

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)	
POWER COMPANY FOR A CERTIFICATE OF)	
PUBLIC CONVENIENCE AND NECESSITY TO)	CASE NO.
CONSTRUCT A 138 KV TRANSMISSION LINE)	2020-00062
AND ASSOCIATED FACILITIES IN PIKE AND)	
FLOYD COUNTIES, KENTUCKY)	

COMMISSION STAFF'S INITIAL REQUEST FOR INFORMATION
TO KENTUCKY POWER COMPANY

Kentucky Power Company (Kentucky Power), pursuant to 807 KAR 5:001, is to file with the Commission an electronic version of the following information. The information requested herein is due on October 26, 2020. The Commission directs Kentucky Power to the Commission's March 16, 2020 and March 24, 2020 Orders in Case No. 2020-00085¹ regarding filings with the Commission. The Commission expects the original documents to be filed with the Commission within 30 days of the lifting of the current state of emergency. All responses in paper medium shall be appropriately bound, tabbed, and indexed. Electronic documents shall be in portable document format (PDF), shall be searchable, and shall be appropriately bookmarked.

Each response shall include the name of the witness responsible for responding to the questions related to the information provided. Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or

¹ Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC Mar. 16, 2020), Order at 5–6. Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID-19* (Ky. PSC Mar. 24, 2020), Order at 1–3.

association or a governmental agency, be accompanied by a signed certification of the preparer or the person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Kentucky Power shall make timely amendment to any prior response if Kentucky Power obtains information that indicates the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which Kentucky Power fails or refuses to furnish all or part of the requested information, Kentucky Power shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations. When filing a paper containing personal information, Kentucky Power shall, in accordance with 807 KAR 5:001, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Refer to Kentucky Power's application, pages 4–5.
 - a. Explain whether the Kentucky Enterprise Industrial Park has any economic development related certifications, all necessary utility infrastructure, and all necessary environmental permits for a large industrial or commercial customer to begin construction or operation immediately. If not, explain what else would be required.

b. Explain whether Kentucky Power is aware of any industrial or commercial customer that would require a 138 kV line and substation whose locating at the Kentucky Enterprise Industrial Park is imminent or highly probable.

2. Refer to Kentucky Power's application, page 10, footnote 12, and page 13.

a. Explain and provide a breakout of the total detailed estimate of the project cost as if Kentucky Power was completing the project in its entirety. Include in the response breakout a distinction of which costs are allocated to Kentucky Power and which are allocated to AEP Kentucky Transmission Company, Inc. (Kentucky Transco). Also, include the estimated ongoing O&M costs for the various components for both companies.

b. Explain the rationale for the division in project elements between Kentucky Power and Kentucky Transco.

c. Explain how Kentucky Transco will recover the cost of the components of the proposed Kewanee Substation project that it will own.

d. Identify all transmission projects that have been constructed and implemented by Kentucky Transco, include in this identification the name of the transmission projects, the detailed components of each of those transmission projects, the date on which those transmission projects went into service, the purpose(s) of each of those transmission projects, and the total cost of each of those transmission projects.

3. Refer to Kentucky Power's application, page 11, paragraph 24, regarding the elimination of the referenced transformers and the standard left and right-hand rural distribution structures with three distribution feeder positions in each bay from the

proposed Kewanee 138 kV substation. Explain why these project components are no longer needed.

4. Refer to Kentucky Power's application, page 16, paragraph 36. If not previously filed, provide the status of the rights-of-way acquisition process.

5. Refer to Kentucky Power's application, pages 16 through 18, regarding the notices.

a. Provide a detailed discussion of any responses or comments to these notices received by Kentucky Power, include in this discussion any issues or objections raised, Kentucky Power's efforts to address any issues or objections, whether those objections or issues have been resolved, and copies of any correspondence related to those comments received by Kentucky Power.

b. Provide the status of Kentucky Power's efforts to locate the owner of parcel 9.

6. Refer to Kentucky Power's application, Exhibit 3.

a. There appears to be one or more structures underneath and in the right-of-way for the Cedar Creek – Elwood 46 kV line. Explain why Kentucky Power has allowed the encroachment of the right-of-way.

b. If the Fords Branch Substation did not need retirement and the equipment were in good repair, explain whether the five criteria violations would still exist.

7. Refer to Kentucky Power's application, Exhibits 1 through 6 and the Direct Testimony of Nicholas C. Koehler (Koehler Testimony), pages 2 through 4.

a. Neither the Cedar Creek – Fords Branch 36 kV line nor any of the existing distribution lines that will interconnect with the proposed Kewanee substation

appear on any map. Provide a map of suitable scale and detail that shows all of the elements of the proposed project, and all of the elements mentioned in the criteria violations. The map should also include (1) the higher voltage interconnection points of the 46 kV subtransmission system, and (2) all lines 12 kV and above that currently interconnect the present Kentucky Enterprise Industrial Park or will interconnect the proposed Kewanee substation, and the Cedar Creek – Elmwood 46 kV line.

b. State whether any 12 kV or higher lines that currently emanate from the Fords Branch substation have to be relocated or new lines need to be constructed to be fed from the Kewanee Substation. Identify those on the map provided in response to Item 7a.

8. Refer to Kentucky Power’s application, Exhibit 7, Siting Study.

a. Refer to page 17 of 110, Section 1.4, regarding the goal of the Siting Study. This section notes that the Proposed Route is one that (1) reasonably minimizes adverse impacts on residential areas and the natural and cultural environment; (2) minimizes special design requirements and unreasonable costs; and (3) permits the line to be constructed and operated in a timely, safe, and reliable manner. Explain whether these three aspects of the Proposed Route are weighed equally. If not, explain the weight that is assigned to each of the identified aspects of the Proposed Route and how the weights were determined.

b. Refer to page 20 of 110, Section 2.2. Identify each of the team members on the Siting Team along with each of their areas of expertise and relevant experience.

c. Refer to page 28 of 110, Section 2.5.3. Provide a copy of the 16 comment cards referenced in this section.

d. Refer to page 43 of 110, Section 4.1.1, Soil and Water Resources – Alternative Route Comparison. Explain why environmental surveys will be conducted prior to the beginning of construction activities and not earlier and state what impact, if any, will be caused if caves or portals are discovered within the corridor of either Alternative Route A or Alternative Route B.

e. Refer to page 45 of 110, Section 4.1.2, Wildlife Habitat and Sensitive Species – Resource Characteristics. Provide a copy of the AEP avian protection plan.

f. Refer to page 55 of 110, Section 5.1.1, Proposed Route – Proposed Route Modifications (2018). Regarding communications with affected landowners, state whether Kentucky Power has received any objections, concerns, or negative comments to the proposed transmission line route and, if so, state how Kentucky Power addressed those objections or concerns.

g. Refer to page 51 of 110, Section 4.3.1, Engineering Design Considerations – Alternative Comparison. The second sentence in this section states: “Additionally, Alternative Route **A** does not have any gas wells within the 100-foot ROW, while Alternative Route A has two.” (Emphasis added.) Confirm that there is a typographical error and that the second sentence of this section should have stated: “Additionally, Alternative Route **B**, does not have any gas wells within the 100-foot ROW, while Alterative Route A has two.” (Emphasis added.)

h. Confirm the Siting Study in Case No. 2018-00209,² as updated in August 2018, is the predecessor of Exhibit 7, Siting Study in this proceeding.

(1) State whether the alternate routes identified on page 19 of 110 are the same alternate routes identified in the Siting Study for Case No. 2018-00209.

(2) Refer to Map 8, entitled “Proposed Route to be Submitted to Kentucky PSC” found on page 81 of 110. Identify all modifications made to the proposed route compared to the proposed route in Case No. 2018-00209, and state why the modifications were made.

i. Refer to Attachment D, “GIS Data Sources” found on pages 87 through 90 of 110.

(1) Describe any differences identified in the number or location of road crossings by the proposed transmission line between the TIGER road file (2016 dataset) and the current Kentucky Roads database located at kygeonet.ky.gov.

(2) Only the GIS data sources for parcels and imagery have been revised for 2020. Identify any new features in the Kentucky Mine Mapping Information System (epccgis.ky.gov/minemapping/) for permits and wells in 2020 that are in the area of the proposed transmission line?

9. Refer to Kentucky Power’s application, Exhibit 14. Explain why this map is dated August 3, 2018, and why it is entitled “Kewanee-Enterprise Park, 138 kV Transmission Line Project, Exhibit 4: Alternative Routes.”

² Case No. 2018-00209, *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. 6, 2018).

10. Refer to Kentucky Power's application, pages 1 and 4, and the Koehler Testimony, pages 2 through 4. Criteria violation 1 appears to be two single contingency violations (1) the loss of the Cedar Creek 138/69/46 kV transformer or (2) the loss of the Cedar Creek – Fords Branch 46 kV line. Criteria violations 2, 3, and 4 appear to be double contingency violations, which involves the loss of the Cedar Creek 138/69/46 kV transformer and either the loss of a line or another transformer. Criteria violation 5 appears to be a double contingency violation that involves neither the loss of the Cedar Creek 138/69/46 kV transformer, the loss of the Cedar Creek – Fords Branch 46 kV line, nor the loss of the Fords Branch substation.

a. Explain how the replacement of an existing Cedar Creek relay panel and constructing a 138 kV line and substation that removes the distribution load served by the Fords Branch substation and the existing 46 kV system satisfies each of the five listed contingency violations.

b. Explain the differences in how North American Electric Reliability Corporation (NERC) recommends or requires the prioritization of network upgrades for single and double contingency criteria violations.

c. Explain whether there are any single contingency criteria violations that require the completion of this project.

11. Refer to the Koehler Testimony, pages 2 through 4 and page 5, lines 4 through 10.

a. Confirm that removal of the load served by the Fords Branch substation eliminates the need to mitigate five criteria violations.

b. Given the premise the Fords Branch substation load must be removed from the 46 kV system, explain whether the construction of the Kewanee substation was the only option explored as an alternate way of serving the load. If not, explain what other options were explored.

c. Once the project is completed and the four distribution circuits emanating from the Kewanee substation are removed from the 46 kV system, explain whether they will be served solely from the Kewanee substation. If not, explain how the four distribution circuits will be served.

12. Refer to the Koehler Testimony, page 10–11. Explain why low short circuit strength and coordinating multiple capacitor banks in a small area are problems.

13. Refer to the Koehler Testimony, pages 7 and 10 through 12.

a. Explain whether the cost of the two alternatives discussed represent the total estimated costs that would be borne by Kentucky Power ratepayers and are comparable to the \$35.2 million cost of the current project on a like-item to like-item comparison basis.

b. The stated \$35.2 million cost estimate is not the true cost to Kentucky Power's ratepayers because, presumably, they will also be paying for Kentucky Transco's project investment as well. Provide the total cost to Kentucky Power ratepayers inclusive of Kentucky Transco's investment and explain how Kentucky Power ratepayers will bear Kentucky Transco costs.

c. Explain whether it is accurate to say that (1) because of the Fords Branch Substation's age and location, it can't be effectively upgraded and should be retired, and (2) removing the load served by the Fords Branch Substation by whatever

means, from the 46 kV system alleviates the criteria violations. If not, explain what other work needs to be completed in order to alleviate the criteria violations.

14. Refer to the Koehler Testimony, page 12.

a. Identify and explain the additional supplemental needs existing on the Cedar Creek – Elwood 46 kV line that need to be addressed now or in the future.

b. Explain whether the Cedar Creek – Elwood 46 kV line will still need to be replaced if the project as proposed is approved and, if so, when.

c. Explain how the Cedar Creek – Elwood 46 kV line would be retired and the rest of the 46 kV system continue to be served without interruption of service.

d. Explain what cost elements are included in the estimated \$55 million cost to rebuild the Cedar Creek – Elwood 46 kV line.

15. Refer to the Koehler Testimony, Exhibit NCK-2 page 4 of 12. Explain the meaning of the percentages in parentheses with regard to voltage deviation issues experienced at various substations and what the recommended tolerances are.

16. Refer to the Koehler Testimony, Exhibit NCK-2 page 9 of 12. Under the heading, “Equipment Material/Condition/Performance/Risk,” the PJM report states, “In addition, breakers “A” & “B” have experienced 262 and 333 fault operations, exceeding the manufacture recommendation of 10.”

a. Explain why Kentucky Power allowed the breakers and other equipment to deteriorate to this point without replacement.

b. Provide a list of other substations and other relevant equipment throughout Kentucky Powers’ service territory with conditions that exceed manufacturers’ recommendations.

17. Refer to the Koehler Testimony, Exhibit NCK-2 pages 10-11 of 12 and Exhibit NCK-3, page 3 of 5.

a. The selected solution has an estimated transmission cost of \$28.2 million. Reconcile that cost with Kentucky Power's estimated \$35.2 million plus the cost that will be borne by Kentucky Transco.

b. Explain how the three scenarios (the selected solution and two alternatives) were conceived; i.e., does the software program itself conceive and evaluate different solutions independently or does the program operator specify parameters within which the program works.

18. Refer to the Koehler Testimony, Exhibit NCK-3, page 3 of 5. For each of the two criteria violations under "Reason for the additional scope."

a. Provide a map illustrating the criteria violation and explain how a 28.8MVar switching shunt at the new Fords Branch (Kewanee) substation will function to mitigate the criteria violations.

b. Explain what the recommended NERC tolerances are for voltage magnitude violations.

19. Refer to the Direct Testimony of Emily S. Larson (Larson Testimony), page 6. Confirm that one basic premise of the siting study was that the existing Fords Branch substation be retired and that a new substation be located in the Kentucky Enterprise Industrial Park.

20. Refer to the Larson Testimony, pages 9 and 10.

a. Provide further explanation as to the reasons why the Kentucky EPRI Methodology would not be suitable for siting the new 138 kV line.

b. Given the response provided to Item 20a., provide a comparison between the Kentucky EPRI Methodology and Kentucky Power's methodology showing how the latter overcomes the flaws in the former.

21. Refer to the Larson Testimony, page 18. Provide all written comments from the 2018 public open house held on May 3, 2018.

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DATED OCT 12 2020

cc: Parties of Record

Case No. 2020-00062

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