

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 Construct 69kV Transmission Lines	)	Case No. 2026-00184
And Associated Transmission Grid Upgrades In Pike	)	
County, Kentucky (Breaks-Dorton Project)	)	

DIRECT TESTIMONY OF
EMILY HARTJE
ON BEHALF OF KENTUCKY POWER COMPANY

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<u>SECTION</u>	<u>TESTIMONY INDEX</u>	<u>PAGE</u>
I. INTRODUCTION		1
II. BACKGROUND.....		1
III. PURPOSE OF TESTIMONY		3
IV. THE SITING STUDY		3
V. RESULTS OF THE SITING STUDY		16
VI. PROPOSED ROUTE.....		16
VII. PERMITTING AND ENVIRONMENTAL STUDIES		19

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

2 A. My name is Emily Hartje. I am currently an Environmental Project Manager in the Earth
3 and Environment Division at WSP, Inc (WSP). My business address is 6530 W. Campus
4 Oval, New Albany, OH 43054. During the course of this project, I was employed by
5 POWER Engineers (POWER), which was a subsidiary of WSP USA, Inc. until December
6 31, 2025. POWER has since been fully integrated into WSP.

II. BACKGROUND

7 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
8 **BUSINESS EXPERIENCE.**

9 A. I hold a Bachelor's of Science in Landscape Architecture and Business, Integrated Studies,
10 from Arizona State University. Since 2005, I have specialized in transmission line routing,
11 siting, and permitting. Over the course of my career, I have been employed by WSP,
12 previously POWER, for a combined total of ten years. My experience includes
13 involvement in energy projects, where I have contributed to and managed siting and
14 routing, public outreach, and environmental permitting for both distribution and
15 transmission lines, as well as substation facilities.

16

1 **Q. PLEASE DETAIL FOR THE COMMISSION WSP'S EXPERIENCE IN**
2 **ANALYZING ALTERNATIVE ROUTING FOR ELECTRIC TRANSMISSION**
3 **LINES.**

4 A. WSP's Earth and Environment Division includes approximately 4,300 team members.
5 Approximately 250 have routing and siting experience depending on their technical
6 expertise (*e.g.*, biological, mapping and analysis, cultural resources, siting specialists). Of
7 the 250 Earth and Environment team members, WSP has approximately 45 Earth and
8 Environment project managers and 40 environmental planner/siting specialists that direct
9 and manage the project routing and siting process. Team members and technical experts
10 may vary depending on the project area and constraints. WSP has specialized in high- and
11 extra-high-voltage electric utility power delivery for nearly 50 years with offices across the
12 country.

13 **Q. HAVE YOU PREVIOUSLY BEEN INVOLVED IN ELECTRIC TRANSMISSION**
14 **LINE SITING STUDIES?**

15 A. Yes. I have contributed to over thirty routing and environmental impact analyses for
16 electric transmission line and substation projects. The projects range in size from 69kV to
17 500kV, in length from 1.0 mile to 800 miles, traversing various landscapes and within
18 congested urban areas.

19 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY TO THIS COMMISSION**
20 **ON BEHALF OF KENTUCKY POWER?**

21 A. No. I have not served as a testifying witness or provided formal testimony before this
22 commission or any other public service commission. My experience includes supporting

1 projects that required regulatory submissions to public utilities commissions, where I
2 contributed in a supporting role rather than as a project manager.

3 **Q. WERE THE EXHIBITS THAT YOU ARE SPONSORING PREPARED BY YOU**
4 **OR UNDER YOUR SUPERVISION AND DIRECTION?**

5 A. Yes.

III. PURPOSE OF TESTIMONY

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

7 A. I am testifying in support of Kentucky Power Company's ("Kentucky Power" or the
8 "Company") Application for a certificate of public convenience and necessity ("CPCN")
9 to construct the proposed Breaks-Dorton Transmission Line Rebuild Project (the
10 "Proposed Project") primarily located in Pike County, Kentucky (the "Application"). In
11 my testimony, I:

- 12 • Describe the methodology employed by the Company in conducting the
13 *Siting Study for Breaks–Dorton Transmission Line Rebuild Project* (the
14 "Siting Study," attached as **EXHIBIT 7**) for the Proposed Project that was
15 used in identifying and evaluating the alternative transmission line routes.
16
- 17 • Describe the results and conclusions of the Siting Study, as well as the basis
18 for the recommendation of the Proposed Route.
19
- 20 • Sponsor the Siting Study.

IV. THE SITING STUDY

21 **Q. PLEASE BRIEFLY DESCRIBE THE PROPOSED PROJECT AS IT RELATES TO**
22 **THE SITING EFFORTS.**

23 A. The Proposed Project will retire approximately 26 miles of existing 46kV transmission line
24 and a substation, upgrade approximately 18 miles of 46kV transmission line and associated
25 substations to 69kV standards, and build a new substation in Pike County, Kentucky. The

1 18 mile upgrade portion includes rebuilding the Henry Clay – Elkhorn City 46kV
2 transmission line between the Breaks Substation to the new Ratliff Substation and the
3 Henry Clay – Dorton 46kV transmission line between the Ratliff Substation, Henry Clay
4 Substation and the Dorton Substation.

5 **Q. PLEASE DESCRIBE WSP’S ROLE RELATED TO THE PROPOSED PROJECT.**

6 A. WSP was retained by Kentucky Power to develop and evaluate transmission line routes for
7 the Proposed Project. As the Project Manager, I oversaw and directed the WSP team and
8 worked closely with the Siting Team. My primary duties involved planning, organizing,
9 coordinating, and controlling activities related to: (a) evaluating and selecting the proposed
10 project components; (b) coordinating with the consultant retained to oversee the public
11 involvement process; (c) developing and evaluating Henry Clay and Ratliff Substation
12 sites, study segments, and alternative routes for the Proposed Project; (d) developing
13 routing, technical, and evaluation criteria with which to develop, compare, and analyze
14 alternative routes; (e) selecting a Proposed Route for the transmission line that reasonably
15 minimizes adverse impacts on the natural and human environments of the Project area, and
16 are consistent with Project routing and technical criteria; and (f) completing the Proposed
17 Project’s siting studies.

18 **Q. WHO WAS ON THE SITING TEAM?**

19 A. The Siting Team for the Proposed Project consists of a multi-disciplinary team, including
20 employees from Kentucky Power, WSP, and other consultants retained by or on behalf of
21 Kentucky Power, who supported the route development and public involvement process.
22 WSP was the siting and routing lead. Members of the Siting Team provided a wide range
23 of expertise and represented transmission line, substation, and distribution engineering;

siting; right-of-way (“ROW”); public outreach, environmental; outage planning; and construction management.

Q. PLEASE DESCRIBE THE PURPOSE OF THE SITING STUDY.

A. The primary purpose of the Siting Study is to identify routes for the proposed transmission line that will enable Kentucky Power to acquire the required ROW, engineer, construct, operate, and maintain the line, while minimizing overall environmental and land use impacts to the extent practical. The Siting Study discusses the definition of a study area which encompasses the substation endpoints, reviews the existing ROW condition, considers the environmental and land use constraints and opportunity features identified within the study area, documents the siting methodology and guidelines, documents public involvement, provides an evaluation of alternative routes, and aids in selection of a proposed route. The Siting Study is included in this application as **EXHIBIT 7.**

Q. WHY IS THE LINE NOT BEING REBUILT ENTIRELY WITHIN THE EXISTING ROW?

A. Portions of the proposed route will be rebuilt within existing ROW; however, the new Ratliff Substation provides opportunity to reduce the overall length of transmission line to be rebuilt by approximately two miles. The new Ratliff Substation will replace and will be located approximately two miles south of the existing Draffin Substation, which is to be retired. Company engineers determined that current National Electric Safety Code (“NESC”) standards would require larger and taller steel structures in tandem with AEP clearance requirements. Construction of the proposed steel transmission line structures in the rugged terrain poses a large risk to the feasibility of constructing and maintaining the transmission line. Additionally, in many areas the existing ROW generated significant

1 concerns relating to the slope stability for structure placement and access road construction.
2 Outage constraints were another factor impacting the length of transmission line that can
3 be rebuilt within existing ROW so that service interruptions during construction of the
4 existing line can be minimized.

5 **Q. HOW WAS THE PROPOSED ROUTE SELECTED?**

6 A. The Siting Team developed and evaluated study segments and alternative routes as part of
7 the Siting Study to select the Proposed Route. The methodology employed by the Siting
8 Team is described in detail in the Siting Study and Siting Study Addendums (EXHIBIT 7).

9 **Q. ARE YOU FAMILIAR WITH THE ELECTRIC POWER RESEARCH**
10 **INSTITUTE/GEORGIA TRANSMISSION CORPORATION'S ("EPRI")**
11 **"OVERHEAD ELECTRIC TRANSMISSION LINE SITING METHODOLOGY"?**

12 A. Yes.

13 **Q. ARE YOU FAMILIAR WITH THE RELATED "KENTUCKY TRANSMISSION**
14 **LINE SITING METHODOLOGY" ("KENTUCKY EPRI METHODOLOGY")?**

15 A. Yes.

16 **Q. PLEASE DESCRIBE THE KENTUCKY EPRI METHODOLOGY.**

17 A. The Kentucky EPRI methodology develops and ranks alternative routes by assigning
18 differing weights to different landscape resources or variables.¹ A Study Area comprised
19 of multiple different land uses/land covers can yield sufficient differentiation in the values
20 assigned to the alternatives to inform decision making; the larger the Study Area, the

¹ The Kentucky EPRI Methodology considers a number of variables related to the Proposed Project area landscape. These include parameters for land use, land cover, proposed development, presence and density of buildings, public lands, water and wetland resources, floodplains, cultural resources, wildlife habitat, infrastructure, and slope.

greater the possibility to consider a larger number of alternative routes based on differences in the land use or land cover across a large area.

Q. WAS THE KENTUCKY EPRI METHODOLOGY USED HERE?

A. No. While the Siting Team did not apply a numeric scoring or weighted framework such as EPRI, alternatives were evaluated using a consistent, interdisciplinary review process that considered environmental and land use impacts, engineering feasibility, cost, permitting considerations, and public input. This approach allowed the Siting Team to use a quantifiable, consensus-based decision-making process without subjective weighted scoring systems. The terrain within the study area is predominantly undeveloped and mountainous, which would not yield sufficient differentiation among land uses or the resulting transmission corridors under the Kentucky EPRI methodology to make its use probative. The uniformity of terrain type is further constrained by residential development concentrated along linear valley bottoms, which limits where a transmission line can reasonably be sited while adhering to favorable terrain that does not present constructability and maintenance risks related to potential landslides, unstable geology, and poor accessibility.

Q. WHAT METHODOLOGY WAS USED?

A. The Siting Team used a traditional and industry-accepted multi-step methodology employed by environmental consultants to identify optimal routes for new transmission lines, gas pipelines, and other linear utility corridors. The Siting Team defines the study area based on the project description, identifies constraints and opportunities, and develops study segments using established siting and technical criteria. The team gathers public and stakeholder input on the study segments, assembles the study segments into logical route

options, evaluates the route options based on the established siting and technical criteria, and selects a proposed route that best minimizes land use, reduces impact to natural and human environments, engineering and cost considerations and constructability impacts. Kentucky Power has used the same siting methodology used in this Application in nine previous transmission CPCN cases since at least 2007.

Q. WHAT COST CONSIDERATIONS FACTOR INTO ROUTE SELECTION?

A. Route selection considers cost factors that include the overall route length, number and type of structures, the amount of conductor, access road constructability, ROW acquisition, and potential geotechnical mitigation measures. For example, in this Proposed Project, the relocation of the Draffin Substation to the new Ratliff Substation site will reduce line mileage and structures required to rebuild the line, therefore reducing overall construction costs. Additionally, the cost of access roads to rebuild on centerline would be higher than the new Proposed Route.

Q. PLEASE OUTLINE THE GENERAL STEPS THE SITING METHODOLOGY IMPLEMENTED.

A. Kentucky Power's approved route development methodology consisted of the following steps:

- (1) Review project description, identify route endpoints and midpoints;
- (2) Establish routing and technical criteria (*e.g.*, maximize using or paralleling existing ROW and avoid heavy angles);
- (3) Study Area definition;
- (4) Data collection, stakeholder input, field reviews, and constraint and opportunity mapping;

- 1 (5) Development of Routing Concepts, which adhere to a series of general siting
2 and technical guidelines;
- 3 (6) Identification and development of a Study Segment Network, which includes
4 refinements and modifications based on public and stakeholder input;
- 5 (7) Assembly of route options;
- 6 (8) Evaluation and comparison of the route options;
- 7 (9) Identification of the Proposed Route; and
- 8 (10) Additional refinements, where practical, after announcing the Proposed
9 Route and contacting affected landowners.

10 **Q. PLEASE DESCRIBE IN MORE DETAIL THE SITING METHODOLOGY**
11 **UTILIZED BY THE SITING TEAM.**

12 A. The first step involved identifying route endpoints, existing Breaks and Dorton Substations
13 and midpoints at the expanded Henry Clay and new Ratliff Substations. After defining the
14 endpoints, the Siting Team defined a set of general and technical guidelines to help develop
15 study segments and route options, meet AEP design standards, comply with North
16 American Electric Reliability Corporation (NERC) reliability standards and NESC, and
17 apply industry best practices for construction. General siting guidelines for the Project
18 include, but are not limited to:

- 19 • Avoiding crossing or minimizing conflict with conservation areas and protected
20 lands;
- 21 • Avoiding or minimizing conflict with existing land uses and future
22 development;
- 23 • Considering paralleling property boundaries when feasible;

- Minimizing environmental impact and construction/maintenance costs by selecting shorter, direct routes; and
- Minimizing environmental impacts by considering routes that minimize overall length of access roads, length on steep slopes, and number of waterbody crossings.

Technical siting guidelines for the Project include, but are not limited to:

- Minimizing crossings of higher voltage transmission lines and the existing transmission line;
- Maintaining a minimum of 100 feet of centerline-to-centerline separation when paralleling 138kV or lower voltage transmission lines;
- Minimizing angles greater than 65 degrees;
- Minimizing structures on steep slopes, particularly if guy wires are required for construction; and
- Access road constructability and frequency.

Q. HOW DO COST CONSIDERATIONS FACTOR INTO THE GUIDELINES REPRESENTED ABOVE?

A. Cost considerations are one of several factors considered in applying the siting criteria. From a cost perspective, routing evaluates characteristics that influence overall project cost rather than the cost of any single component. For example, shorter and more direct routes reduce the number of specialized structure types and quantity of structures. As part of this evaluation, GIS-based analyses are used to help quantify route characteristics, such as overall route length, number of heavy angle structures, miles of steep slopes crossed by ROW, and number of existing transmission lines crossed. These GIS calculations provide

1 a consistent basis for comparing routing options. In addition, access road constructability,
2 use of existing access and the potential need for geotechnical mitigation are all general cost
3 factors considered alongside environmental, land use, and engineering constraints, to
4 identify a route that reasonably balances cost with other siting criteria. See Section 4 within
5 the Siting Study (EXHIBIT 7) for additional information on the route option comparison
6 and GIS based calculations.

7 **Q. WHAT WAS THE NEXT STEP IN THE SITING METHODOLOGY EMPLOYED**
8 **BY THE SITING TEAM?**

9 A. Once the routing and technical criteria are established, the Siting Team defines the Project
10 Study Area by the geographic area encompassing the Proposed Project's endpoints. The
11 Study Area was intended to include all practical conceptual routes between these endpoints.
12 This Study Area generally follows contour lines along an approximate one-mile buffer to
13 the north and east side of the existing centerline, Elkhorn Creek (Kentucky Route 197) to
14 the south, and Dorton Jenkins Highway (State Highway-805) to the west.

15 **Q. PLEASE DESCRIBE THE TOPOGRAPHY AND LAND USE FOUND IN THE**
16 **STUDY AREA.**

17 A. Generally, the Study Area is characterized by rugged mountainous terrain of forested areas
18 in the Appalachian Mountains of Kentucky with scattered residential and commercial
19 development along roads and in valleys, although more dense development exists in the
20 southeast of the Study Area in Elkhorn City.

21 **Q. BRIEFLY DESCRIBE YOUR DATA COLLECTION PROCESS AND**
22 **CONSTRAINTS MAPPING.**

23 A. A range of geographic information was acquired within the Study Area, as described in the

1 Siting Study and Siting Study Addendums (**EXHIBIT 7**). Data was compiled from:

- 2 • Available published sources, aerial photographs, United States Geological Survey
- 3 maps, and GIS data repositories, including data from local jurisdictions, the
- 4 Kentucky Division of Geographic Information and Kentucky Office of State
- 5 Archaeology;
- 6 • Coordination with federal, state, and local regulatory agencies;
- 7 • Environmental Justice data from EJSCREEN (2023) tool, developed by the
- 8 United States Environmental Protection Agency, and referenced data from the
- 9 United States Census Bureau-American Community Survey;
- 10 • Field reviews from public roads and other public access points; some private
- 11 access for field reviews were obtained at key locations and where landowners
- 12 invited the Siting Team;
- 13 • Light Detection and Ranging (“LiDAR”) imagery flown in 2023 to verify
- 14 locations of buildings and dwellings; and
- 15 • Input from the public through public open house meetings, the Proposed Project’s
- 16 website, and meetings with local landowners and stakeholders.

17 Constraint data for the Proposed Project was collected and compiled from the above
18 resources and utilized to aid siting decisions throughout the route development process.
19 See Section 2.3 and Attachments A, B, and C (Route Development Maps, Data Collection
20 Summary, and GIS Data Sources) within the Siting Study and Siting Study Addendums
21 (**EXHIBIT 7**) for additional information.

1 **Q. PLEASE DESCRIBE THE ROUTING CONCEPTS IDENTIFIED BY THE SITING**
2 **TEAM.**

3 A. After data collection and review of the constraints and opportunity data, the Siting Team
4 developed routing concepts between the identified Proposed Project's endpoints. Routing
5 concepts generally investigate multiple potential opportunities through diverse portions of
6 the Study Area such as utilizing the existing ROW or through undeveloped terrain
7 determined as feasible for construction, operation, and maintenance while avoiding
8 sensitive resources such as residences, new developments, and land use considerations,
9 such as mining operations.

10 **Q. PLEASE DESCRIBE THE STUDY SEGMENTS DEVELOPED FOR THE**
11 **PROJECT.**

12 A. The Siting Team developed a series of study segments based on the routing concepts and
13 defined general and technical guidelines that were revised, removed, or added as the siting
14 process evolved. Study segments developed between the Dorton and Breaks substations
15 generally avoid new impacts to clustered residential development, investigate re-use of
16 existing ROW, utilize spanning from ridgetop to ridgetop, and avoid landslide-prone areas.
17 A total of 41 study segments were developed between the Dorton and Breaks substations
18 that were presented to the public through an in-person open house and the project website.

19 **Q. WAS THE ENTIRE STUDY AREA AVAILABLE IN CREATING THE STUDY**
20 **SEGMENTS?**

21 A. No. While the entire Study Area was reviewed for potential study segment development,
22 portions of the Study Area were constrained by existing or planned residential and

commercial development, various hydrologic features, mountainous and steep terrain with landslide-prone areas which were not carried forward.

Q. WERE EXTERNAL STAKEHOLDERS CONSULTED DURING THE SITING PROCESS?

A. Yes. As part of the study segment development, Kentucky Power and the Siting Team mailed outreach letters to federal, state, and local agencies. Virtual meetings were held with local stakeholders, including representatives from Elkhorn Mining Company and ARC Kentucky Resources, to discuss the Proposed Project and gain feedback on the Study Segment network and receive information regarding previous, active, and future mining activities as they relate to the Proposed Project. See Section 3.7 within the Siting Study (EXHIBIT 7) for additional information on key stakeholder meetings held with the Siting Team.

Q. WAS ANY ADDITIONAL PUBLIC OUTREACH COMPLETED?

A. Yes. The Proposed Project was introduced to the public with a news release and mailings inviting landowners to an in-person public open house to learn about the Proposed Project and provide their feedback. Landowners within a 1,000-foot corridor (500 feet on either side of a study segment) were notified of the Proposed Project and in-person open house details. In addition to the in-person open house, a virtual open house was created on the Proposed Project's website which provided content related to engineering and design of structures, Proposed Project need, ROW, and construction. Both the in-person and virtual open houses allowed landowners and the public to submit comments to the Siting Team and identify specific properties through an address search tool.

1 Prior to the open house event with landowners, the Siting Team met with key
2 stakeholders for input on study segments. The Siting Team met with staff from Pike
3 County, the Hillbilly Trails system, and Elkhorn Mining Company. During these
4 discussions, no existing or future land use conflicts were identified.

5 At the in-person public open house, representatives of Kentucky Power and WSP
6 provided information on the Proposed Project and were available to answer questions and
7 collect comments. The public was also able to comment electronically and obtain
8 additional information through the Proposed Project's website after the public open house.
9 Aerial maps were provided during the in-person open house and available on the Proposed
10 Project's website. A total of 36 landowner comments were received through the Proposed
11 Project's website, by email, telephone, or comment card. Comments were entered into the
12 Proposed Project's database and generally related to existing easement rights and planned
13 land use development.

14 **Q. WERE STUDY SEGMENTS MODIFIED OR DISMISSED AS A RESULT OF**
15 **INITIAL STAKEHOLDER AND LANDOWNER INPUT FOLLOWING THE**
16 **JANUARY 2025 OPEN HOUSE?**

17 A. Yes. Study Segment 6, 7, and 8 were dismissed due to landowner comments indicating
18 future development plans and an associated private airstrip. Numerous other study
19 segments were dismissed after initial stakeholder and landowner input was collected;
20 however, these dismissals were not based on specific landowner comment as not all
21 segments received comments.

1 **Q. PLEASE DESCRIBE THE RESULTING ROUTE OPTIONS.**

2 A. After the Open House event, the Siting Team reviewed the Study Segment Network. Three
3 Focus Areas were developed, and the Study Segments were compiled into Route Options
4 within each of the Focus Areas, where further discussion and analysis was required to
5 identify an end-to-end Proposed Route. A total of 13 Route Options were identified and
6 described in the following sections and detailed in Section 3.0 and 4.0 of the Siting Study
7 (EXHIBIT 7).

V. RESULTS OF THE SITING STUDY

8 **Q. WHICH ROUTE WAS SELECTED AS THE PROPOSED ROUTE?**

9 A. Route Option D (Study Segment 39), E (Study Segments 39, 22, and 28), and B (Study
10 Segment 9) were selected within Focus Area 1, 2, and 3 respectively (Study Segment 39).
11 A detailed map showing the Initial Route is shown in Attachment H: Proposed Route in
12 the Siting Study (EXHIBIT 7). Cumulatively, the Proposed Route is comprised of Study
13 Segments between the Proposed Project's endpoints: 1, 2, 3, 5, 40, 36, 8A, 9, 11, 13E, 12,
14 41, 22, 28, 39, and 35.

VI. PROPOSED ROUTE

15 **Q. HAS THE PROPOSED ROUTE BEEN MODIFIED SINCE IT WAS PUBLICLY**
16 **ANNOUNCED?**

17 A. Yes. During detailed access road design, a minor route adjustment was identified to
18 address constructability constraints near Structure 15. The adjustment shifts a portion of
19 the Proposed Route approximately 1,500 feet to the east, immediately south of the
20 Proposed Ratliff Substation, and includes the adjustment of structures 14A, 15A and 16A.
21 See Section 6.0 for details and a map showing the Proposed Route Adjustment in the Siting

1 Study (**EXHIBIT 7**). This adjustment affects four landowners previously-crossed by the
2 Proposed Route and one additional landowner. All affected landowners were previously
3 engaged and aware of the Proposed Project.

4 **Q. PLEASE DESCRIBE THE PATH OF THE PROPOSED 69kV TRANSMISSION**
5 **LINE.**

6 A. The Proposed Route exits the existing Breaks Substation within new ROW for
7 approximately .025 miles then rejoins the existing ROW where crossing Kentucky Route
8 3174/US-460E replacing existing structures K381-63A and K381-62A. The Proposed
9 Route turns in a more western way across KY-80 and the Russell Fork waterway. The
10 Proposed Route continues towards the proposed Ratliff Substation site. At an ideal
11 location on the southern side of the substation site, double-circuit design will be utilized
12 for crossing the Russell Fork connection to the proposed Ratliff Substation site. Leaving
13 Ratliff Substation, the Proposed Route turns slightly south as it heads in a generally
14 easterly direction crossing over Kentucky Route 3174 and tracks towards the existing Big
15 Sandy – Broadford 765kV Line. The Proposed Route crosses underneath the existing extra
16 high voltage transmission line then makes a slight turn more southward for suitable terrain.
17 At a location, generally parallel to Marrowbone Creek Road, double-circuit design will
18 again be utilized for connection into the expanded Henry Clay Substation. The double-
19 circuit section will turn north and then west crossing Marrowbone Creek Road into the
20 Substation. The single-circuit portion of the line turns south following generally parallel
21 to Marrowbone Creek and an existing Kentucky West Virginia Gas pipeline for
22 approximately 1.5 miles also crossing over Marrowbone Creek Road. The Proposed Route
23 turns due west, crossing Allegheny Road, rejoining with existing ROW for approximately

1 1.5 miles at existing structure K379-9. Where the existing line turns north, the Proposed
2 Route will maintain a western trajectory, although shifting slightly southward towards the
3 existing Dorton Substation. The Proposed Route approaches the existing Clinch River –
4 Beaver Creek 138kV Transmission Line near to its structure K113-118, which will be
5 raised to accommodate a new crossing of the Proposed Route underneath. The Proposed
6 Route then turns north and rejoins existing ROW at existing structure K379-35 and will
7 rebuild along centerline into Dorton Substation, crossing Dorton Jenkins Highway.

8 **Q. WHY IS THE REBUILD NOT BEING BUILT ON EXISTING CENTERLINE?**

9 A. The Proposed Route is located in largely new ROW which reduces overall line mileage.
10 Draffin Substation is being replaced by the greenfield Ratliff Substation and therefore
11 requires a different route. Ratliff Substation is more strategically located to reduce total
12 line mileage while maintaining service reliability, as well as being closer to existing
13 transmission sources and distribution system. The Proposed Route is a more efficient
14 connection between substations and therefore less costly option compared to rebuilding on
15 existing centerline. The Proposed Route reduces outage duration and facilitates efficient
16 construction sequencing. For more discussion on the route selection process please see
17 **EXHIBIT 7.**

18 **Q. WHAT IS THE FILING CORRIDOR THAT THE COMPANY IS REQUESTING?**

19 A. Kentucky Power is seeking approval to build the transmission line generally within a 200-
20 foot-wide corridor (100 feet on either side of centerline) to allow for design flexibility in
21 determining the final centerline which will be based on ground surveys, environmental
22 studies, additional landowner input, and final engineering. While the Company is
23 requesting a 200-foot-wide corridor, it is not expected that the centerline will shift

1 significantly from what is shown on **EXHIBIT 4** (Proposed Route). The standard 100-foot
2 ROW and 200-foot corridor are further depicted in **EXHIBIT 4** (Proposed Route).

3 **Q. ARE THERE AREAS THAT MIGHT UTILIZE MORE THAN THE STANDARD**
4 **100-FOOT ROW?**

5 A. Yes. As shown in **EXHIBIT 4** (Proposed Route), some areas will require wider than 100-
6 foot ROW due to conductor sway. In those areas where a wider ROW is required, the
7 Company is requesting a wider corridor. See Company Witness McAllister's testimony
8 for specific spans that are anticipated to exceed the standard 100-foot ROW.

9 **Q. HAVE LANDOWNERS THAT MAY BE AFFECTED BY MOVEMENT OF THE**
10 **CENTERLINE BEEN NOTIFIED OF THE POSSIBILITY THAT THE**
11 **CENTERLINE AND ASSOCIATED ROW COULD SHIFT UP TO 100 FEET OR**
12 **MORE FROM CENTERLINE WITHIN THE SELECTED LOCATION?**

13 A. Yes. Proposed Route notifications were sent on April 16, 2025. An additional 14
14 landowners were notified on June 5, 2025. Additionally, the Company is currently
15 contacting landowners to conduct ROW acquisition discussions.

16 **Q. WILL THE ROW FOR THESE RETIRED ASSETS BE RETAINED?**

17 A. Several sections will need to be retained due to other uses for that ROW section, and other
18 portions may be retired if the land cannot be otherwise utilized.

VII. PERMITTING AND ENVIRONMENTAL STUDIES

19 **Q. WHAT ENVIRONMENTAL PERMITTING OR STUDIES ARE ANTICIPATED**
20 **FOR THIS PROJECT?**

21 A. The Company anticipates that the following environmental studies, permits, or approvals
22 may be required for the construction of the Project:

1 A wetland delineation and stream identification analysis was conducted for the
2 Project. It is anticipated that any impact to jurisdictional resources will qualify under the
3 United States Army Corps of Engineers (USACE) Nationwide Permit (NWP) 57 Pre-
4 Construction Notification for the construction of structures, access roads, and right-of-way.
5 As a part of NWP 57 permitting, the Company will coordinate with USACE regarding the
6 potential impacts on sensitive species and cultural resources. A river crossing analysis will
7 be completed for the installation of a transmission line over Russell Fork, a Section 10
8 navigable water, at two separate crossings. For any transmission line structures located
9 within the floodplain, the Company will require coordination with the local floodplain
10 manager and a Kentucky Division of Water (KDOW) Stream Construction Permit and/or
11 an Individual Section 401 Water Quality Certification.

12 Because the total earth disturbance will be greater than one acre, the Company will
13 be required to obtain coverage under the General Permit for Stormwater Discharges
14 Associated with Construction Activities from the Kentucky Energy and Environment
15 Cabinet, Division of Water. As part of the compliance with the construction stormwater
16 general permit, the Company will develop a Stormwater Pollution Prevention Plan
17 (SWPPP) for the Project.

18 The Company will coordinate with the U.S. Fish and Wildlife Service (USFWS)
19 regarding the potential for impacts to sensitive species. Based on an initial review of the
20 USFWS Information for Planning and Consultation system, four species of bats potentially
21 occur in the Study Area. Mist net and portal searches were conducted for bat species and
22 the Company will continue to coordinate with the USFWS and the Kentucky Department
23 of Fish and Wildlife Resources (KDFWR). Kentucky Power will request guidance from

1 the USFWS regarding avoiding or minimizing impacts to the other listed species. A Phase
2 I cultural resources survey will be conducted and coordinated with the Kentucky Heritage
3 Council and the Kentucky Office of State Archaeology to comply with Section 106 of the
4 National Historic Preservation Act.

5 In addition to the environmental permits, engineering-related permits will be filed
6 with the appropriate agencies or companies once the transmission line design is completed.
7 It is anticipated that these may include aerial road crossing permits from the Kentucky
8 Transportation Cabinet (KYTC), Federal Highway Administration, or county engineering
9 offices; and construction entrance permits for state or county roads. The Company will
10 also coordinate with the Federal Aviation Administration and KYTC as necessary
11 regarding aviation-related approvals.

12 **Q. HAVE ANY OF THE ENVIRONMENTAL PERMITS OR STUDIES BEEN**
13 **COMPLETED FOR THE PROJECT?**

14 A. The Company completed bat studies – mist netting, with no captures and harp netting –
15 with no captures; conducted both archeological and architectural studies – with no
16 significant findings; and a Waters of the United States evaluation was also conducted for
17 wetlands and streams. The Company is awaiting concurrence from their respective
18 agencies.

19 The Breaks – Dorton transmission line will require a permit from the United States
20 Army Corps of Engineers (“Corps”) under Section 10 of the Rivers and Harbors Act. The
21 Company will also seek coverage from the Corps under Nationwide Permit 57. In addition,
22 the Company will seek coverage from the Kentucky Division of Water under the General

1 Permit for Stormwater Discharges Associated with Construction Activities (KPDES
2 Permit KYR100000) and obtain a floodplain permit for the crossing to Ratliff Substation.

3 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

4 **A. Yes.**

VERIFICATION

The undersigned, Emily Hartje, being duly sworn, deposes and says she is an Environmental Project Manager for WSP, Incorporated, that she 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 her information, knowledge, and belief after reasonable inquiry.

Signed by:


A6707D7E7AF442F

Emily Hartje

Commonwealth of Kentucky)
)
County of Boyd)

Case No. 2026-00184

Subscribed and sworn to before me, a Notary Public in and before said County
and State, by Emily Hartje, on 8/24/2026 | 3:35 PM EDT.

Signed by:


E9B1BC7AC31F421...

Notary Public

MARILYN MICHELLE CALDWELL
ONLINE NOTARY PUBLIC
COMMONWEALTH OF KENTUCKY
Commission #KYNP71841
My Commission Expires 5/5/2027

My Commission Expires 05/05/2027

Notary ID Number KYNP71841