

Kentucky Power Company
KPSC Case No. 2025-00335
Commission Staff's First Set of Data Requests
Dated November 25, 2025

DATA REQUEST

KPSC 1_1 Refer to the Application, pages 2-3, paragraph 4. Identify the independent power producers (IPPs) connected to Kentucky Power's system, including:

- a. The voltage level each IPP is connected to Kentucky Power's system;
and
- b. The location of each IPP.

RESPONSE

a. and b. The IPPs connected to Baker substation are Riverside Generation and Foothills Generation, which are both owned by Dynegy located approximately 0.5 miles adjacent to the road north of Baker substation. The lines to these IPPs are operated at 345 kV.

Witness: Tyler M. Benedum

Witness: Douglas J. Eubank

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DATA REQUEST

KPSC 1_2 Refer to the Application, page 4, paragraph 11. Also refer to Exhibit 10, page 1.

- a. Describe in greater detail how a reactor functions to control voltage levels and fluctuations in current during varying system conditions.
- b. Explain why reactors need to be switched on or off to manage low or high voltage conditions or to allow for safe transfer/switching.

RESPONSE

a. Voltage level on a 765 kV line is influenced by the real and reactive power flow on the line. If the power flow on a 765 kV line is lower than its Surge Impedance Loading (SIL) value for the line, then reactive power is naturally created by the electrical characteristics of that line; SIL represents the flow level at which reactive power is either created or absorbed by the line itself. In other words, when a 765 kV line is lightly loaded, reactive power flow is higher on the line because the line creates reactive power, resulting in high voltages. Reactors are needed to help control voltages, especially on long 765 kV lines, by drawing the reactive power off the line and reducing the system voltage. When switched in on a line, reactors absorb excess reactive power, which lowers the voltage when system conditions show high voltage across the 765 kV system due to lightly loaded lines. Reactors need to be taken out of service when the 765 kV network is more heavily loaded. If reactors are left in-service during high load level periods (i.e. under higher transfers or heavy loading conditions), the reactors will lower the system voltages potentially resulting in low voltage violations, especially during peak load or high transfer times.

b. Depending on real-time system conditions, reactors may need to be switched in or out on a regular basis. Without reactor breakers, the 765 kV line needs to be switched out of service in order to switch the reactor in or out. In some scenarios the line cannot be switched out of service to switch the reactors as it could cause a cascading effect and make the scenario even worse. As described in Application Exhibit 10, during the Winter Storm Elliot event, the 765 kV lines could not be taken out of service to remove the reactors from the system as taking the lines out of service would create additional low voltage and voltage drop violations. Having reactor breakers installed will allow PJM and AEP Operations to control the status of the reactors without removing the 765 kV line from service. Please also refer to paragraphs 4 and 5 on page 1 of Application Exhibit 10

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for more details of the recent real time events where the implementation of reactor breakers could have been utilized to mitigate the real time operational constraints.

Witness: Jasmine L. Moore

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KPSC 1_3 Refer to the Application, page 5, paragraph 13.

- a. Explain if the TC Energy gas line is a transmission or distribution gas line.
- b. Explain the size of the gas line and the operating pressure.
- c. Confirm that Kentucky Power will be financially responsible for the physical removal of the pipe.
- d. Explain which party will be responsible for physically relocating the gas line.
- e. Explain whether the relocation of the gas line will impact the supply of natural gas to the Big Sandy Unit.

RESPONSE

- a. The pipeline is a transmission gas line.
- b. The pipeline is 10" in diameter. The Company does not know the operating pressure.
- c. The Company will be responsible for all costs to relocate the pipeline in connection with this Project.
- d. TC Energy will complete the physical relocation of the pipeline.
- e. The Company and TC Energy will coordinate the pipeline relocation with the Big Sandy Plant's outage schedule to mitigate any potential impacts associated with the pipeline relocation. The Company does not anticipate that the supply of natural gas to the Big Sandy Plant will be impacted in connection with the pipeline relocation.

Witness: Tanner S. Wolfram

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KPSC 1_4 Refer to the Application, page 6, which states “Kentucky Power’s allocation of total AEP East Zonal costs in [sic] roughly 5.62%, so the Company will be responsible for approximately \$1.35 million of the total costs” Refer also to the Application filed in Case No. 2024-00283, page 5, paragraph 16. Explain how the costs of the proposed project that Kentucky Power is responsible for remained constant at approximately \$1.35 million when the total cost of the project increased by approximately 25 percent and there were no changes to Kentucky Power’s allocation of total AEP East Zonal costs.

RESPONSE

Upon further review of the referenced information provided in the Application, which was supported by the Direct Testimony of Tanner S. Wolfram, the Company determined that the calculation provided was incorrect. The Company will file an errata to the Direct Testimony of Tanner S. Wolfram to provide the correct calculation. The Company’s 12 CP allocation is currently 5.429%. of the total AEP East Zonal costs. As such, the total cost of the Company will be responsible for will be approximately \$1.60 million.

Witness: Tanner S. Wolfram

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KPSC 1_5 Refer to the Application, page 7, paragraph 23, where Kentucky Power states that “The majority of the Project will be performed within Company-owned property.” Refer also to the Application, page 8, paragraph 25, where Kentucky Power states “. . . the Project will be performed entirely within Company property ”

a. Confirm that the entirety of the proposed project will be performed within Kentucky Power’s property. If not confirmed, explain how much of the proposed project will be performed outside of Kentucky Power-owned property.

b. If the entirety of the proposed project will not be performed within Kentucky Power’s property, explain what activities will be performed outside of Kentucky Power-owned property.

RESPONSE

a. and b. All station expansion and construction in connection with this Project will occur within Kentucky Power-owned property or public right-of-way, with the exception that TC Energy will still have a right-of-way for the gas line that passes through Kentucky Power property.

Witness: Tyler M. Benedum

Witness: Douglas J. Eubank

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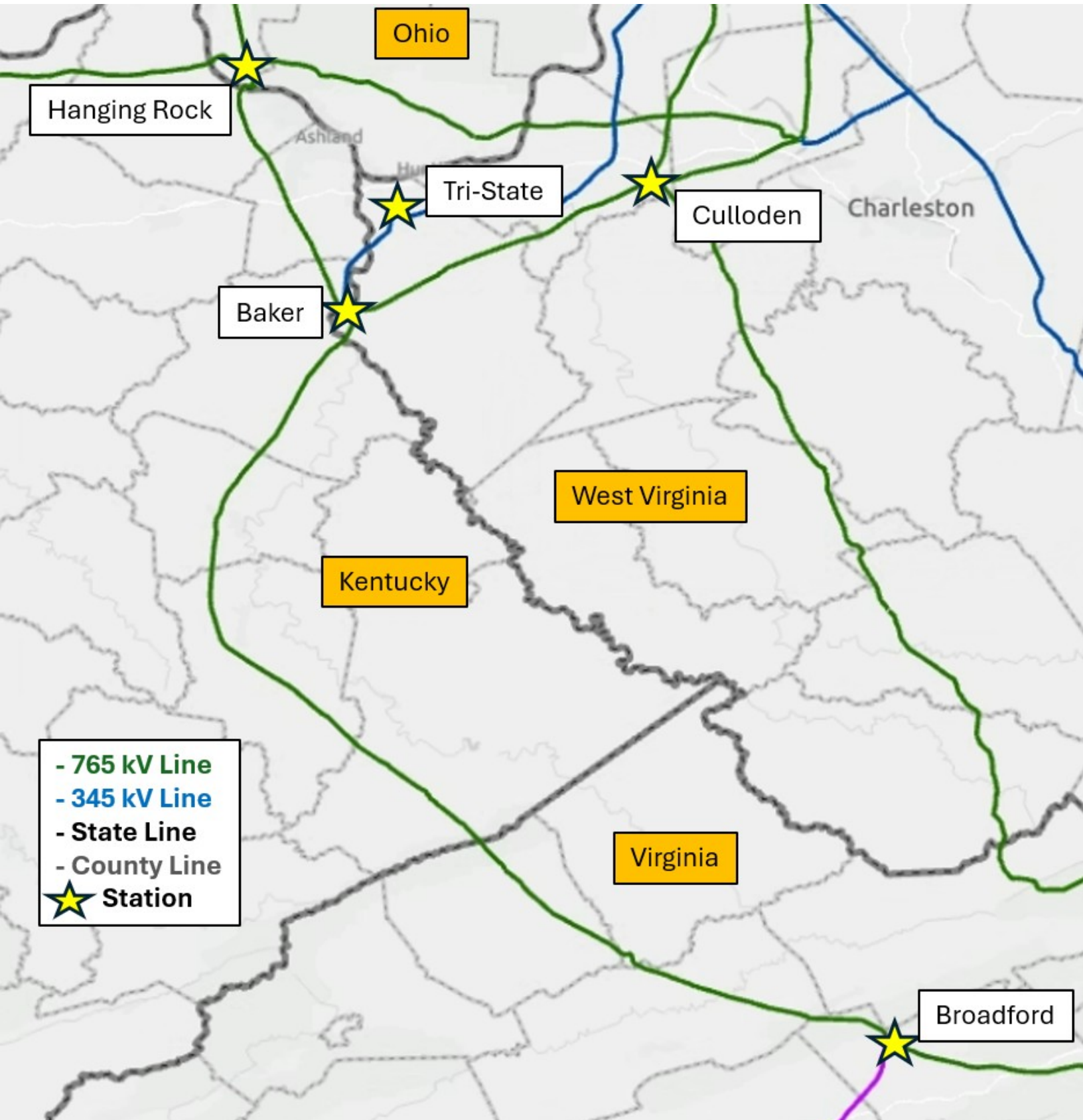
DATA REQUEST

KPSC 1_6 Refer to the Application, Exhibit 4. Provide an expanded view map showing and identifying all the Baker substation 345 kV and 765 kV transmission lines and the next substation interconnection points for each line.

RESPONSE

Please see KPCO_R_KPSC_1_6_Attachment1.

Witness: Jasmine L. Moore



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DATA REQUEST

KPSC 1_7 Refer to the Application Exhibit 5. Provide an expanded view of Exhibit 5 showing where the gas pipeline will be relocated.

RESPONSE

Application Exhibit 5 currently shows where the gas pipeline will be relocated at Exhibit 5, page 1. Please refer to the right side of the drawing, directly under the text "KENTUCKY POWER PROPERTY." Directly below that text, there is red text that reads "GAS LINE TO BE RELOCATED," with a red line and arrow pointing to the location of the existing gas line (in light gray or white). Directly below that text, there is additional red text, which reads "RELOCATED GAS LINE," with a red line and arrow pointing to where the gas line will be relocated (pointing to a red line that is perpendicular to the gray/white line indicating the location of the existing gas line).

Witness: Tyler Benedum

VERIFICATION

The undersigned, Tyler M. Benedum, being duly sworn, deposes and says he is a Transmission Station Engineer for American Electric Power Service Corporation, that he has personal knowledge of the matters set forth in the foregoing testimony and the information contained therein is true and correct to the best of his information, knowledge, and belief after reasonable inquiry.

Tyler M. Benedum

Tyler M. Benedum

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Subscribed and sworn to before me, a Notary Public in and before said County and State, by Tyler M. Benedum, on 12/09/2025.

Heather Harrison Foster

Notary Public

My Commission Expires May 31, 2027

Notary ID Number 78 26154



VERIFICATION

The undersigned, Jasmine L. Moore, being duly sworn, deposes and says she is a Transmission Planning Manager for American Electric Power Service Corporation, that she has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of her information, knowledge, and belief.

Jasmine L. Moore

Commonwealth of Kentucky)
)
County of Boyd) Case No. 2025-00335

Subscribed and sworn to before me, a Notary Public in and before said County
and State, by Jasmine L. Moore, on Dec 12, 2025.


Notary Public

My Commission Expires Mar 18, 2029

Notary ID Number 2019-RE-773938



KRISTEN A GROFF
Notary Public
State of Ohio
My Comm. Expires
March 18, 2029

VERIFICATION

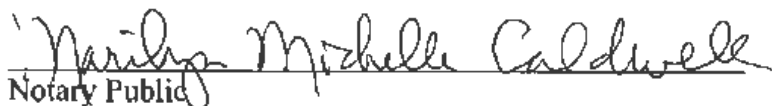
The undersigned, Tanner S. Wolfram, being duly sworn, deposes and says he is the Director of Regulatory Services for Kentucky Power, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.


Tanner S. Wolfram

Commonwealth of Kentucky)
County of Boyd)

Case No. 2025-00335

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Tanner S. Wolfram, on December 5, 2025.


Notary Public

My Commission Expires May 5, 2027

Notary ID Number KYNP71841

