koehler at 4-5 for an explanation of the double circuit proposed.

[57] *See* NV5 Geospatial's *Electric Transmission Route Selection Technical Report* was attached to the Application at Exhibit 18. ("Siting Report").

[58] *See* Siting Report, p. 2.

that was planned for an in-service date of December 2024.[59] EKPC also chose to evaluate the existing West Berea 138 kV transmission line right-of-way (Route 4 in the Transmission Route Selection Report).[60] In all, ten routes were sent to NV5 for scoring. Upon review of the NV5 route scoring, EKPC noted that Route 1 (the use of the existing 69 kV Fawkes-Duncannon right-of-way) scored the best in the engineering, built, natural and simple environments, indicating that the use of the existing 69 kV right-of-way was the least impactful of all the alternatives.[61] More details on the process and the criteria used are contained in the Transmission Route Selection Report, which was included as Exhibit 18 to the Application. EKPC thoroughly reviewed and analyzed all alternate routes and chose the most prudent, least cost, and least impactful to the community as the proposed route.

The Commission has found that similar projects do not result in wasteful duplication. In Case No. 2021-00275, the Commission found:

> The proposed construction will not compete with any other public utilities, corporations, or persons. BREC has demonstrated that it needs the proposed projects. BREC has also taken steps to ensure that the projects are not excessive in investment or scope. Project A largely adds a new circuit over an existing transmission line utilizing existing rights-of-way. This results in less cost, less impact to property owners, and no duplication of facilities.[62]

EKPC proposes to do the same thing. Double-circuiting the 138 kV transmission line with the existing 69 kV line takes advantage of the existing opportunity to combine this design and

[59] *See* LeMaster Testimony, pp. 14-16.

[60] *See id.* at 15-16.

[61] *See id.* at 17-18.

[62] *Big Rivers* at p. 11.

construction with the rebuild of the 69 kV line. This will ultimately result in less cost, less impact to property owners, and no duplication of facilities.

5. Rebuilding the 69 kV Transmission Line and Double Circuiting the 138 kV Transmission Line at the Time of the Rebuild is the Most Prudent Alternative and the Opportunity Will Not Exist After the Rebuilding Starts

EKPC has proposed the double-circuiting of the 138 kV transmission line at this time, because it has the opportunity to take advantage of the required rebuild of the 69 kV Fawkes-Duncannon transmission line.[63] Due to the condition of the existing 69 kV transmission line, EKPC must rebuild it from KU Fawkes to the Duncannon Lane Tap, including installing new structures and new conductor.[64] Since this rebuild must take place sooner rather than later, EKPC requested this CPCN to allow EKPC to take advantage of this rebuild and construct it as a 69 kV/138 kV double-circuit transmission line. This option will minimize the impact to the surrounding community, the landowners and the landscape.[65] By installing the 138 kV transmission line at the time of the 69 kV rebuild, there will only be one construction disruption to the community, there will be less structures that need to be installed, no new right-of-way will have to be obtained, and there will be less impact to operability in the area due to fewer required outages.[66]

If EKPC does not take advantage of the 69 kV rebuild to double-circuit with the new 138 kV transmission line, this opportunity will not exist later.[67] Building a new 138 kV transmission

[63] *See* LeMaster Testimony, pp. 4-7; Responses to Staff's Second DR Item 15; Responses to Staff's Third DR Item 7.

[64] *See* LeMaster Testimony pp. 6-7; Exhibit LL-1 to LeMaster Testimony.

[65] *See* Responses to Staff's Third DR Item 11.

[66] *See* HVR at 2:30:45 – 2:34:08; Responses to Staff's Second DR Item 15.

[67] *See* HVR at 1:39:10-1:40:49.

line at a later date will cost EKPC's Owner-Members $7.6 to $9.1 million more, will impact the community with additional construction disruption, will require the purchase of additional right-of-way, will clutter the landscape with additional structures if a separate route is utilized for the 138 kV line and will cause additional facility outages in the area due to necessary near-term outages for the 69 kV rebuild along with future outages of existing facilities that would be required for the new construction of a 138 kV line.[68]

6. Other Alternatives Discussed at the Hearing are not Feasible

During the hearing in this matter, EKPC was asked about rebuilding the 69 kV transmission line with the equipment and structures needed to add the 138 kV transmission line as a double-circuit at a later date.[69] This is not a feasible option. The entire line would have to be redesigned.[70] Furthermore, EKPC believes that constructing the line in this way would essentially circumvent the statutory requirements for siting a new transmission line 138 kV or higher and one mile or more in length. The cost of the 138 kV conductor installation represents roughly 10% of the currently estimated total line cost, so the vast majority of the investment to build structures to support the future 138 kV wires would have already been made prior to any CPCN application for the 138 kV circuit. Additionally, the proposed double-circuit structures as currently designed would not be sufficient for only the 69 kV wire loading due to imbalanced load on structures designed for balanced loading. This may seem counterintuitive, but reinforcement of the structures would be required to resist the interim load conditions and would increase the cost of the currently

[68] *See* Responses to Staff's Second DR Item 15; Responses to Staff's Third DR Item 1.

[69] *See* HVR at 2:08:45 – 2:13:17.

[70] *See* HVR at 2:10:01 – 2:13:17.

proposed project. Burdening EKPC members with greater than necessary construction costs and speculating that a CPCN would be granted for the future 138 kV circuit would be imprudent.

The other alternative that EKPC was asked about at the hearing was double-circuiting the proposed 138 kV transmission line with the existing 138 kV Fawkes-West Berea line.[71] As set forth above, EKPC included this option as an alternative within the Transmission Route Selection Report. This option was not chosen because, out of 10 routes, it ranked 9th in the Standard Route scoring and 10th in the Calibrated Route scoring in the NV5 Transmission Route Selection Report, illustrating that this route was least desirable in regard to impact.[72] Based on information provided in response to Staff's Post-Hearing Information Request, Item 4, the cost associated with this construction would be $14 million more than the proposed double-circuit project.[73] Furthermore, this option would cause the removal and replacement of an existing transmission line that is not nearing the end of its service life, likely stranding assets, and the route would require purchase of approximately 55 acres of new right-of-way.[74] This route would also impact landowners with multiple construction projects, and an increased number of transmission structures.[75] Lastly, extended outages of these circuits are problematic now and will become even more so in the future as power demand increases in the region.[76]

[71] *See* HVR at 2:39:56 – 2:50:53.

[72] *See* Siting Report p. 77; LeMaster Testimony, p. 15.

[73] *See* Responses to Commission Staff's Post-Hearing Request for Information, Item 4 (filed Feb. 2, 2023).

[74] *See id.*

[75] *See* Responses to Staff's PHDR Item 4.

[76] *See id.;* Responses to Staff's Second DR Item 15.

If the CPCN is not granted for the double-circuit 138 kV transmission line as proposed, EKPC would either establish a new route around the more densely developed areas near Richmond, or remove the newly rebuilt 69 kV line in the more densely developed areas and replace it with a double circuit line as is currently being proposed.[77] EKPC provided extensive information in response to Commission Staff's Third Request for Information Item No.3 regarding why future colocation of the needed 138 kV line alongside the 69 kV rebuilt line is not a viable option.[78] Throughout the proceeding there have been many questions regarding the costs of these alternatives. Below is a table containing the projected costs for each of these alternatives.[79]

	Fawkes - Duncannon Lane 138kV Transmission Line Configurations	
	Proposed Alternative and Evaluations of Alternatives resulting from PSC Data Requests	Total Cost
1	Proposed double circuit 69 kV/138 kV is the preferred route and option to provide 138 kV transmission support to the area.	$19M
2	Future collocation of the 138kV alongside the 69kV rebuilt line is not a viable option as outlined in EK response to DR3-3. Cost was not evaluated for a full length collocation of the 138 kV and the 69 kV circuits	X
3	Rebuild the 69 kV now ($8.5M) and then remove and replace the newly rebuilt 69 kV with a 138kV/69 kV double circuit ($19M)	$27.5M
4	Rebuild the 69 kV now ($8.5M) and establish a new route for the future construction of the 138kV circuit from Fawkes – Duncannon Lane. EK evaluated Route 3 shown of the Routing Study (exhibit 18) – 9 Miles of new 138 kV line (estimated as a collocate in less densely developed areas) ($19.6M)	$28.1M

EKPC has fully demonstrated that there is a need for the proposed 138 kV transmission line and that adding it to the system as a double-circuit to the rebuild of the existing 69 kV transmission line is the superior choice when compared to all feasible alternatives. The Project will timely address an immediate need and will not result in wasteful duplication. Accordingly,

[77] *See* HVR at 2:04:10-2:06:02; 2:08:05 – 2:13:17; EKPC Responses to Commission Staff's Second Request for Information, Item 15; EKPC's Responses to Commission Staff's Third Request for Information, Item 7 (January 20, 2023).

[78] *See* Responses to Staff's Third DR Item 3.

[79] *See* Responses to Staff's Second DR Item 15; Responses to Staff's Third DR Item 7.

the Commission should grant EKPC a CPCN to construction the 138 kV transmission line as proposed.

C. The Commission Should Declare that the Substation Facilities Proposed by EKPC are Ordinary Course Extensions of its System and do not Require a CPCN.

To fully effectuate its plan for improving and safeguarding the transmission system in this portion of Madison County, EKPC will also need to construct certain substation facilities. Unfortunately, the precise timing of the need to bring these facilities online is difficult to ascertain. Experience indicates, however, that customers often have very high expectations for how quickly new, large power loads can be served and the market for electric industry goods is still adversely impacted by lingering supply chain issues associated with COVID-19's global pandemic.[80] To stay ahead of the curve, EKPC requested guidance from the Commission as to whether these additional substation facilities, based upon specific parameters set forth in the case record, would require a CPCN.[81] It is EKPC's belief that each of these substations facilities are extensions in the ordinary course of business and do not require a CPCN.

1. Overview of Substation Projects

EKPC proposes to construct the new Madison County Switching Station to accommodate the rebuilt 69 kV transmission line.[82] The 69 kV portion of the Madison County Switching Station would be built regardless of whether or not a CPCN is granted for the 138 kV portion of the proposed project.[83] The 69 kV portion of the Madison County Switching Station is needed

[80] *See* HVR 1:10:49-1:12:03.

[81] *See* Application p. 6-8.

[82] *See* LeMaster Testimony, pp. 9-10; Responses to Staff's Second DR Item 2.

[83] *See id.*

immediately to address reliability and protection scheme concerns.[84] The 138 kV portion of Madison County Switching Station would not be constructed if the 138 kV transmission line is not approved by the Commission.[85] However, if the Commission grants the CPCN as proposed for the 138 kV/69 kV double-circuit, EKPC would install a 138 kV – 69 kV stepdown transformer and associated equipment to complete the Madison County Switching Station when a specific need arises.[86] This tie-in of the 138 kV to the 69 kV system would provide an additional 55 MW of load-serving capacity on the 69 kV system.[87]

The New Industrial Substation will not be constructed unless a new industrial load develops in the area.[88] At that time, it would be constructed to meet the industrial customer's needs.[89] EKPC constructs similar substations for new industrial customers on a regular basis.[90] A tie-in of the 138 kV line to a new industrial substation would allow EKPC to serve 179 MW of load at that location.[91]

The Fawkes Substation Expansion is needed if the 138 kV portion of the project is granted.[92] The addition of the 138 kV/69 kV double-circuit will establish a new 138 kV circuit.[93]

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[84] *See* HVR 51:04-52:41; Adams Testimony, pp. 12-15; Responses to Staff's First DR Item 6.

[85] *See* HVR 51:04 – 52:41.

[86] *See* HVR 52:41 – 54:08.

[87] *See* HVR 1:19:03 – 1:20:34.

[88] *See* Responses to Staff's Second DR, Item 5; Responses to Staff's Third Request No. 1; HVR at 55:15-56:22.

[89] *See id.*; HVR 55:29-56:22.

[90] *See* HVR at 1:10:49-1:43:44.

[91] *See* HVR at 1:19:03-1:20:43.

[92] *See* Responses to Staff's Second DR Item 1. HVR at 54:15-55:15; 1:12:03-1:15:42.

[93] *See* Adams Testimony, p. 12; Responses to Staff's First DR Item 6; HVR at 48:00-50:00; 1:12:03-1:16:01.

In order to terminate that 138 kV circuit and connect it into the EKPC transmission system, EKPC will need to expand its Fawkes substation to establish a new circuit-breaker position because none are currently available.[94] EKPC plans to split the 138 kV bus into two separate busses with a connecting bus-tie breaker between them to improve the reliability of the 138 kV system.[95] This will aid in reducing the likelihood of widespread outages for a substation bus fault or failure of a circuit breaker at the substation.[96] In addition, EKPC will reroute some of the existing 138 kV lines terminating at this substation to connect to the new portion of the substation, thereby splitting those lines between the two busses and providing maximum reliability for the area.[97]

2. Ordinary Course of Business Criteria

EKPC does not believe that any of these proposed facilities require a CPCN from the Commission. Each of these facilities are ordinary extensions in the normal course of business because they do not (1) result in wasteful duplication of plant, equipment property, or facilities; (2) compete with existing certificates or service of other utilities; or (3) involve a sufficient capital outlay to materially affect the existing financial condition or require an increase in EKPC's wholesale rates to its owner-members.[98] EKPC has discussed in detail above how this project does not result in wasteful duplication. That would apply to each of these proposed facilities as well.

The proposed facilities will not compete with existing certificates or service of other utilities. EKPC has conducted desktop reviews and field surveys to determine the location of other

[94] *See id.*

[95] *See* Responses to Staff's DR Item 6.

[96] *See id.*

[97] *See id.*

[98] *See* 807 KAR 5:001 Section 15(3).

utility facilities and services in the area.[99] EKPC has confirmed that the proposed facilities will not compete with any existing certificates or services of any other utility. Kentucky Utilities Company ("KU") has facilities in the area.[100] EKPC has conferred with KU to ensure that no conflict will develop due to the work EKPC will be doing at the EKPC Fawkes substation.[101] EKPC will only be providing service to support the retail customers located within the service territory of and directly served by its owner-member, Blue Grass Energy.[102] In addition, the area optioned by the City of Richmond planned for the industrial megasite is entirely within Blue Grass Energy's service territory. Since the hearing, new information has been provided to EKPC regarding the Richmond Board of Commissioners' option-to-purchase for this 600 acre industrial megasite that is exclusively in Blue Grass Energy's service territory, instead of a small portion being located in KU's service territory as testified to at the hearing by Darrin Adams.[103]

The Commission found in the *Big Rivers* case that similar projects were extensions in the ordinary course of business and did not require a CPCN. In doing so, the Commission stated:

> Here, the proposed projects do not result in wasteful duplication, and do not compete with the facilities of other existing public utilities. The total estimated construction costs for the combined three projects is $12,700,000, which is 1.61 percent of BREC's $786,621,674 net utility plant as of December 31, 2020. The estimated cost to construct Project B is $782,000 which is less than 0.1 percent of BREC's net utility plant. The estimated cost to construct Project C is $4,462,000 and is 0.57 percent of net utility plant. The combined estimated cost of Projects B and C is $5,244,000 represents only 0.67 percent of BREC's net utility plant… and any Large Industrial Customer locating at the Industrial

[99] *See* Responses to Staff's Second DR Item 5.

[100] *See id.*

[101] *See id.*

[102] *See id.*

[103] *See* HVR at 59:22-59:48.

> Park West will be required to provide a proportionate share of credit support for the construction costs. For these reasons the Commission finds the proposed projects will not materially affect BREC's existing financial condition.[104]

Project A was a 3.8 mile 161 kV transmission line with the majority of the line to be built over its existing 69 kV line.[105] Project B was a 161 kV terminal addition within its existing substation and Project C was a new 161 kV/13.8 kV substation adjacent to a Jackson Purchase substation at the Industrial Park.[106] Big Rivers was proposing similar facilities as EKPC is proposing in this proceeding.

The cost to construct the proposed facilities will not materially affect EKPC's financial condition and its wholesale rates to its sixteen owner-members will not be increased because of these facilities.[107] EKPC's net utility plant is estimated to be $3.0 billion as of December 31, 2021.[108] EKPC believes that each of these facilities should be viewed individually but even taken in their entirety they do not require a total capital investment that would materially affect the financial condition of EKPC. The total estimated construction cost of the Madison County 69 kV Switching Station is $7.5 million which is 0.25% of EKPC's net utility plant.[109] The addition of the 138 - 69 kV Step Down at the Madison County Switching Station has estimated incremental construction costs of $9 million which is 0.3% of EKPC's net utility plant.[110] The estimated cost

[104] *Big Rivers* at p. 13.

[105] *See id.* at 3-4.

[106] *See id.* at 4-5.

[107] *See* Responses to Staff's Second DR Item 5; Responses to Staff's Third DR.

[108] *See id.*

[109] *See id.*

[110] *See id.*

of the Fawkes Expansion is $11.5 million representing 0.38% of EKPC's net utility plant and the New Industrial Substation is estimated to range between $13 million to $19 million, which represents 0.43% to 0.63% of EKPC's net utility plant.[111] These facilities as a whole would require a total capital investment less than 1.5% of EKPC's net utility plant.[112] This 1.5% investment will be constructed or expanded at different times, dependent upon circumstances.[113] This separation in time further underscores how the financial impact of the proposed substation projects will have no material impact upon EKPC's financial condition or require an immediate increase in its rates.[114] Therefore, the projects will not materially affect EKPC's financial condition.

EKPC has shown that none of the facilities proposed, other than the construction of the 138 kV transmission line requires a CPCN from the Commission. These projects are needed, will not result in wasteful duplication, will not compete with any other utilities and will not materially affect EKPC's financial condition.

D. Impacts of Regulatory Obligations to Meeting Service Needs of EKPC's Owner-Members

EKPC has a duty to provide safe, reliable service to its owner-members and their existing and future customers.[115] Events like WSE and load growth create the need for transmission owners to construct or upgrade electrical infrastructure to meet the current and future demand on their systems.[116] In this area, either industrial load growth or the inevitable increased load forecast due

[111] *See id.*

[112] *See id.*

[113] *See* Responses to Staff's Second DR, Item 5. HVR at 46:44-50:00.

[114] *See* HVR at 31:24-42:58.

[115] *See* KRS 278.030; KRS 278.260.

[116] *See* HVR at 1:32:00-1:32:58; 2:51:15-2:54:33.

to recent WSE will require EKPC to react quickly to be able to serve its owner-members' demands safely and reliably.[117] The timelines associated with execution of the New Industrial substation projects, with the inclusion of a CPCN process, large power transformer material acquisition, and standard construction practices exceeds two years.[118] This scenario generally does not allow EKPC adequate time to meet the imminent needs of their owner-members in this area. EKPC believes a CPCN is not required for the substation work, but requires regulatory certainty in order to be able to confidently meet customer expectations. An order denying EKPC's request as outlined in the Application will make it difficult for EKPC to support industrial load growth in the Commonwealth, or to reliably serve EKPC owner-members.

VI. CONCLUSION

EKPC has shown that the proposed double-circuit addition of the 138 kV transmission line, at the time of the rebuild of the 69 kV line, is the most prudent and is the overall least-cost alternative to address all the issues in the area. EKPC did review other lower cost alternatives, but quickly ascertained that those alternatives would not address all the power flow issues in the area. These alternatives would be the equivalent of placing a band-aid on the system for a temporary fix with a permanent solution having to be undertaken sooner rather than later at an increased cost to EKPC's owner-members. EKPC has demonstrated that there is a need for the proposed double-circuit 138 kV transmission line. WSE validated EKPC's concern regarding the potential for higher load materializing in the area. The increased load on the residential substations in the area during WSE was approximately 13%. During a typical operating day for industrial facilities in the area, this would have exceeded the remaining 3 MW load-serving capacity EKPC has available in

[117] *See* Responses to Staff's Third DR Item 6. HVR at 2:51:15-2:54:33.

[118] *See* HVR at 1:10:49-1:43:44.

the area with only the existing 69 kV transmission line. In addition, with the Richmond Board of Commissioners acquiring an option to purchase property to develop an industrial megasite, the anticipated industrial load growth in the area is expected to develop at a much faster rate than originally thought.

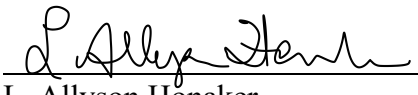
EKPC has shown that it does not have adequate facilities in the area to meet this anticipated load growth, or to meet the need that developed during WSE if another such event occurs on a day other than a holiday weekend. EKPC has also provided evidence to show that the proposed double-circuit 138 kV/69 kV transmission line will not result in wasteful duplication. EKPC evaluated numerous transmission planning electrical alternatives along with numerous routes for the proposed Project, with the help of NV5. EKPC provided detailed information on each of these alternatives in its Transmission Planning Study, in NV5's Report, in responses to data requests and throughout the written testimony and the testimony given at the hearing in this matter.

EKPC has also shown that the additional substation facilities proposed are extensions in the ordinary course of business and are therefore exempt from the requirement to obtain a CPCN. The facilities are needed to adequately serve the anticipated load growth in the area. The 69 kV portion of the Madison County Switching Station is also needed to address existing reliability and system-protection concerns. These projects individually, and taken as a whole, will not have a material effect on EKPC's financial position and they will not interfere with the facilities of any other Commission regulated utility or cause EKPC to raise its rates in the near term. However, if the Commission disagrees with EKPC and deems a CPCN is required, EKPC has provided sufficient evidence to show that these facilities are also needed and will not result in wasteful duplication. Each of these facilities is discussed in the Transmission Planning Study and includes

the alternatives that were reviewed by EKPC. There was also evidence presented in the written testimony, in responses to data requests and in the testimony provided at the hearing in this matter.

WHEREFORE, on the basis of the foregoing, EKPC respectfully requests the Commission to issue a CPCN for the construction of the proposed 138 kV line as a double circuit with the 69 kV transmission line. EKPC also respectfully requests a Declaratory Order from the Commission that the additional substation facilities do not require a CPCN or, in the alternative, that EKPC has met its burden and should be granted a CPCN for the substation facilities.

Respectfully submitted,



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CERTIFICATE OF SERVICE

This is to certify that the foregoing electronic filing was transmitted to the Commission on February 10, 2023 and that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding. Pursuant to the Commission's July 22, 2021 Order in Case No. 2020-00085 no paper copies of this filing will be filed.

Counsel for East Kentucky Power Cooperative, Inc.