

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	)	CASE NO.
TRANSMISSION FACILITIES IN MADISON	)	2022-00314
COUNTY, KENTUCKY; AND (2) DECLARATORY	)	
ORDER CONFIRMING THAT A CERTIFICATE OF	)	
PUBLIC CONVENIENCE AND NECESSITY IS	)	
NOT REQUIRED FOR CERTAIN FACILITIES	)	

ORDER

On October 27, 2022, East Kentucky Power Cooperative, Inc. (EKPC) filed an application, pursuant to KRS 278.020(2) and 807 KAR 5:001E, Section 15, for a Certificate of Public Convenience and Necessity (CPCN) authorizing it to construct a new 7.7-mile, 138-kilovolt (kV) transmission line to be added as a double circuit on new structures being installed as part of a 69 kV rebuild in Madison County, Kentucky.<sup>1</sup> EKPC also requested a declaratory order pursuant to 807 KAR 5:001E, Section 19, that a CPCN is not required for (1) the expansion of the EKPC Fawkes substation (Fawkes Expansion); (2) construction of the Madison County 69 kV Switching Station near the Duncannon Lane Tap (Madison County Switching Station); (3) placement of a 138 kV to 69 kV step-down transformer; and (4) construction of a new substation to serve an industrial park (New

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<sup>1</sup> Application at 4.

Industrial Substation).<sup>2</sup> EKPC also requested that, if the Commission finds that a CPCN is necessary for the four other projects, the Commission approve the CPCN.<sup>3</sup>

EKPC stated that it is seeking authority to build the 138 kV double-circuit transmission line because it must rebuild the current 69 kV transmission line due to identified overload and aging infrastructure. Adding the 138 kV transmission line as part of the rebuild and construction of the other projects utilizes efficiencies in cost, land use, and construction that will provide additional load capacity and reliability in the area.<sup>4</sup> The total estimated cost for the projects is \$67,000,000.<sup>5</sup> EKPC plans to initially fund the project with general cash reserves and then later refinance with long-term debt issued by Rural Utility Service (RUS).<sup>6</sup> EKPC estimated that the annual cost of operations of the 138 kV transmission line as \$560,700<sup>7</sup> and the estimated annual cost of operations for the additional projects as \$1,143,800.<sup>8</sup>

By Order issued on November 4, 2023, the Commission established a procedural schedule for the orderly processing of this matter and provided a deadline to request intervention.<sup>9</sup> No one requested intervention. No public comments were filed. EKPC

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<sup>2</sup> Application at 4.

<sup>3</sup> Application at 7.

<sup>4</sup> Application at 8.

<sup>5</sup> Application, Exhibit 17, Direct Testimony of Laura LeMaster (LeMaster Testimony) at 10-11.

<sup>6</sup> Application at 5.

<sup>7</sup> Application at 5.

<sup>8</sup> EKPC's Response to Commission Staff's First Request for Information (Staff's First Request) (filed Nov. 22, 2022), Item 4.

<sup>9</sup> Order (Ky PSC Nov. 4, 2022).

responded to three requests for information from Commission Staff.<sup>10</sup> The Commission held a formal hearing on January 24, 2023. EKPC filed its responses to post-hearing requests for information,<sup>11</sup> a post-hearing motion for administrative notice,<sup>12</sup> and a final brief.<sup>13</sup> The matter now stands submitted for a decision.

### BACKGROUND

EKPC is an electric utility and generation and transmission cooperative that provides electric generation capacity and electricity to its sixteen owner-member distribution cooperatives, which in turn, distribute and sell electricity to approximately 545,500 customers in 87 Kentucky counties.<sup>14</sup> EKPC owns and operates 2,965 megawatts (MW) of net summer generating capacity and 3,267 MW of net winter generating capacity.<sup>15</sup> EKPC owns coal-fired units, natural gas units, landfill-gas-to-energy facilities, and a community solar facility.<sup>16</sup>

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<sup>10</sup> EKPC's Response to Staff's First Request; EKPC's Response to Commission Staff's Second Request for Information (Staff's Second Request) (filed Dec. 15, 2022); and EKPC's Responses to Commission Staff's Third Request for Information (Staff's Third Request) (filed Jan. 20, 2023).

<sup>11</sup> EKPC's Response to Commission Staff's Post-Hearing Requests for Information (Staff's Post-Hearing Request) (filed Feb. 2, 2023) .

<sup>12</sup> EKPC's Motion to Take Administrative Notice (filed Feb. 2, 2023). EKPC requested that the Commission take notice of an attached Order of the Richmond Board of Commissioners authorizing the city of Richmond to enter into an option-to-purchase contract with Begley Properties, LLC for a 600-acre tract of land to develop an Industrial Mega-Site.

<sup>13</sup> EKPC's Final Brief (filed Feb. 10, 2023) (Post-Hearing Brief).

<sup>14</sup> Application at 2.

<sup>15</sup> Application at 2.

<sup>16</sup> Application at 2–3.

EKPC has been a member of the PJM Interconnection, LLC (PJM) since June 1, 2013.<sup>17</sup> PJM is a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission (FERC). PJM operates EKPC's transmission system.<sup>18</sup>

### PROPOSED PROJECTS

EKPC stated there is a current 69 kV transmission line running from the Fawkes substation to the Duncannon Lane Tap Location that must be replaced because it is at the end of its useful life.<sup>19</sup> The modeling indicated the 69 kV line would experience thermal overload in the 2022/2023 winter, and there is additional load growth expected in the area.<sup>20</sup> In planning for the replacement of the 69 kV line, EKPC decided the best course of action was to build a 138 kV and 69 kV double-circuit transmission line because it will address the thermal overload and allow for future load growth in the area.<sup>21</sup>

The 69 kV transmission line will begin at the north end of the project area at the Kentucky Utilities' (KU) Fawkes Substation. Until all the components of the projects are completed, the 138 kV transmission line will end at the KU Fawkes Substation as well. When the Fawkes Expansion is completed, the 138 kV transmission line will run 0.4 miles from the KU Fawkes Substation to the EKPC Fawkes Substation. The current 69 kV infrastructure will be removed and replaced with the double-circuit transmission circuit

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<sup>17</sup> Application at 3.

<sup>18</sup> Application at 3.

<sup>19</sup> Application, Exhibit 16, Direct Testimony of Darin Adams (Adams Direct Testimony) at 4 and Application, Exhibit 17, Direct Testimony of Laura LeMaster (LeMaster Direct Testimony) at 4.

<sup>20</sup> Adams Direct Testimony at 8.

<sup>21</sup> LeMaster Direct Testimony at 7.

along the entire route.<sup>22</sup> The double-circuit rebuild will continue from the Fawkes Substation for approximately 7.7 miles in the existing 69 kV right-of-way (ROW). EKPC initially requested permission to move the centerline up to 100 feet in either direction, but later, in the proceeding, provided testimony that it will not be moving the centerline and will only use the current ROW.<sup>23</sup> At the south end, the double circuit will end at a current transmission structure.<sup>24</sup> The 69 kV line portion of the rebuild will connect at a transmission structure to the existing EKPC 69 kV transmission line from the Duncannon Lane Tap point to the Crooksville Tap point.<sup>25</sup> The 69 kV line portion of the double-circuit transmission line will be used as soon as construction is completed. The 138 kV portion of the double-circuit transmission line will not initially be connected or operated until the Fawkes Expansion and the Madison County Switching Station are completed.<sup>26</sup> After the double-circuit transmission line is completed, but before the 138 kV substation work has been completed, the 138 kV line will be operated at 69 kV and connected to the 69 kV line with jumpers for the entirety of the 7.7 miles.<sup>27</sup>

As part of the 138 kV double-circuit rebuild, EKPC plans several additional projects. The Fawkes Expansion substation work will create a new circuit breaker position to connect the 138 kV line to the transmission system.<sup>28</sup> The current 138 kV bus

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<sup>22</sup> LeMaster Direct Testimony at 7.

<sup>23</sup> Application at paragraph 18, Hearing Video Transcript (HVT) at 11:17:45, and HVT at 11:21:20.

<sup>24</sup> LeMaster Direct Testimony at 8.

<sup>25</sup> LeMaster Direct Testimony at 8.

<sup>26</sup> LeMaster Direct Testimony at 8.

<sup>27</sup> LeMaster Direct Testimony at 8–9.

<sup>28</sup> EKPC's Response to Staff's First Request, Item 6(c).

will be split into two separate busses with a connecting bus-tie breaker.<sup>29</sup> Other existing 138 kV lines will be rerouted to different positions at the substation to split the lines between different busses.<sup>30</sup> The new 138 kV line will then run 0.4 miles from the EKPC Fawkes Substation to the KU Fawkes Substation where it will connect with the EKPC 69 kV transmission line.

Toward the southern end of the rebuild, EKPC will also construct the Madison County Switching Station.<sup>31</sup> The switching station will be constructed near the location where the Duncannon Lane radial tap currently connects to the KU Fawkes – West Berea 69 kV line.<sup>32</sup> The Madison County Switching Station will create four circuits with no more than four distribution substations served from any of the new circuits.<sup>33</sup> The 69 kV portion of the Madison County Switching Station must be built for system support with or without the additional 138 kV EKPC Fawkes – Duncannon Lane Tap circuit for which the CPCN was requested.<sup>34</sup>

At the Madison County Switching Station, a 138 kV–69 kV step-down transformer would also be installed as part of the project.<sup>35</sup> The transformer would be used to connect the KU Fawkes–West Berea 69 kV circuit to the new 138 kV line to be built from the EKPC

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<sup>29</sup> EKPC’s Response to Staff’s First Request, Item 6(c).

<sup>30</sup> EKPC’s Response to Staff’s First Request, Item 6(c).

<sup>31</sup> LeMaster Direct Testimony at 9.

<sup>32</sup> LeMaster Direct Testimony at 9.

<sup>33</sup> EKPC’s Response to Staff’s First Request, Item 6(a).

<sup>34</sup> EKPC’s Response to Staff’s First Request, Item 6(a).

<sup>35</sup> LeMaster Direct Testimony at 9-10.

Fawkes substation to provide support to the 69 kV system in the area when the customer demand in the area exceeds the current capacity of the system.<sup>36</sup>

The final portion of the proposed project is the construction of the New Industrial Substation. The New Industrial Substation will be constructed at the southern end of the project and would be the final termination point of the new 138 kV line near the industrial site near Interstate 75/Duncannon Lane.<sup>37</sup> The new transmission substation will connect to the Madison County Switching Station with the necessary distribution transformers to serve large industrial customers at the new industrial park.<sup>38</sup> The scope and design of the substation will be designed based on customer need when they commit to build in the industrial park.<sup>39</sup>

#### LEGAL STANDARD

The Commission's standard of review regarding a CPCN is well settled. Under 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.<sup>40</sup>

"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.

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<sup>36</sup> EKPC's Response to Staff's First Request, Item 6(b).

<sup>37</sup> Adams Direct Testimony at 5 and EKPC's Response to Staff's First Request, Item 6(d).

<sup>38</sup> EKPC's Response to Staff's First Request, Item 6(d).

<sup>39</sup> EKPC's Response to Staff's First Request, Item 6(d).

<sup>40</sup> *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 252 S.W.2d 885 (Ky. 1952).

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The 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.<sup>41</sup>

“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.”<sup>42</sup> 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.<sup>43</sup> Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.<sup>44</sup> All relevant factors must be balanced.<sup>45</sup>

## DISCUSSION AND FINDINGS

### Need

A like-kind rebuild of the current 69 kV Fawkes – Duncannon transmission line would not require a CPCN pursuant to KRS 278.020(2) and 807 KAR 5:120, Section 2.<sup>46</sup>

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<sup>41</sup> *Kentucky Utilities Co.* at 890.

<sup>42</sup> *Kentucky Utilities Co.* at 890.

<sup>43</sup> 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).

<sup>44</sup> 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).

<sup>45</sup> Case No. 2005-00089, Aug. 19, 2005 final Order at 6.

<sup>46</sup> See KRS 278.020(2) and 807 KAR 5:120, Section 2.



EKPC maintained that the four secondary projects are extensions of EKPC's existing systems in the ordinary course of business because the projects do not result in wasteful duplication, do not compete with existing certificates or other utilities, or do not involve a sufficient capital outlay to materially affect the existing financial condition of EKPC or require raising wholesale rates.<sup>47</sup>

The need for the Fawkes Expansion, the step-down transformer, and the New Industrial Substation stem from the construction of the 138 kV transmission line.<sup>48</sup> Without the 138 kV line, there is not a need to upgrade or extend EKPC's system. Additionally, the Madison County Switching Station is a component of the 138 kV transmission line even if it is also necessary for the 69 kV transmission line. The projects are not isolated or individual projects. The Commission finds that the four additional projects are components of one electrical transmission project, and all require a CPCN.<sup>49</sup> Therefore, the Commission must determine if there is need for the project in its entirety.

EKPC stated the area south of Richmond has experienced residential and industrial load growth to the extent that the current transmission lines and substations are reaching capacity limits.<sup>50</sup> The current 69 kV line was originally built in 1957 and reconducted in 1987.<sup>51</sup> There have been numerous failures of structures and cross-

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<sup>47</sup> Application at 7 and EKPC's Response to Staff's Second Request, Item 5.

<sup>48</sup> EKPC's Response to Staff's Second Request, Item 1; EKPC's Response to Staff's Second Request, Item 3; and EKPC's Response to Staff's Second Request, Item 4.

<sup>49</sup> See Case No: 2019-00270, *Application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity to Construct a 161 KV Transmission Line in Meade County, Kentucky* (Ky. PSC Jan. 23, 2020) and Case No. 2022-00012, *Electronic Application of Big Rivers Electric Corporation for a Certificate of Public Convenience and Necessity to Construct a 161 kV Transmission Line in Henderson County, Kentucky* (Ky. PSC. Jun. 6, 2022).

<sup>50</sup> Adams Direct Testimony at 6.

<sup>51</sup> LeMaster Direct Testimony at 6.

arms on the line in recent years.<sup>52</sup> A mechanical loading analysis, using the National Electric Safety Code (NESC) Medium loading, found that 40 percent of the structures on the line could be loaded at over 100 percent of rated strength for new wooden poles, cross-arms, and braces<sup>53</sup> Given that most structures on this line are more than 65 years old, it is expected that the actual strength of the structures is less than the rated strength.<sup>54</sup> EKPC stated that it has experienced numerous structure and cross-arm failures along its line in the past five years.<sup>55</sup> There has also been an identified threat of thermal overloading on the current 69 kV line.<sup>56</sup> EKPC's planning criteria does not allow for drops below 90 percent under single contingency.<sup>57</sup>

EKPC provided information that it experienced its system peak on December 23, 2022, at 6:00 p.m., during Winter Storm Elliot.<sup>58</sup> EKPC stated that because it was a holiday, most of the industrial customers that are served on this circuit were not operational. EKPC provided information that the total residential load demand was 62.4 MW instead of the forecasted 55.9 MW and the industrial load demand was 50 MW lower than normal.<sup>59</sup> EKPC stated that, if another event like Winter Storm Elliot occurred

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<sup>52</sup> EKPC's Post-Hearing Brief at 7.

<sup>53</sup> LeMaster Direct Testimony at 6-7.

<sup>54</sup> LeMaster Direct Testimony at 6-7.

<sup>55</sup> LeMaster Direct Testimony at 7

<sup>56</sup> HVT at 10:06:23.

<sup>57</sup> HVT at 10:08:00. See EKPC's Response to Staff's Post-Hearing Request, Item 1 and

<sup>58</sup> EKPC's Response to Staff's Post-Hearing Request, Item 2.

<sup>59</sup> EKPC's Response to Staff's Post-Hearing Request, Item 2.

at any time when there was also industrial usage, voltage violations would have occurred.<sup>60</sup>

EKPC stated only 3 MW of additional load can be supported on the current system even with the rebuild of the 69 kV transmission line addressing the thermal overload.<sup>61</sup> EKPC stated it does not have the ability to serve any marginal increase in residential or industrial load in the area.<sup>62</sup> The tie-in of the 138 kV transmission line to the 69 kV transmission line at the Madison County Switching station will provide an additional 55 MW to that area.<sup>63</sup> The tie-in of the 138 kV transmission line at the New Industrial Substation will allow EKPC to provide 179 MW to that location.<sup>64</sup>

EKPC indicated that, during the transmission planning process to address the voltage issues and the increased demand in the area, the best course of action to address the need for the projects was to create the 138 kV–69 kV double-circuit transmission line because it would eliminate immediate issues and help EKPC plan for expected future system growth.<sup>65</sup> Even though the 138 kV line would not be needed immediately at that voltage, it will provide support for the overloaded area until the New Industrial Substation is built.<sup>66</sup> EKPC stated the 138 kV line operating at 69 kV will prevent deterioration until

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<sup>60</sup> EKPC's Response to Staff's Post-Hearing Request, Item 2.

<sup>61</sup> EKPC's Post-Hearing Brief at 7.

<sup>62</sup> EKPC's Post-Hearing Brief at 8.

<sup>63</sup> EKPC's Post-Hearing Brief at 25.

<sup>64</sup> EKPC's Post-Hearing Brief at 25.

<sup>65</sup> EKPC's Response to Staff's Second Request, Item 5.

<sup>66</sup> EKPC's Response to Staff's Second Request, Item 5.

needed at the 138 kV voltage level.<sup>67</sup> The Madison County Switching Station is needed immediately because of the system support that the new switching station will provide by splitting the circuit into four separate circuits with no more than 9.6 miles on any one circuit.<sup>68</sup> This will ensure better system protection by limiting the distance between circuit breakers.<sup>69</sup> The Fawkes Expansion and the placement of the step-down transformer will be done, as needed, to serve the 138 kV load.<sup>70</sup> EKPC provided information that there have been five inquiries from customers whose demand would be over 100 MW<sup>71</sup> interested in the area the New Industrial Substation would support. Additionally, EKPC provided a copy of the option to purchase the industrial megasite that the city of Richmond has executed.<sup>72</sup>

The Commission finds EKPC has demonstrated a need for the 138 kV–69 kV double-circuit transmission line and the four additional projects. EKPC has demonstrated mechanical and thermal loading issues under current conditions that necessitate the 69 kV portion of the circuit and the Madison County Switching Station as evidenced by the power flow studies and the updated load forecasts for the area to be served. Winter Storm Elliot highlighted the potential voltage and load issues that will materialize if there is any additional load growth. Considering the purchase agreement Richmond has

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<sup>67</sup> HVT at 10:03:40.

<sup>68</sup> EKPC's Response to Staff's Second Request, Item 6(a) and Response to Staff's Second Request, Item 2.

<sup>69</sup> EKPC's Response to Staff's First Request, Item 6(a).

<sup>70</sup> EKPC's Response to Staff's Third Request, Item 3.

<sup>71</sup> EKPC's Response to Staff's Post-Hearing Request, Item 1.

<sup>72</sup> EKPC's Response to Staff's Post-Hearing Request, Item 1; EKPC's Motion to Take Notice at 1; and EKPC's Post-Hearing Brief at 12.

executed to develop the industrial park, EKPC has demonstrated a reasonable likelihood of future load growth to the area that will require the 138 kV transmission line. Building the 138 kV line as a double circuit with the 69 kV rebuild also provides a more cost-effective way to complete the project given that EKPC is aware the load growth will require the 138 kV line soon.

The Commission cautions the finding of need in this instance should not be viewed as blanket approval for transmission projects to serve future need. In this instance, EKPC has shown through its power flow studies, transmission planning, and option to purchase the industrial megasite in the project area, that the need for the 138 kV transmission line will be present in the near future. EKPC does not have an amorphous need or desire to overbuild the system; rather there is a definite need that will come from the development of the industrial megasite. EKPC is also not engaging in speculative expansion on the backs of its existing customers by proposing to overbuild its system in the mere hope of future load growth. EKPC has demonstrated that its current facilities in the area are nearing the end of their useful life and a significant likelihood of future load growth which will require the proposed increase in transmission capacity. The grant of this CPCN only ensures that EKPC will be able meet its obligation to serve its member-owner Bluegrass Energy in an economic and timely manner.

#### Wasteful Duplication

Because the Commission has found that EKPC has demonstrated a need for the projects, the Commission must determine if the proposed projects create wasteful duplication. Generally, the Commission's analysis of wasteful duplication in transmission

line cases centers around the alternatives and the costs associated with the available alternative routes.

In this instance, EKPC followed the EPRI-Kentucky Transmission Line Siting Methodology and consulted with NV5 Geospatial to perform a Transmission Route Selection to determine the routing of the 138 kV line from the existing EKPC Fawkes Substation and where the Duncannon Lane Radial Line intersects the KU Fawkes the KU Fawkes – West Berea 69 kV circuit.<sup>73</sup> Initially, NV5 Geospatial did not include the route in which the existing 69 kV transmission line runs.<sup>74</sup> NV5 Geospatial then developed Macro Corridors to identify features and a suitability value is assigned.<sup>75</sup> The top five percent of the routes are then used to create the Phase I Study Area.<sup>76</sup>

After the Phase I Study Area was created, NV5 Geospatial created suitability surfaces in accordance with the EPRI-Kentucky Transmission Line Siting Methodology. This was then used to create the Composite Alternate Corridor. Due to the congestion in the area, the top ten percent of alternate corridors were used for routing the 138 kV line.<sup>77</sup> In discussions with NV5 Geospatial after initial study work was completed, EKPC determined that the best option for the 138 kV line would be to create a double circuit with the existing 69 kV line that was already scheduled to be rebuilt and in service December 2024 even though it was not fully within the siting corridor.<sup>78</sup> After these discussions, NV5

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<sup>73</sup> LeMaster Direct Testimony at 12.

<sup>74</sup> LeMaster Direct Testimony at 12.

<sup>75</sup> LeMaster Direct Testimony at 12.

<sup>76</sup> LeMaster Direct Testimony at 12.

<sup>77</sup> LeMaster Direct Testimony at 13.

<sup>78</sup> LeMaster Direct Testimony at 14.

Geospatial reconfigured the modeling to take into account the already present 69 kV line even though the EPRI-Kentucky Transmission Line Siting Methodology was not designed to take into account areas that are normally considered avoidance areas<sup>79</sup> EKPC elected to maintain the standard avoidance areas in the Composite Corridor development and decided to address them impacts in the scoring phase.<sup>80</sup> Ten routes were submitted to NV5 Geospatial for scoring.

The Expert Judgment scoring criteria were established before receiving scores from NV5 Geospatial. The Expert Judgment allows information to be considered that is not normally captured in the standard modeling.<sup>81</sup> EKPC discussed and determined the Expert Judgment and determined what would be utilized for the project. Specifically, the fact that the modeling did not determine between parcels that would be affected by the 138 kV line that would already be affected by the 69 kV line rebuild.<sup>82</sup> Based upon this, EKPC decided community impact would impact the Expert Judgment criteria.<sup>83</sup> NG5 Geospaital informed EKPC it could take into consideration the factor of the parcels that were already going to be impacted by the 69 kV line rebuild. EKPC asked that be put into the modeling because it would be a more reliable method than only using just the Expert Judgment criteria.<sup>84</sup>

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<sup>79</sup> LeMaster Direct Testimony at 14.

<sup>80</sup> LeMaster Direct Testimony at 14–15.

<sup>81</sup> LeMaster Direct Testimony at 15.

<sup>82</sup> LeMaster Direct Testimony at 15.

<sup>83</sup> LeMaster Direct Testimony at 16.

<sup>84</sup> LeMaster Direct Testimony at 16.

Routes 1, 2, and 8 were the three lowest scoring routes, with lower scoring representing more desirable routes, and were moved on for Expert Judgment scoring.<sup>85</sup> EKPC used the Expert Judgment criteria and determined that route one was the best option for the 138 kV line. Use of this route, creating the double circuit during the rebuild of the 69 kV transmission line, is least disruptive to the community and is the least cost.<sup>86</sup>

EKPC evaluated the costs between only rebuilding the 69 kV line now and building a 138 kV line later when the industrial growth occurs.<sup>87</sup> The estimated cost for the 69 kV rebuild is \$8.5 million. The cost to add the 138 kV line now as a double circuit is \$10.5 million for a total cost of \$19 million, for the transmission line portion of the project only.<sup>88</sup> If EKPC were required to build the 138 kV line in the future, it would require the entirety of the newly rebuilt 69 kV line to be removed and replaced with a double circuit. The cost for this would be an additional \$19 million.<sup>89</sup> This would result in a total project cost of \$27.5 million,<sup>90</sup> which would be an increase to the total project costs if done as one double circuit now of \$8.5 million.<sup>91</sup> If EKPC built only the 69 kV line now and later selected an alternate route outside of the 69 kV route corridor, the cost would be \$8.5 million for the

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<sup>85</sup> LeMaster Direct Testimony at 17.

<sup>86</sup> LeMaster Direct Testimony at 17-18. See Application, Exhibit 18 for the full Transmission Route Selection from NV5 Geospatial.

<sup>87</sup> EKPC's Response to Staff's Third Request, Item 7.

<sup>88</sup> EKPC's Response to Staff's Third Request, Item 7.

<sup>89</sup> EKPC's Response to Staff's Second Request, Item 15 and EKPC's Response to Staff's Third Request, Item 7.

<sup>90</sup> EKPC's Response to Staff's Second Request, Item 16 and EKPC's Response to Staff's Third Request, Item 7.

<sup>91</sup> EKPC's Response to Staff's Third Request, Item 7.



69 kV line, and the cost for the 138 kV line would be \$19.1 million.<sup>92</sup> The total cost for the projects would be \$28.1 million,<sup>93</sup> which would be an increase to the total project costs if done as one double circuit now of \$9.5 million.<sup>94</sup> The costs would not change for the other projects because EKPC will incur them whenever a new 138 kV line is added in the area.<sup>95</sup>

The EKPC 138 kV Fawkes – West Berea line in the project area running along the ROW of the current 69 kV line.<sup>96</sup> EKPC stated it was not possible to tap this line to provide support to the area with an adequate single-contingency redundancy.<sup>97</sup> In order to eliminate the voltage drop, EKPC would have to double circuit the 138 kV Fawkes – West Berea line just as it is proposing to do with the 69 kV line.<sup>98</sup> In order to double circuit the existing 138 kV Fawkes – West Berea line, EKPC would have to secure a new ROW..<sup>99</sup> The anticipated cost to obtain the additional ROW and double circuit the Fawkes – West Berea line would be approximately \$19.1 million, with the additional cost of the \$8.5 million rebuild of the 69 kV line.<sup>100</sup>

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<sup>92</sup> EKPC's Response to Staff's Third Request, Item 7.

<sup>93</sup> EKPC's Response to Staff's Third Request, Item 7.

<sup>94</sup> EKPC's Response to Staff's Third Request, Item 7.

<sup>95</sup> See EKPC's Post-Hearing Brief page 23 for a chart comparing the cost alternatives for the differing configurations of the 138 kV transmission line.

<sup>96</sup> Application, Exhibit 3 at 1–6.

<sup>97</sup> HVT at 11:27:10 and EKPC's Post-Hearing Brief at 14

<sup>98</sup> HVT at 11:28:30–11:29:44.

<sup>99</sup> HVT at 11:31:48.

<sup>100</sup> HVT at 11:30:01–11:31:02.

The Commission approves of the holistic planning approach EKPC has taken in this instance because building the 138 kV line and the additional projects during the rebuild of the 69 kV line utilizes economies of scale, minimizes disruption to the area, provides reliability for current customers, and provides the necessary support for the anticipated load growth. If EKPC does not build the 138 kV transmission line during the rebuild of the 69 kV transmission line, the opportunity to save the additional costs will not be present, and ultimately the ratepayers will bear this burden. Additionally, the incremental approach EKPC plans to employ, where it will wait to build certain components until final specifications are known with certainty, reduce any concern that capital will be employed wastefully. The Commission finds the 138 kV transmission line being built with the 69 kV rebuild is the least cost, and that the method proposed is most reasonable, resulting in no wasteful duplication of plant, equipment, or facilities involved with the proposed projects.

### Centerline

In the application, EKPC requested permission to move the centerline 100 feet in either direction.<sup>101</sup> During the proceedings, EKPC changed this request and indicated that no deviation from the current 69 kV ROW will be needed.<sup>102</sup> EKPC also stated that it would not utilize the ROW of the EKPC 138 kV Fawkes – West Berea line that runs directly adjacent to the current ROW in any way for this project.<sup>103</sup> EKPC then indicated it was requesting permission to move the centerline 20 feet on either side of the existing

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<sup>101</sup> Application at 18.

<sup>102</sup> HVT at 11:17:45 and HVT at 11:21:20 and EKPC's Post-Hearing Brief at 3, footnote 1

<sup>103</sup> EKPC's Response to Staff's Post-Hearing Request for Information, Item 6.

centerline from KU Fawkes substation to structure number BM069 to account for any unexpected conditions that may arise during the construction of the 138 kV transmission line.<sup>104</sup> EKPC also requested permission to move the centerline 30 feet on the western side of the centerline from structure number BM070 to the proposed site of the Madison County Switching Station.<sup>105</sup>

The Commission finds that EKPC's request to move the location of the proposed transmission line up to 30 feet from the centerline near structure number BM069 and structure number BM070 is appropriate so long as no new property owners are affected. Since EKPC has stated it will not be necessary to move the centerline of the transmission line, the Commission finds EKPC shall not move the centerline from the current ROW for the 69 kV line.

Because EKPC has shown it has a need for the proposed facilities and provided evidence that construction of the proposed facilities will not result in wasteful duplication, the Commission finds that EKPC shall be granted a CPCN for the project.

IT IS THEREFORE ORDERED that:

1. EKPC is granted a CPCN to construct, own, and operate the new 138 kV–69 kV double-circuit transmission line as well as the associated projects as described in its application, with the conditions expressed in this Order.

2. EKPC's request to move the centerline 30 feet from structure BM069 and BM070 is approved so long as no new property owners are affected.

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<sup>104</sup> EKPC's Post-Hearing Brief at 3.

<sup>105</sup> EKPC's Post-Hearing Brief at 3.

3. EKPC shall file a survey of the final location of the transmission facilities after any modifications are finalized as authorized by this Order and before construction begins.

4. EKPC shall notify the Commission upon knowledge of any material changes to the project, including but not limited to, increase in cost, any significant delays in construction, or any changes in the route of the transmission line not expressly authorized by his Order.

5. EKPC shall file as built drawings and maps within 60 days of the completion of the construction authorized by this Order.

6. 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 transmission line portion 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.

7. EKPC shall file with the Commission any permits acquired in connection with this project within 30 days of issuance of the permit.

8. EKPC shall apply for a CPCN for a modified route if another agency requires an alteration of the line that does not meet all of the conditions listed above.

9. EKPC shall take all commercially reasonable measures to prevent erosion and sedimentation damage in connection with this project.

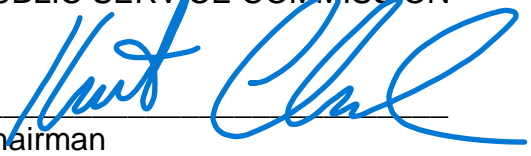
10. EKPC's request for authority to move the centerline and the ROW up to 100 feet in any direction of the centerline is denied.

11. Any documents filed in the future pursuant to ordering paragraphs 2, 3, 4, 5, and 6 shall reference this case number and shall be retained in the post-case correspondence file.

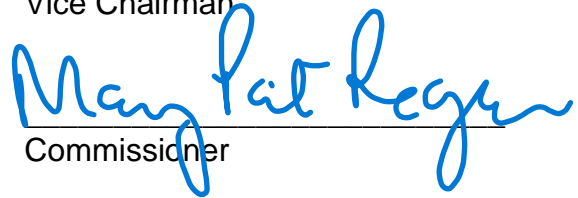
12. This case is closed and removed from the Commission's docket.

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PUBLIC SERVICE COMMISSION

  
Chairman

Vice Chairman

  
Commissioner

ENTERED  
FEB 23 2023  
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