COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application Of Kentucky Power Company For A Certificate Of Public Convenience And Necessity To Construct 46kV Transmission Line In Floyd and Johnson Counties, Kentucky ("Prestonsburg–Thelma Transmission Line Rebuild Project")	))))))	Case No. 2025-00346

APPLICATION

Kentucky Power Company ("Kentucky Power" or the "Company") applies to the Public Service Commission of Kentucky ("Commission") pursuant to KRS 278.020(1), 807 KAR 5:001, Section 14, 807 KAR 5:001, Section 15, and all other applicable statutes and regulations, for an order granting a certificate of public convenience and necessity ("CPCN") authorizing Kentucky Power to retire the entire 16 miles of the 46kV Prestonsburg–Thelma circuit, build approximately 13 miles of new 46kV[1] Prestonsburg–Thelma circuit on mostly new right-of-way, replace the 138/69/46kV transformer at the Thelma Substation, and perform related station work at the Kenwood Substation (the "Prestonsburg-Thelma Project" or the "Project"). The Project is located in Floyd and Johnson counties.

Kentucky Power's compliance with the requirements of KRS 278.020, 807 KAR 5:001, Section 14 and 807 KAR 5:001, Section 15 is detailed in **EXHIBIT 1** to the Application

The Company states as follows in support of its Application:

[1] The proposed line will be designed to 69kV standards and operated at 46kV.

APPLICANT

1. **Name and Address**: The Applicant's full name and post office address is: Kentucky Power Company, 1645 Winchester Avenue, Ashland, Kentucky 41101. The Company's electronic mail address is kentucky_regulatory_services@aep.com.

4. **Incorporation**: Kentucky Power is a corporation organized on July 21, 1919 under the laws of the Commonwealth of Kentucky. The Company currently is in good standing in Kentucky.[2]

2. **Business**: Kentucky Power is a public utility principally engaged in the provision of electricity to Kentucky consumers. The Company generates and purchases electricity that it distributes and sells at retail to approximately 162,000 customers located in all, or portions of, the Counties of Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike, and Rowan.

THE PROPOSED PRESTONSBURG–THELMA TRANSMISSION LINE REBUILD PROJECT

Background and Existing Facilities

5. Kentucky Power's existing Prestonsburg–Thelma 46kV circuit transmission lines were originally installed in the 1960s. The current transmission line totals approximately 16 miles in length comprised of 5.8 miles between Thelma Substation and Van Lear Switch (Structure K346-63A), 1.8 miles between Van Lear Switch and Kenwood Substation, and 8.5 miles between Van Lear Switch on the Prestonsburg–Thelma 46kV line to the Prestonsburg Substation. The existing structure types comprise of single and double-circuit wood poles and weathering steel poles.

[2] A certified copy of the Company's Articles of Incorporation and all amendments thereto was attached to the Joint Application in *In the Matter Of: The Joint Application Of Kentucky Power Company, American Electric Power Company, Inc. And Central And South West Corporation Regarding A Proposed Merger*, P.S.C. Case No. 99-149. The Company's December 4, 2025 Certificate of Existence is filed as **EXHIBIT 2** to the Application.

6. Currently, the Prestonsburg–Thelma 46kV circuit serves the Kenwood Substation, and provides approximately 17.2 MVA of load to 2438 customers.

The Proposed Project

7. The Project addresses baseline violations, outage issues, and open structural conditions identified as part of the PJM Regional Transmission Expansion Plan ("RTEP") process. The baseline solution includes:

- Replacing Thelma Transformer #1 with a 138/69/46kV 130/90 MVA transformer and replacing 46kV risers and relaying towards Kenwood Substation. The existing Transformer #1 is to be used as a spare transformer;
- Rebuilding approximately 13 miles of the Prestonsburg–Thelma 46kV circuit. The proposed line will be designed to 69kV standards and operated at 46kV;
- Retiring Van Lear Switch, Jenny Wiley Switch, and Van Lear to Kenwood transmission line;
- Installing motor-operated air-breaker ("MOAB") switches at the Company's existing Kenwood Substation; and
- Relocating the existing 46kV capacitor bank within the station and installing a high side circuit switcher on the distribution bank at the Prestonsburg Station.

8. A detailed map of the transmission line route proposed in this Application ("Proposed Route") is included as **EXHIBIT 4** to this Application. The Proposed Route begins at the existing Prestonsburg Substation, travels west to cross the existing centerline, then turns north to cross KY-1428. Then, the transmission line continues north and northeast through undeveloped forested terrain before crossing KY-3 and proceeds northwest and northeast to cross Fords Gap Road, Ward Avenue, the Levisa Fork, and KY-321. From there, the transmission line turns north and west to cross Johns Creek Road, the Levisa Fork, and KY-321 again before entering the existing Kenwood Substation. Exiting Kenwood, the route heads west across forested land, then turns north to cross the Levisa Fork and KY-321. It continues north through undeveloped terrain, turns northeast to cross KY-302, then angles northwest and northeast to cross KY-40. Finally, the

route parallels the existing East Kentucky Power Cooperative transmission line through forested land, turns northwest and north to cross Main Street, and terminates at the existing Thelma Substation.

9. The proposed transmission line will be constructed primarily on new greenfield routes, from Kenwood to Prestonsburg, and from Kenwood to Thelma. The new line will be comprised of primarily galvanized pre-engineered steel pole structures, steel lattice towers, and custom galvanized steel monopoles. The detailed specifications of the proposed structures are included as **EXHIBIT 5**.

10. Kentucky Power will construct and own all of the components of the proposed Project in accordance with the Commission's Order in Case No. 2020-00174.[3] The Company anticipates beginning construction during the second quarter of 2026. Work is anticipated to be completed by end of the fourth quarter of 2028.

Need For The Project

11. The Project is necessary to provide adequate, reliable, and safe service to Kentucky Power Customers, and addresses baseline violations identified as part of the PJM RTEP process near the Prestonsburg 46kV Substation. The PJM Baseline Project Slides are included as **EXHIBIT 10**.

12. Company Witness Jasmine L. Moore describes in detail the electrical need for the Project. Specifically, in the 2021 PJM window on 2026 Regional Transmission Expansion Plan (RTEP) case, voltage magnitude and voltage drop violations were identified at Mckinney, Salsbury, Allen, East Prestonsburg, Prestonsburg, Middle Creek, and Kenwood Substations in the

[3] *See* Order, *In the Matter of: Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) Approval Of Tariffs And Riders; (3) Approval Of Accounting Practices To Establish Regulatory Assets And Liabilities; (4) Approval Of A Certificate Of Public Convenience And Necessity; And (5) All Other Required Approvals And Relief,* Case No. 2020-00174 at pp. 63-64 (Ky. P.S.C. January 13, 2021).

event of multiple different N-1-1 contingency pairs. Further, in the same PJM window, thermal violations were identified at Thelma Substation.

13. Prior to the baseline violations being identified, asset health concerns had previously been raised for the Prestonsburg–Thelma 46kV line and the Van Lear Switch, which serves Kenwood. The 16-mile Prestonsburg–Thelma circuit, built in the 1960s, includes the radial Van Lear–Kenwood line and has shown signs of aging and poor performance.

14. From 2013 through 2018, the Prestonsburg–Thelma 46kV circuit experienced 22 momentary and permanent outages. The circuit has 34 category A open conditions associated with structures that make up the line. The conditions include damaged and rotted poles, damaged guy wires, and damaged cross arms. The majority of the circuit utilizes 1960s wood structures and 336.4 ACSR conductor.

15. Moreover, between July 2019 and June 2024, the Prestonsburg–Thelma 46kV circuit experienced 13 momentary and two permanent outages, causing over 716,000 customer minutes of interruption at Kenwood. As of September 2024, 84% of the line's structures have at least one open structural issue. The switches at Van Lear have been tagged as inoperable and unsafe to operate, with damaged components and mechanisms that no longer function properly. The old hydraulic-type mechanism on these switches do not operate properly, arcing horns are burnt off, and operating rods supports are damaged.

16. On the Kenwood–Van Lear 46kV circuit line, three of the 11 structures have conditions that comprise 27% of the line section. Open conditions include rot and woodpecker damage.

17. The Project replaces the existing transmission transformer at Thelma Substation with a larger unit to solve the thermal violations identified by PJM. Further, the Project rebuilds

the existing Prestonsburg–Thelma line with new structures and conductor. The construction of the new line, which will have lower impedance than the existing line, solves the voltage violations in the area. Rebuilding the Prestonsburg–Thelma line also addresses the identified equipment condition, performance, and risk needs that were identified by PJM.

PJM Review

18. The Project was reviewed at the PJM Sub-Regional RTEP-Western meetings held on November 29, 2018 and April 20, 2020. The baseline portion of the Project was reviewed on October 15, 2021 at the PJM Sub-Regional RTEP-Western meeting. The baseline and supplemental portions of the Project were respectively assigned identification B3360 and B3361.

19. On May 16, 2025, the baseline solution B3361 was re-presented by PJM with revised costs and a new transmission line route.

20. The Project consists of two baseline scopes to address the baseline violations identified by PJM and described throughout this Application. Information and documentation regarding the baseline violations addressed by the Project is further detailed in the testimony of Company Witness Moore and Exhibit 10.

Estimated Project Cost

21. The total detailed estimate of the Project cost is approximately $71.2 million. That sum comprises: (a) approximately $61.6 million for transmission line work including ROW acquisition; (b) approximately $7.8 million for construction and upgrade of the substations and switch structure; (c) approximately $0.5 million for station removals; and (d) approximately $1.3 million for transmission line removals. Kentucky Power estimates the annual operating cost will be approximately $20,500 for general maintenance and inspection. The projected additional annual ad valorem taxes resulting from the Project are expected to total approximately $953,000.

22. The costs of the Project will be allocated to the AEP East PJM zone. Based on its current 12 CP allocation, Kentucky Power's share will be 5.429%. The remainder of the costs will be recovered from other load serving entities.

23. Kentucky Power anticipates funding the Project through its operating cash flow and other internally generated funds. The Project will not materially affect the financial condition of the Company.

The Siting Study

24. POWER Engineers, Inc. ("POWER") was retained by Kentucky Power to identify and evaluate transmission line routes for the Project, and to prepare the Siting Study for the Project. In doing so, POWER worked closely with Kentucky Power employees and other consultants retained by, or on behalf of, Kentucky Power to support the route development and public involvement process. The Siting Study for the Prestonsburg-Thelma Project is attached as **EXHIBIT 7** to this Application.

25. The primary purpose of the Siting Study is to identify routes for the proposed transmission line that enable Kentucky Power to acquire the necessary ROW, engineer, construct, operate, and maintain the line, while minimizing environmental and land-use impacts. The Siting Study defines the Project's study area between substation endpoints, evaluates existing ROW conditions, analyzes environmental and land-use constraints and opportunity features identified within the study area, documents the siting methodology and guidelines, documents public involvement, compares alternative routes, and supports selection of the Proposed Route.

26. As a result of landowner input, Study Segments 3, 4, and 15 were dismissed. Additionally, Segments 3 and 15 presented terrain and structure placement challenges. With these

segments removed, no viable alternatives remained for Segments 1, 2, and 5; therefore, these segments were incorporated into the Project's Initial Route.

27. Two focus areas were identified for the remaining study segments. Focus Area 1 encompasses the area between Study Segment 3 and the existing Kenwood Substation and includes two alternatives: Comparison A (Study Segments 7 and 8) and Comparison B (Study Segments 6 and 9). Focus Area 2 encompasses the area between Study Segment 11 and the existing Thelma Substation, and includes Comparison A (Study Segments 13 and 16) and Comparison B (Study Segments 12 and 14). These alternative routes are detailed in Section 5.0 of the Siting Study (**EXHIBIT 7)** and is shown on the Alternative Route Map (**EXHIBIT 15)**.

28. Comparison B was selected as the initial route in both Focus Area 1 and Focus Area 2. A detailed map showing the Initial Route is shown on Map 5 in **Attachment E** to the Siting Study (**EXHIBIT 7)**.

29. Due to the Company previously rescheduling the Project, the Initial Route has since been modified after it was first publicly announced in May 2023. When the Project resumed in June 2024, additional siting and public involvement activities were conducted due to the one-year rescheduling of the Project and new landowner feedback. The Initial Route was modified to include a new study segment, forming the Western Alternative Route (Section 8.0 of the Siting Study).

30. Environmental surveys completed in April 2025 for the Western Alternative Route identified new cultural resources within the proposed ROW (Section 9.0). To avoid these cultural resources, the Siting Team developed four additional alternative routes (Options 1, 2, 3, and 4). Ultimately, Option 4 was selected as the Proposed Route.

31. The Proposed Route was selected through a systematic evaluation of study segments and alternative routes conducted by the Siting Team as part of the Siting Study. The Siting Team determined that the Proposed Route will minimize land-use impacts and engineering risks by relocating further away from congested development and residences, will impact fewer landowners, crosses more favorable terrain, avoids landslide-prone areas with unstable geology, and reduces visual impacts to the surrounding community. Within the area north of Kenwood Substation, the Proposed Route further minimizes impacts by shifting away from residences, utilizing existing roads, reducing the line length, and reducing tree clearing required within the ROW.

32. A detailed qualitative and quantitative analysis supporting this selection is provided in Section 9.0 of the Siting Study (**EXHIBIT 7**). A detailed map of the Proposed Route is included as **EXHIBIT 4** to this Application.

Project Alternatives

33. During the planning process, the Company developed a holistic electrical alternative to the proposed Project that provides similar benefits, which is further described as Alternative 1 in **EXHIBIT 13**.

34. Alternative 1 would require installing a new 4-mile 46kV line from Morgan Fork Substation to Mckinney Substation; installing a new 138/69/46kV transformer with circuit breaker protection At Morgan Fork Substation; installing a new 5.5 mile long double-circuit 138kV line from Dewey Substation to Kenwood Substation; converting Kenwood Substation to 138kV and installing a new distribution bank; expanding Dewey Station and installing 2 new 138kV circuit breakers; and retiring the existing Prestonsburg–Thelma 46kV circuit.

35. Under Alternative 1, Kenwood Substation would be served from a single source, with the circuits on shared towers, which is less reliable than two independent feeds. This configuration would also require non-standard protection schemes to protect the 17.2 MVA of load due to the single source from Dewey Substation. The alternative solution would require expanding the existing Dewey Substation, which may not be feasible given the terrain surrounding the substation.

36. The total estimated cost for Alternative 1 is approximately $77 million, which is more than the proposed Project.

The Proposed Construction Is Required By The Public Convenience And Necessity

37. The Project is required by the public convenience and necessity.

38. The Project will not produce wasteful duplication as it is the least-cost, most reasonable alternative and has the most favorable cost-benefit ratio over the long term. Additionally, it will not result in an excess of capacity over need, and does not represent an excess of investment in relation to the productivity and efficiencies to be gained.

39. The Project addresses voltage magnitude and voltage drop violations identified Mckinney, Salsbury, Allen, East Prestonsburg, Prestonsburg, Middle Creek, and Kenwood Substations.

40. The proposed Project is the most cost-effective solution that meets all identified system needs. The Project upgrades and replaces existing infrastructure where practicable, rather than adding new facilities, minimizing siting and environmental challenges. The proposed Project also provides distribution customers at Kenwood Substation with looped transmission service from both Prestonsburg and Thelma Substations. The alternative solution studied by Kentucky Power

provides only incomplete solutions, or fails to provide the full benefits, compared to the proposed Project.

41. The Project will allow the Company to build approximately 13 miles of 46kV transmission lines between Prestonsburg Substation and Thelma Substation via the Kenwood Substation, utilizing new and shorter ROW. The existing structure types to be removed are single and double-circuit wood poles and weathering steel poles.

42. There are no like electric utility facilities in the area, and the Project is located entirely within Kentucky Power's certified territory and will not compete with any public utilities, corporations, or persons.

Real Property And Right-Of-Way

43. Kentucky Power will need to acquire new property in connection with the work to be performed to complete the Project.

44. Kentucky Power will build approximately 13 miles of new 46kV Prestonsburg–Thelma circuit on mostly new right-of-way ("ROW"). Approximately 0.5 mile of the proposed 46kV Transmission Line will be constructed within or near the existing ROW.

45. Kentucky Power proposes to maintain the proposed 46kV Transmission Line ROW at 100 feet wide (50 feet on either side of the line), except where a wider ROW is required to address constructability and operational requirements.

46. Constructability issues, access requirements, and conditions that are not evident until final engineering, or that arise as a result of landowner negotiations, may result in Kentucky Power being required to place the identified centerline and adjacent ROW outside the ROW indicated on Exhibit 4.

47. Consistent with the guidance provided by the Commission's April 13, 2022 Order in Case No. 2021-00346, its September 22, 2022 Order in Case No. 2022-00118, and its October 6, 2023 Order in Case No. 2023-00040, the Company seeks authority to relocate the centerline and associated ROW up to 100 feet in any direction (or 200 feet total) from the location as shown on the maps filed with the Application if required to address these conditions or issues.

48. The Company proposes to file a motion in this proceeding to request approval, if needed, to move the centerline more than 100 feet in any direction from the centerline, or more than the additional clearances requested for the specific spans identified above, as it appears on the maps filed into the record in this proceeding. The motion will identify the proposed new location of the centerline, the affected landowner(s), and state in detail, and with technical specificity, the need for the proposed modification of the centerline. Kentucky Power will serve the motion for approval to move the centerline on any affected landowner(s), even if not a party to this proceeding. The Company respectfully requests that upon receiving adequate information to consider the request, the Commission use its best efforts to rule upon such motions within 14 days.

49. This procedure is consistent with the Commission's previous approvals in Case Nos. 2021-00346 (Garrett Area Improvements 138 kV Transmission Project), 2022-00118 (Wooton-Stinnett 161 kV Transmission Rebuild Project), and 2023-00040 (Belfry Area Transmission Line Project).

50. In addition to the procedure described above, the Company also seeks authority as part of this Application to relocate the centerline and associated facilities beyond the 100-foot-wide area requested above for certain discreet spans the Company has so far been able to identify,

which are shown on Exhibit 4 and described in greater detail in Company Witness Woody's Direct Testimony.

51. Upon completion of the Project, Kentucky Power will file an as-built plan showing the final location of the transmission line and structures with the Commission.

Commencement And Completion Of Work

52. The Company anticipates beginning construction on the Project during the second quarter of 2026, depending on the outcome and timing of this proceeding. Work is anticipated to be completed by the end of the fourth quarter of 2028. The planned in-service date sequence is as follows:

- 2nd Quarter 2026: Anticipated start of construction;
- 1st Quarter 2028: Project placed in-service;
- 4th Quarter 2028: Construction Complete.

Notices

53. The Prestonsburg–Thelma Transmission Line Rebuild Project is not the type of transmission project subject to the provisions of 807 KAR 5:120. However, Kentucky Power nonetheless mailed notice of the Project in a form substantially similar to that required by 807 KAR 5:120, Section 2(3).

54. Kentucky Power, by a first-class mailing made on November 17, 2025, provided notice in a form substantially similar to that otherwise required by 807 KAR 5:120, Section 2(3) to all property owners, as identified by the records of the property valuation administrator of Floyd and Johnson Counties, whose property lies within, intersects with, or is adjacent to, the Proposed Route and filing corridor of the Project (the "Affected Landowners"). The full details of the Company's efforts to engage all landowners within or adjacent to Proposed Route for the Project

is further described in Company Witness Santos's testimony as well as the Siting Study found in **EXHIBIT 7**.

55. The November 17, 2025 Notice to the Affected Landowners included the following information:

a. Notice of the proposed construction;

b. The docket number (P.S.C. Case No. 2025-00346) under which the Application will be processed and a map showing the Proposed Route of the transmission line;

c. The address and telephone number of the Executive Director of the Commission;

d. A description of the property owners' rights to request a public hearing and the right to request intervention; and

e. A description of proposed 69kV transmission line, proposed station work, and corresponding maps indicating their locations.

56. A sample copy of the November 17, 2025 Notice, including all enclosures mailed to the Affected Landowners, is attached hereto as part of **EXHIBIT 8**. The list of the Affected Landowners to whom the Notice was mailed, including their addresses as indicated by the records of the property valuation administrator of Floyd and Johnson Counties, is attached hereto as **EXHIBIT 8**.

Franchises And Permits

57. Kentucky Power anticipates that the following environmental studies, permits, or approvals might be required for the construction of the Project: (1) a wetland delineation and stream identification study; (2) a Section 10 Permit from the United States Army Corps of Engineers which will be required for four transmission line crossings over the Levisa Fork; (3) a Construction Permit from the Kentucky Division of Water Stream for construction activities that take pace in, along, or over a wetland or stream (if the watershed is one square mile or more in size) or within a floodplain; (4) a Construction Stormwater General Permit from the Kentucky

Energy and Environment and Cabinet, Division of Water; and a Kentucky Pollutant Discharge Elimination System (KPDES) Stormwater Pollution Prevention Plan (SWPPP) will be developed for the Project.

58. The Company will coordinate with the U.S. Fish and Wildlife Service (USFWS) regarding the potential for impacts to sensitive species.

59. In addition to environmental permits, engineering-related permits will be obtained once transmission line design is finalized. These may include aerial road crossing permits from the Kentucky Transportation Cabinet (KYTC), Federal Highway Administration (FHWA), or county engineering offices, as well as construction entrance permits for state or county roads. The Company will also coordinate with the Federal Aviation Administration (FAA) and KYTC for any required aviation-related approvals.

60. No environmental permits or studies have been completed to date.

61. Kentucky Power will obtain all required environmental compliance permits and complete the required studies prior to beginning Project construction. A summary of the environmental surveys and permitting anticipated to be required is provided in Company Witness Santos' testimony.

62. Following receipt of the requested authority, and completion of final design and ROW acquisition, but prior to the beginning of construction, Kentucky Power will update or supplement the listing in Company Witness Santos' testimony of required environmental surveys or permitting, as necessary.

Exhibits And Testimony

63. The exhibits and testimony are listed in the Appendix to this Application, and are attached to and made a part of this Application.

Communications

64. Kentucky Power respectfully requests that communications in this matter be addressed to the e-mail addresses identified on Kentucky Power's October 13, 2025 Notice of Election of Use of Electronic Filing Procedures.

WHEREFORE, Kentucky Power Company respectfully requests that the Commission issue an Order:

(1) Granting Kentucky Power a Certificate of Public Convenience and Necessity for the Project authorizing Kentucky Power to:

(a) Replace Thelma Transformer #1 with a 138/69/46kV 130/90 MVA transformer and replace 46kV risers and relaying towards Kenwood Substation;

(b) Rebuild approximately 13 miles of the Prestonsburg–Thelma 46kV circuit, which will be designed to 69kV and operated at 46kV;

(c) Retire Van Lear Switch, Jenny Wiley Switch, and Van Lear to Kenwood transmission line;

(d) Install motor-operated air-breaker ("MOAB") switches at the Company's existing Kenwood Substation; and

(e) Relocate the existing 46kV capacitor bank within the station and install a high side circuit switcher on the distribution bank; and

(2) Granting Kentucky Power such other relief as may be appropriate.

Respectfully submitted,

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EXHIBITS

EXHIBIT 1	Filing Requirements Checklist
EXHIBIT 2	Kentucky Power Company's December 4, 2025 Certificate of Existence
EXHIBIT 3	[Reserved]
EXHIBIT 4	Map of Suitable Scale Illustrating the Proposed Project
EXHIBIT 5	Plans and Specifications and Drawings of the Proposed Project Signed by an Engineer Licensed in Kentucky
EXHIBIT 6	List of the major components of the proposed Project and their purpose
EXHIBIT 7	Project Siting Study
EXHIBIT 8	November 17, 2025 Notice and List of Affected Landowners
EXHIBIT 9	[Reserved]
EXHIBIT 10	Baseline Project PJM Slides
EXHIBIT 11	[Reserved]
EXHIBIT 12	Results of the desktop geotechnical hazard assessment for the Project and its area
EXHIBIT 13	Comparison of Proposed Project with Alternative
EXHIBIT 14	[Reserved]
EXHIBIT 15	Map of Alternative Routes

EXHIBIT 1

Application Filing Requirements Checklist

Requirement	Description of Requirement	Location(s) in Filing
General Application Requirements		
807 KAR 5:001		
Section 7(1)	The application and 10 copies.	Company is e-filing.
Section 4(3)	Paper signed by submitting party or attorney.	Application at p. 17.
Section 4(3)	Name, address, telephone number, fax number, and e-mail address of submitting party or attorney.	Application at p. 17.
Section 4(10)	Personal information must be redacted.	Complied.
Section 8(2)(a)	At least seven (7) days prior to the submission of its application, an applicant shall file written notice of its election to use electronic filing procedures using the Notice of Election of Use of Electronic Filing Procedures form.	Complied. Filed October 16, 2025.
Section 8(4)(b)	E-filed documents must be .pdf files that: • are searchable and optimized for internet viewing; • have bookmarks distinguishing sections; • if scanned material, be at resolution of 300 DPI	Complied.
Section 8(5)(a)	Each electronic submission shall include an introductory file in portable document format that is named "Read1st" and that contains a general description of the filing.	Complied.
Section 8(5)(a)	Each electronic submission shall include an introductory file in portable document format that is named "Read1st" and that contains a list of all material to be filed in paper or physical medium but not included in the electronic submission, and a statement that the material in the electronic submission are a true representation of the materials in paper medium.	Complied.

Section 8(5)(b)	The "Read1st" file and any other material that normally contains a signature shall contain a signature in the electronically submitted document.	Complied.
Section 14(1)	Full name, mailing address, and e-mail address of applicant.	Application at ¶ 1.
Section 14(1)	Facts on which application is based, with request for the order, authorization, permission, or certificate desired.	Application, introductory paragraph, *passim*; Direct Testimony of Tanner S. Wolffram; Direct Testimony of Jasmine L. Moore; Direct Testimony of Anastacia Santos; Direct Testimony of J. Scott Woody.
Section 14(1)	A reference to the particular law requiring Commission approval.	Application at introductory paragraph.
Section 14(2)	If a corporation, the applicant shall identify in the application the state in which it is incorporated and the date of its incorporation, attest that it is currently in good standing in the state in which it is incorporated, and if it is not a Kentucky corporation, state if it is authorized to transact business in Kentucky.	Application at ¶ 2; Application Exhibit 2.
Section 14(3)	If a limited liability company, the applicant shall identify in the application the state in which it is organized and the date on which it was organized, attest that it is in good standing in the state in which it is organized, and, if it is not a Kentucky limited liability company, state if it is authorized to transact business in Kentucky.	N/A
Section 14(4)	If the applicant is a limited partnership, a certified copy of its limited partnership agreement and all amendments, if any, shall be annexed to the application, or a written statement attesting that its partnership agreement and all amendments have been filed with the commission in a prior proceeding and referencing the case number of the prior proceeding.	N/A

Applications for Certificates of Public Necessity		
Section 15(2)(a)	The facts relied upon to show that the proposed construction or extension is or will be required by public convenience or necessity.	Application at introductory paragraph, *passim*; Application Exhibits 7, 10, 13, 15; Direct Testimony of Tanner S. Wolffram; Direct Testimony of Jasmine L. Moore; Direct Testimony of Anastacia Santos; Direct Testimony of J. Scott Woody.
Section 15(2)(b)	Copies of franchise or permits, if any, from the proper public authority for the proposed construction or extension, if not previously filed with the Commission.	N/A
Section 15(2)(c)	A full description of the proposed location, route, or routes of the proposed construction or extension, including a description of the manner of the construction and the names of all public utilities, corporations, or persons with whom the proposed construction or extension is likely to compete.	Application at ¶¶ 6, 7, 8, 9, 19, 41, 42, 43, 44, 45, 46, 49, 53 10, 12, 22; Application Exhibits 4, 7; Direct Testimony of Tanner S. Wolffram; Direct Testimony of Jasmine L. Moore; Direct Testimony of Anastacia Santos; Direct Testimony of J. Scott Woody.
Section 15(2)(d)(1)	One (1) copy in portable document format on electronic storage medium and two (2) copies in paper medium of: maps to suitable scale showing the location or route of the proposed construction or extension as well as the location to scale of like facilities owned by others located anywhere within the map area with adequate identification as to the ownership of the other facilities.	Application Exhibit 4.

Section 15(2)(d)(2)	One (1) copy in portable document format on electronic storage medium and two (2) copies in paper medium of: plans and specifications and drawings of the proposed plant, equipment, and facilities.	Application Exhibits 5, 6.
Section 15(2)(e)	The manner in detail in which the applicant proposes to finance the proposed construction or extension.	Application at ¶¶ 20, 21, 22; Wolffram Direct Testimony at pp. 10-12.
Section 15(2)(f)	An estimated annual cost of operation after the proposed facilities are placed into service.	Application at ¶ 20; Wolffram Direct Testimony at p. 12.

EXHIBIT 2

Commonwealth of Kentucky
Michael G. Adams, Secretary of State

Michael G. Adams
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
http://www.sos.ky.gov

Certificate of Existence

Authentication number: 352381
Visit https://web.sos.ky.gov/ftshow/certvalidate.aspx to authenticate this certificate.

I, Michael G. Adams, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

KENTUCKY POWER COMPANY

KENTUCKY POWER COMPANY is a corporation duly incorporated and existing under KRS Chapter 14A and KRS Chapter 271B, whose date of incorporation is July 21, 1919 and whose period of duration is perpetual.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that Articles of Dissolution have not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 4th day of December, 2025, in the 234th year of the Commonwealth.

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
352381/0028317

EXHIBIT 3

This Exhibit is a placeholder and is not required for this Application.

EXHIBIT 4

Expanded ROW (270') and filing corridor (370') due to conductor sway

Expanded ROW (230') and filing corridor (330') due to conductor sway

Expanded ROW (170') and filing corridor (270') due to conductor sway

Expanded ROW (250') and filing corridor (350') due to conductor sway

Expanded ROW (120') and filing corridor (220') due to conductor sway

Expanded ROW (110') and filing corridor (210') due to conductor sway

Expanded ROW (130') and filing corridor (230') due to conductor sway

1493-12
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1493-14
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1493-26
1493-27

Paintsville - Thelma 46 kV Line

East Prestonsburg - Prestonsburg 46 kV Line

Prestonsburg Substation

- Proposed Structure
- Existing AEP Structure
- Existing AEP Structure to be Removed
- Existing AEP Substation
- Proposed Route [1]
- Existing AEP Transmission Line
- Existing Transmission Line to be Removed
- Non-AEP Transmission Line
- Highway
- Local Road
- Proposed 100-foot ROW [2]
- Proposed 200-foot Filing Corridor [2]
- Property Line Boundary with AEP Landowner ID [3]
- Map Tile

1) Transmission line route is preliminary and subject to change. Final line route and structure locations will be determined during final engineering, which includes ground surveys and geotechnical and environmental studies.

2) A typical 100-foot-wide right-of-way will generally be sited within an approximately 200-foot-wide corridor. The Company needs the flexibility to shift the centerline no more than 100 feet in either direction from the centerline as necessary after completion of final engineering, ground surveys, and additional discussions with landowners. In 23 locations, the filing corridor is expanded to no more than 380 feet due to conductor sway.

3) The PVA parcels are not based on an accurate ground survey and should not be construed or used as exact descriptions of legal boundaries.

KENTUCKY POWER™
An AEP Company

Sheet 1 of 6

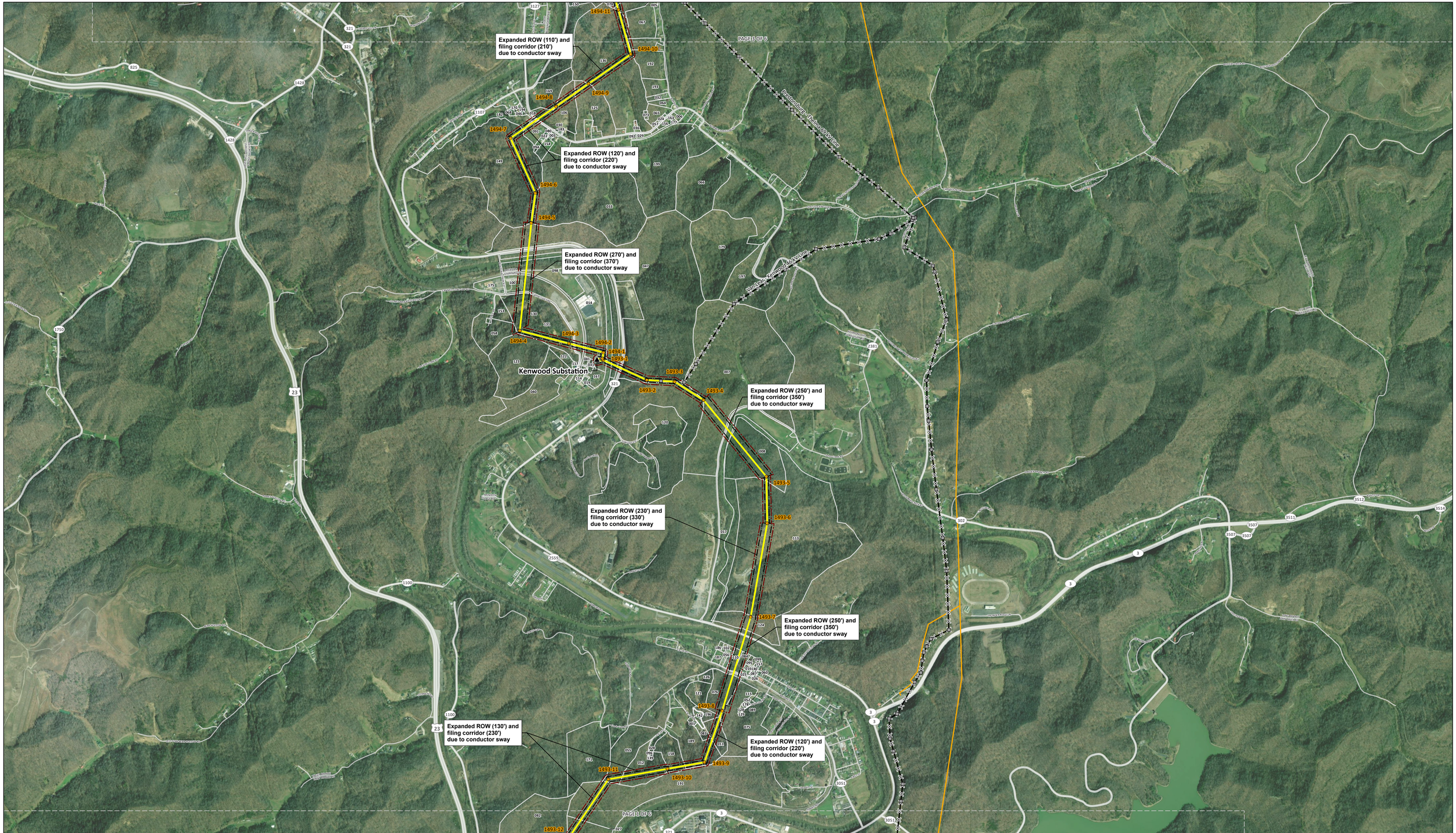
Johnson and Floyd Counties, Kentucky

1 inch = 1,000 feet
when printed at 24x36
0 1,000 2,000 3,000
Feet

November 04, 2025

Exhibit 4: Proposed Route

Prestonsburg - Thelma Transmission Line Rebuild Project



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- Existing AEP Transmission Line
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KENTUCKY POWER™
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Sheet 2 of 6

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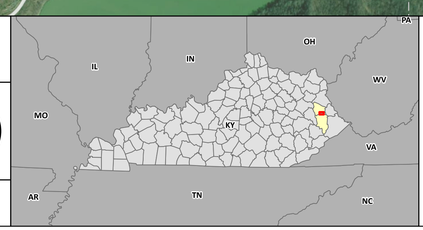
0 1,000 2,000 3,000
Feet

November 04, 2025



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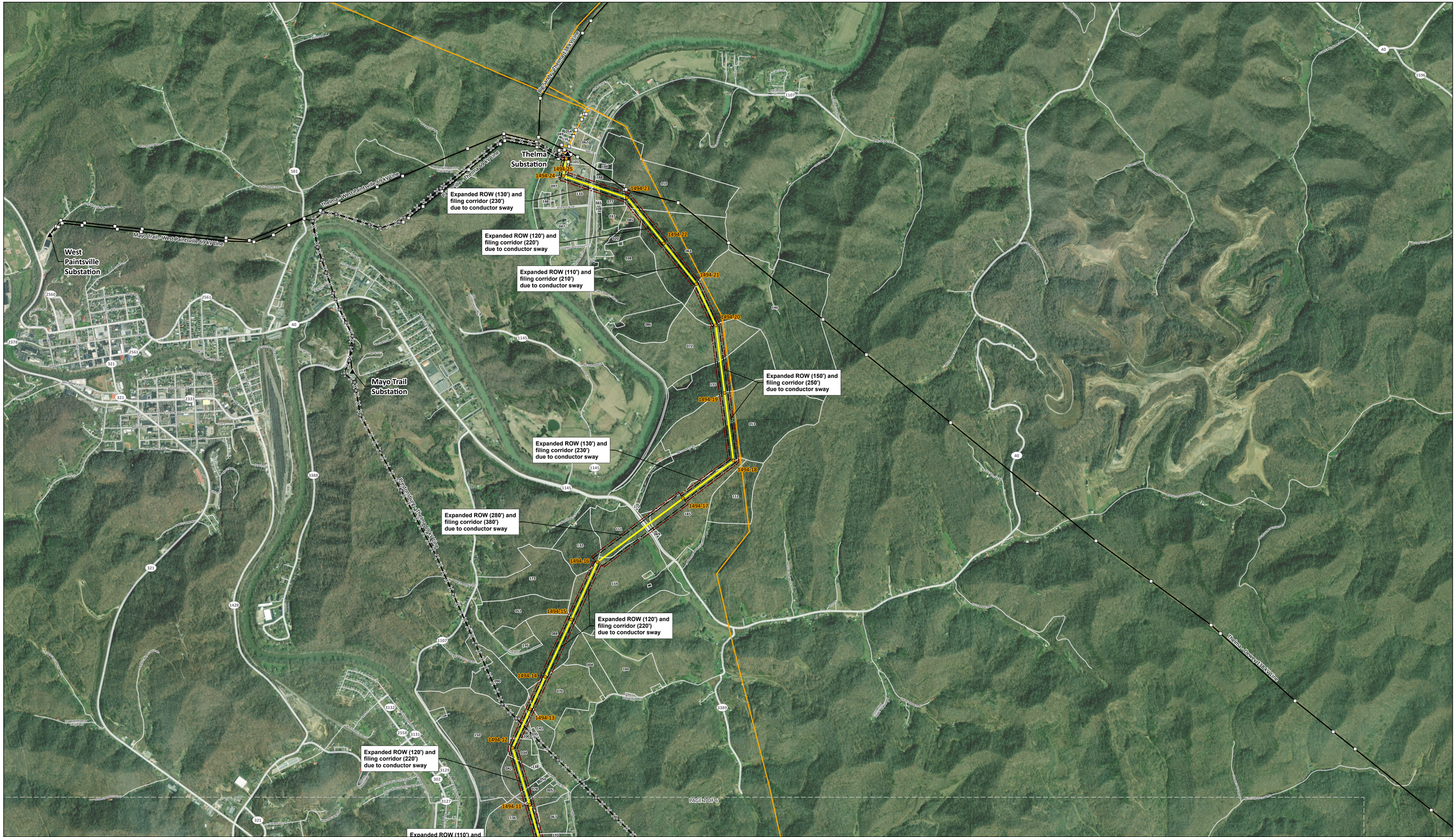

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- Existing AEP Transmission Line
- Existing Transmission Line to be Removed
- Non-AEP Transmission Line
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- Local Road
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KENTUCKY POWER™
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Sheet 3 of 6

Johnson and Floyd Counties, Kentucky

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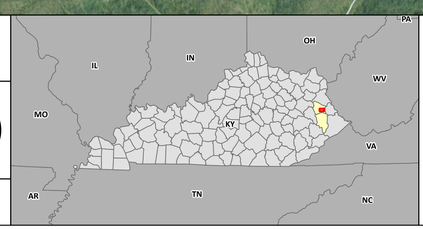
0 1,000 2,000 3,000
Feet

November 04, 2025



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Prestonsburg - Thelma Transmission Line Rebuild Project

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1493-25
1493-26
1493-29

Prestonsburg Substation

East Prestonsburg - Prestonsburg 46 kV Line

- Proposed Structure
- Existing AEP Structure
- Existing AEP Structure to be Removed
- Existing AEP Substation
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Feet

November 04, 2025

Exhibit 4: Proposed Route

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Expanded ROW (130') and filing corridor (230') due to conductor sway

Kenwood Substation

Prestonsburg - Thelma 69 kV Line

Van Lear - Kenwood 46 kV Line

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KENTUCKY POWER™
An AEP Company

Sheet 5 of 6

Johnson and Floyd Counties, Kentucky

1 inch = 1,000 feet
when printed at 24x36

0 1,000 2,000 3,000
Feet

November 04, 2025

Exhibit 4: Proposed Route

Prestonsburg - Thelma Transmission Line Rebuild Project

Thelma Substation

West Paintsville Substation

Mayo Trail Substation

Thelma - West Paintsville 69 kV Line

Mayo Trail - West Paintsville 69 kV Line

Big Sandy - Thelma 138 kV Line

Thelma - Phelps 69 kV Line

Thelma - Dewey 138 kV Line

Prestonsburg - Thelma 69 kV Line

1494-24

1494-23

1494-22

1494-21

1494-20

1494-19

1494-18

1494-17

1494-16

1494-15

1494-14

1494-13

1494-12

1494-11

Expanded ROW (130') and filing corridor (230') due to conductor sway

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Expanded ROW (280') and filing corridor (380') due to conductor sway

Expanded ROW (120') and filing corridor (220') due to conductor sway

Expanded ROW (120') and filing corridor (220') due to conductor sway

Expanded ROW (110') and

PAGE 5 OF 6

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KENTUCKY POWER™

An AEP Company

Sheet 6 of 6

Johnson and Floyd Counties, Kentucky

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0 1,000 2,000 3,000

Feet

November 04, 2025

PA OH IN IL WV MO KY VA AR TN NC

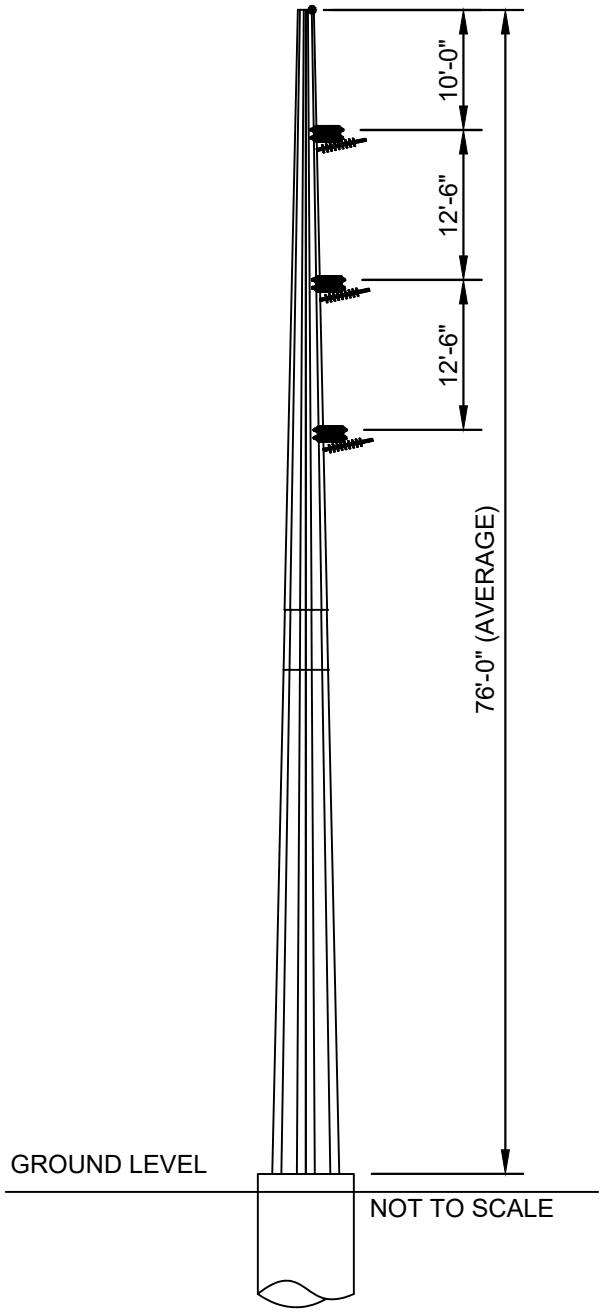
Exhibit 4: Proposed Route

Prestonsburg - Thelma Transmission Line Rebuild Project

EXHIBIT 5

STEEL MONOPOLE DEAD-END (SINGLE CIRCUIT)

(2) SHIELD WIRES



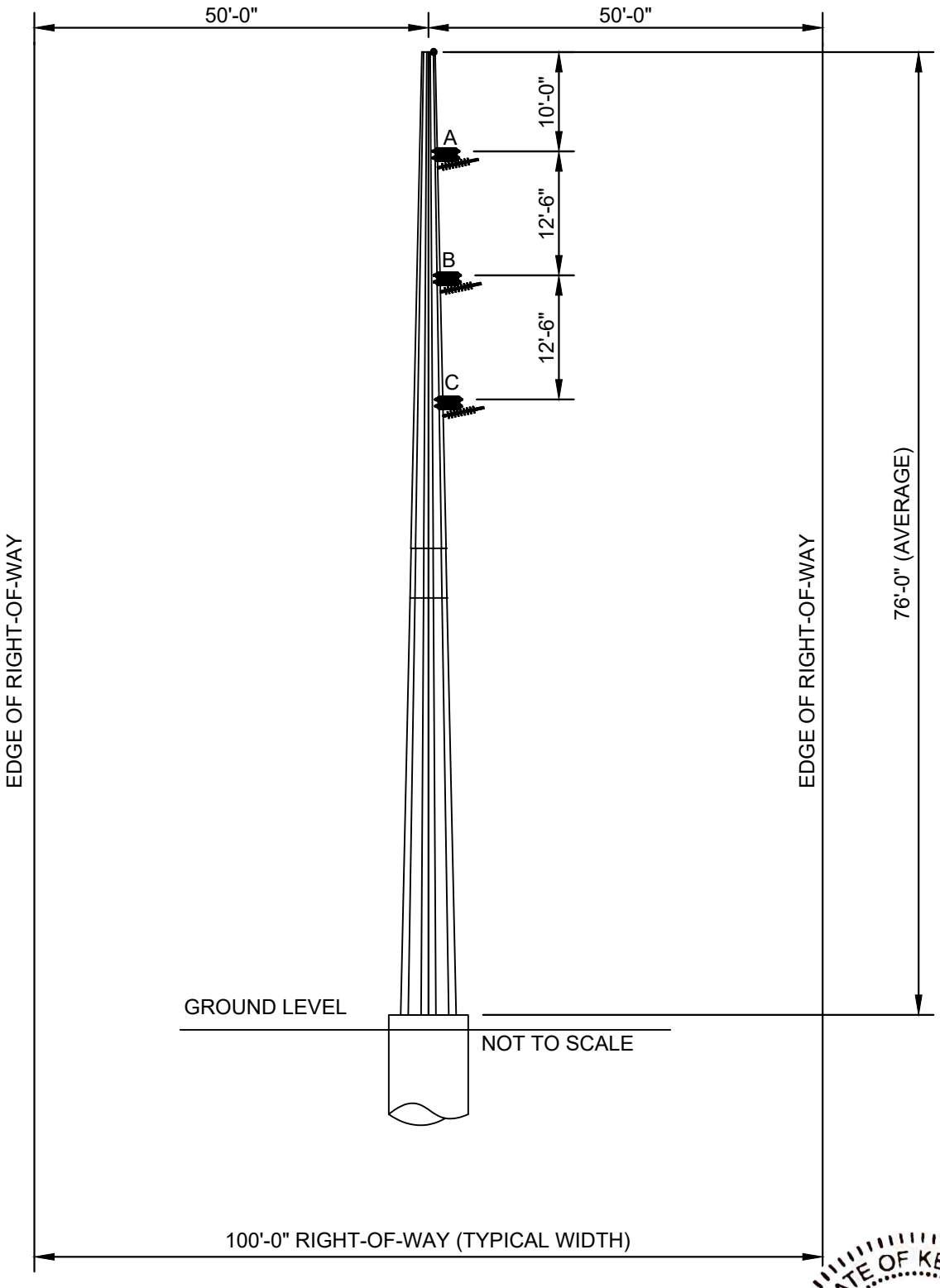
FOUNDATION: DRILLED PIER

STATE OF KENTUCKY
CHRISTOPHER
DAVID
FORNATARO
30871
LICENSED
PROFESSIONAL ENGINEER
11/3/2025

TYPICAL SCHEMATIC

STEEL MONOPOLE DEAD-END (SINGLE CIRCUIT)

(2) SHIELD WIRES

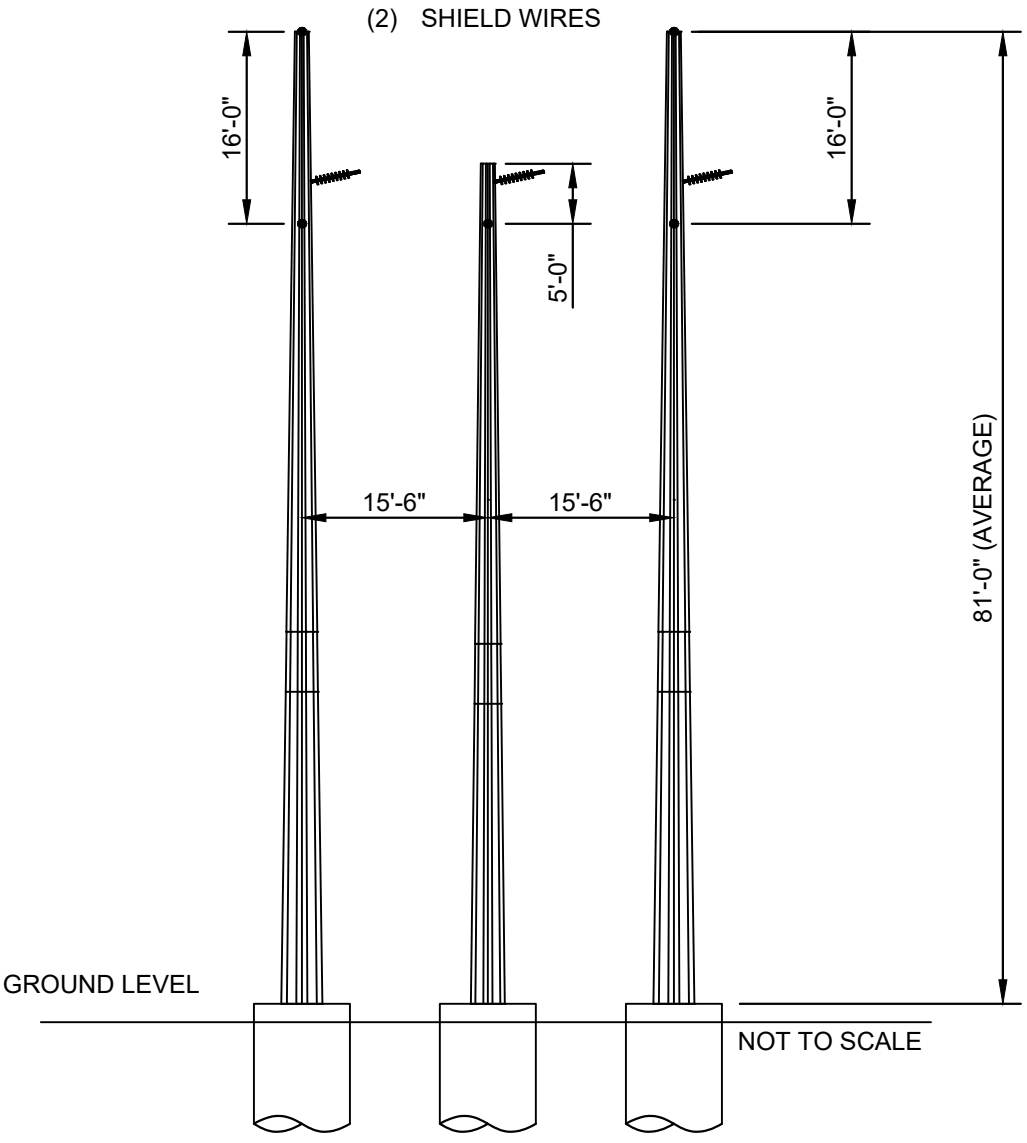


NOTE: ROW TO INCREASE BASED ON CONDUCTOR SWAY.

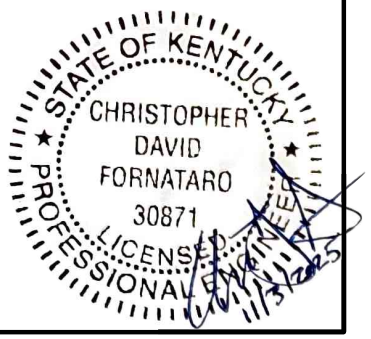
STATE OF KENTUCKY
CHRISTOPHER DAVID FORNATARO
30871
LICENSED PROFESSIONAL ENGINEER
11/3/2025

TYPICAL RIGHT-OF-WAY CROSS SECTION

STEEL 3-POLE DEAD-END (SINGLE CIRCUIT)



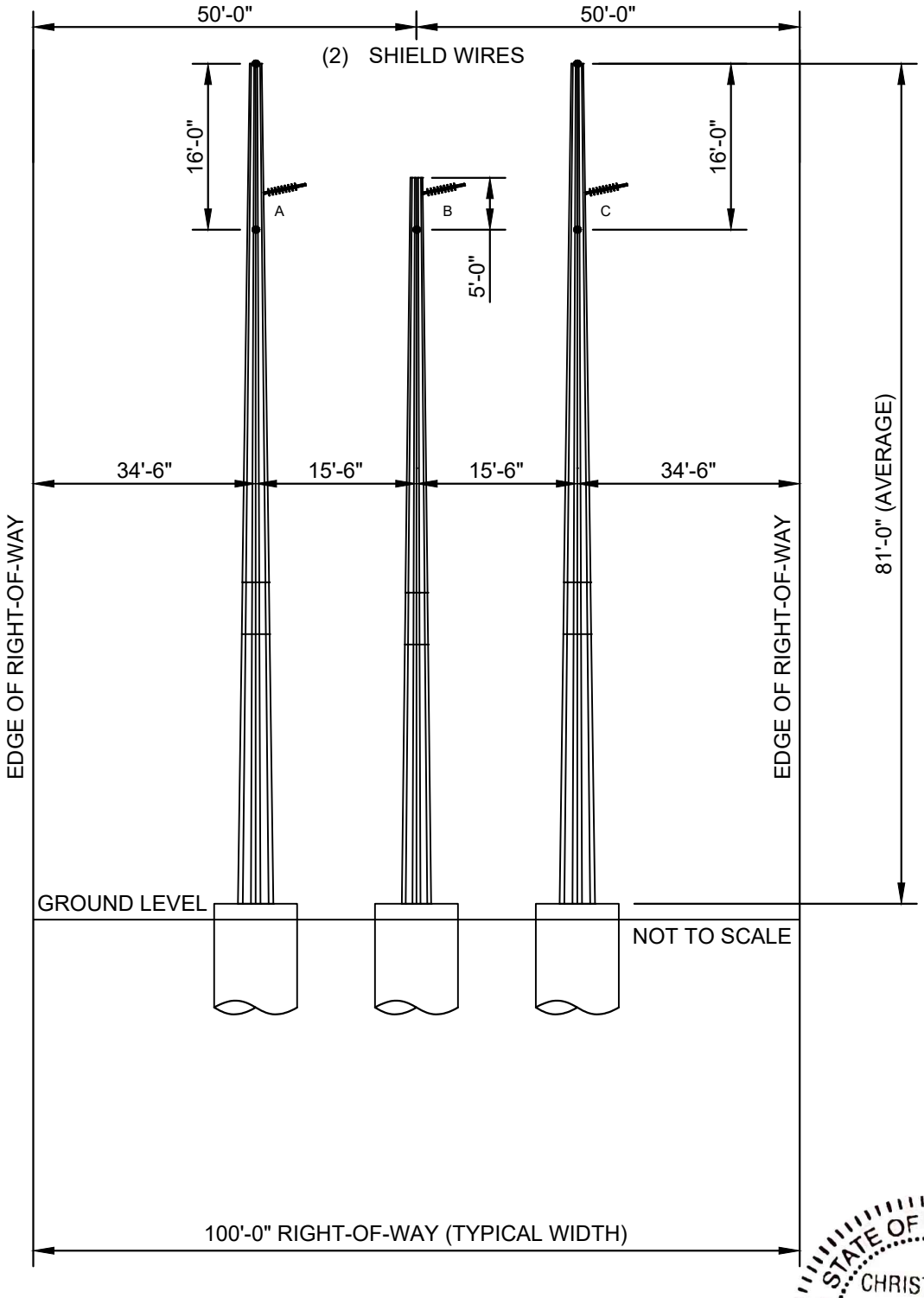
FOUNDATION: DRILLED PIER



TYPICAL SCHEMATIC

EXHIBIT 5
PROPOSED 69kV TRANSMISSION STRUCTURES (PAGE 2 OF 2)

STEEL 3-POLE DEAD-END (SINGLE CIRCUIT)

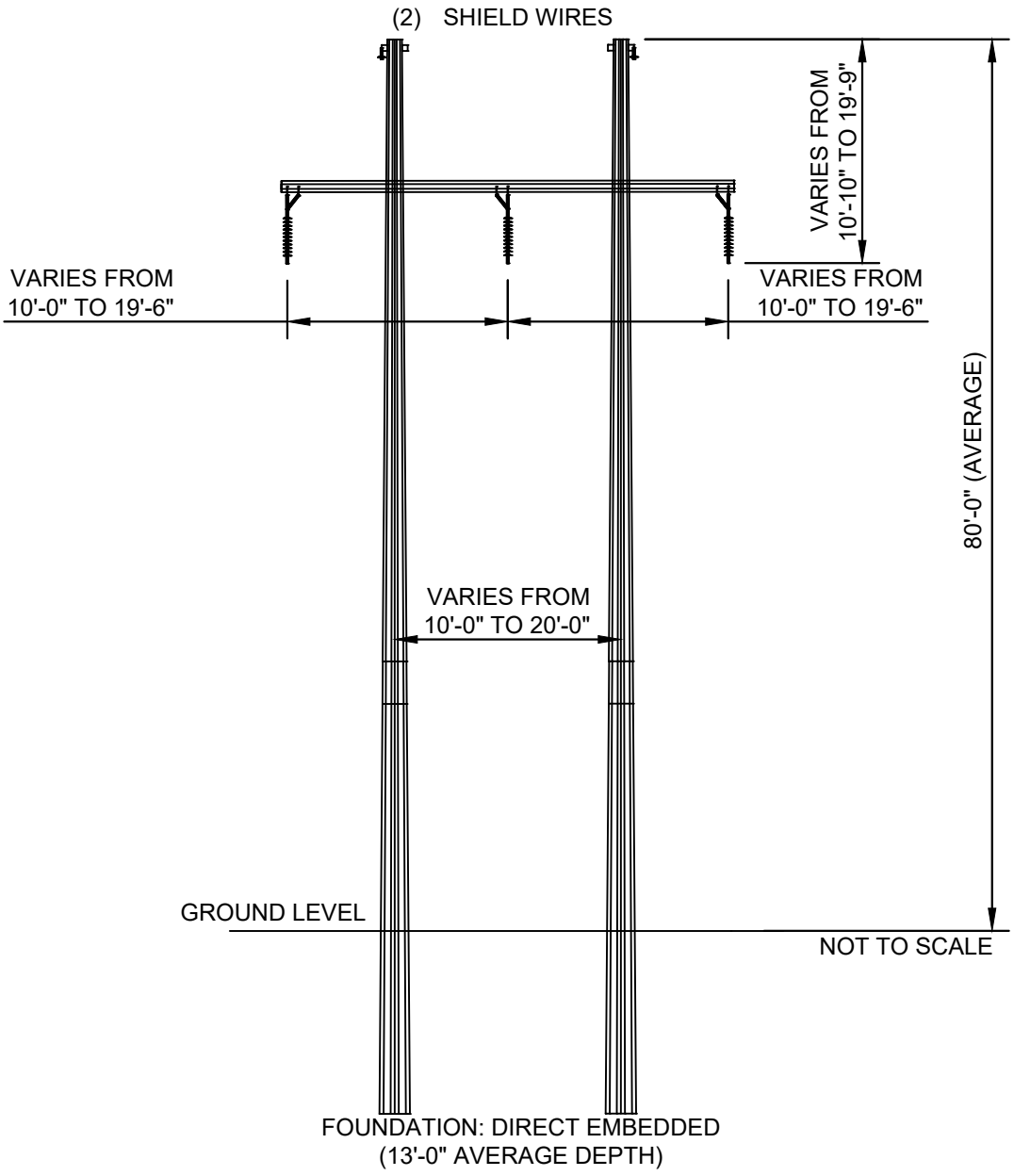


NOTE: ROW TO INCREASE BASED ON CONDUCTOR SWAY.

STATE OF KENTUCKY
CHRISTOPHER DAVID FORNATARO
30871
LICENSED PROFESSIONAL ENGINEER
11/3/2025

TYPICAL RIGHT-OF-WAY CROSS SECTION

STEEL H-FRAME SUSPENSION (SINGLE CIRCUIT)



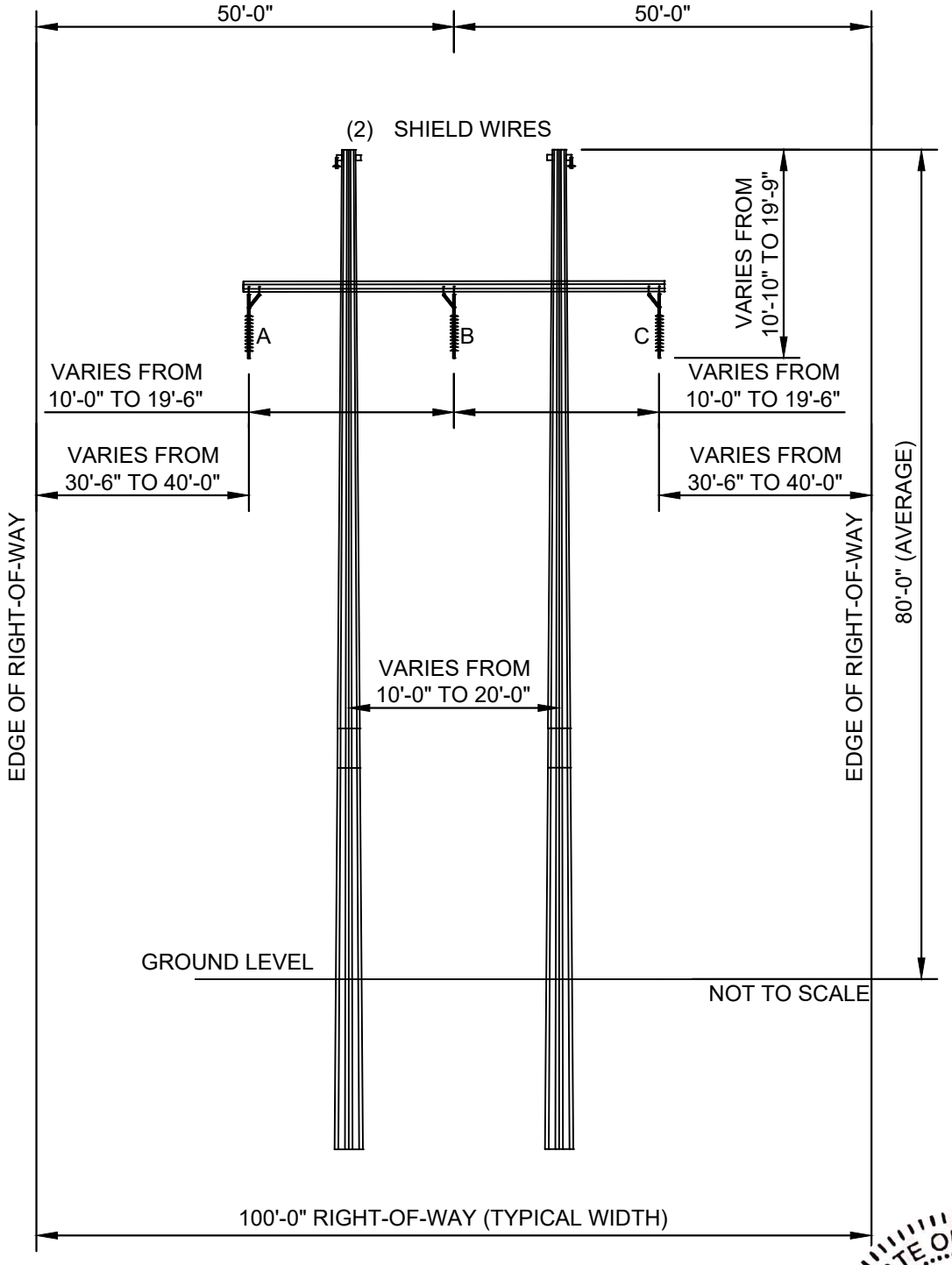
FOUNDATION: DIRECT EMBEDDED
(13'-0" AVERAGE DEPTH)

NOTE: ADD GUYS WHERE REQUIRED.

STATE OF KENTUCKY
CHRISTOPHER
DAVID
FORNATARO
30871
LICENSED
PROFESSIONAL ENGINEER

TYPICAL SCHEMATIC

STEEL H-FRAME SUSPENSION (SINGLE CIRCUIT)

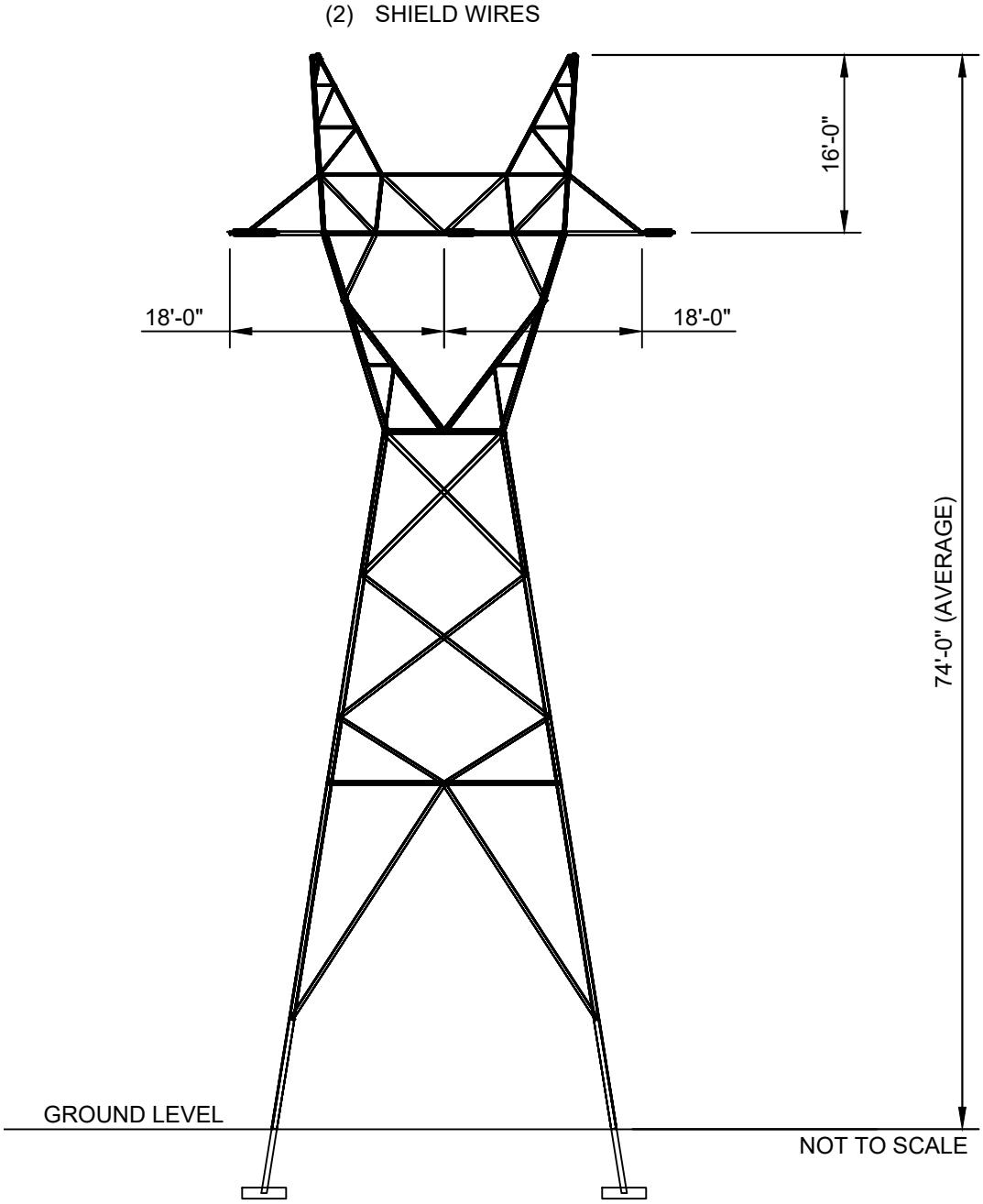


NOTE: ROW TO INCREASE BASED ON CONDUCTOR SWAY.

STATE OF KENTUCKY
CHRISTOPHER DAVID FORNATARO
30871
LICENSED PROFESSIONAL ENGINEER
11/3/2025

TYPICAL RIGHT-OF-WAY CROSS SECTION

STEEL LATTICE TOWER STRAIN (SINGLE CIRCUIT)



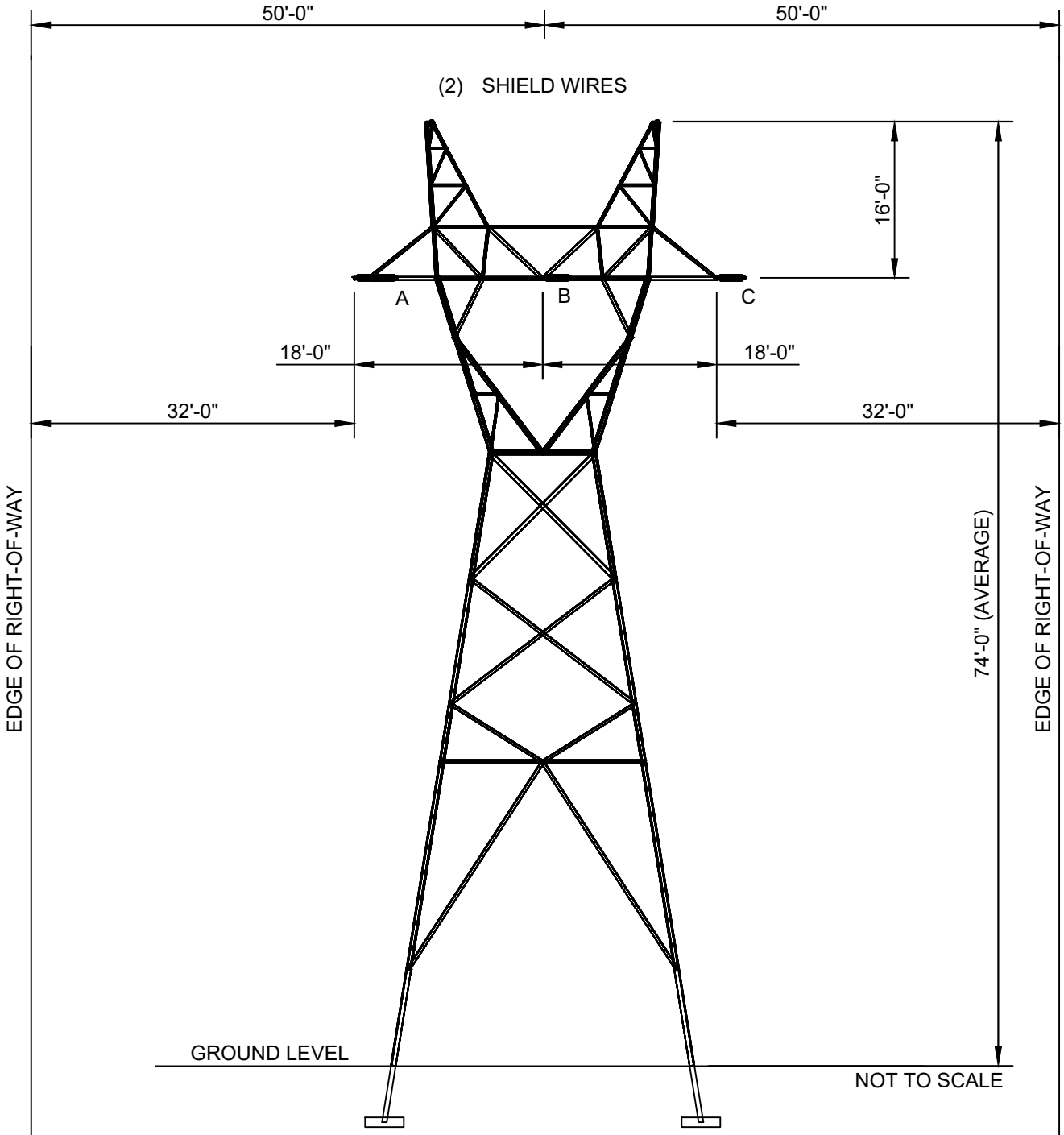
FOUNDATION: GRILLAGE
AVERAGE DEPTH: 11'-6"

STATE OF KENTUCKY
CHRISTOPHER DAVID FORNATARO
30871
LICENSED PROFESSIONAL ENGINEER
11/3/2025

TYPICAL SCHEMATIC

EXHIBIT 5
PROPOSED 69kV TRANSMISSION STRUCTURES (PAGE 2 OF 2)

STEEL LATTICE TOWER STRAIN (SINGLE CIRCUIT)



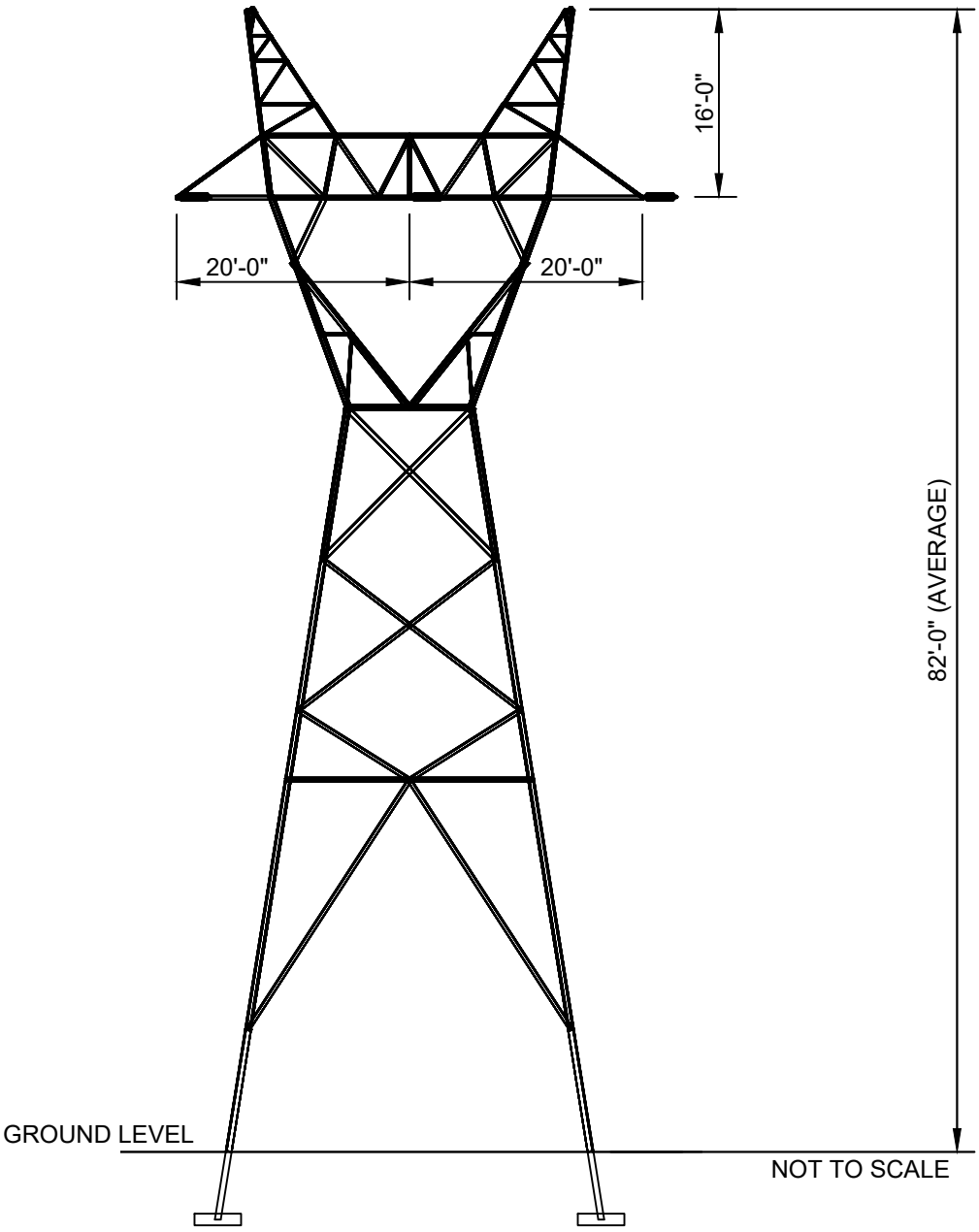
NOTE: ROW TO INCREASE BASED ON CONDUCTOR SWAY.

STATE OF KENTUCKY
CHRISTOPHER DAVID FORNATARO
30871
LICENSED PROFESSIONAL ENGINEER
11/3/2025

TYPICAL RIGHT-OF-WAY CROSS SECTION

STEEL LATTICE TOWER DEAD-END (SINGLE CIRCUIT)

(2) SHIELD WIRES

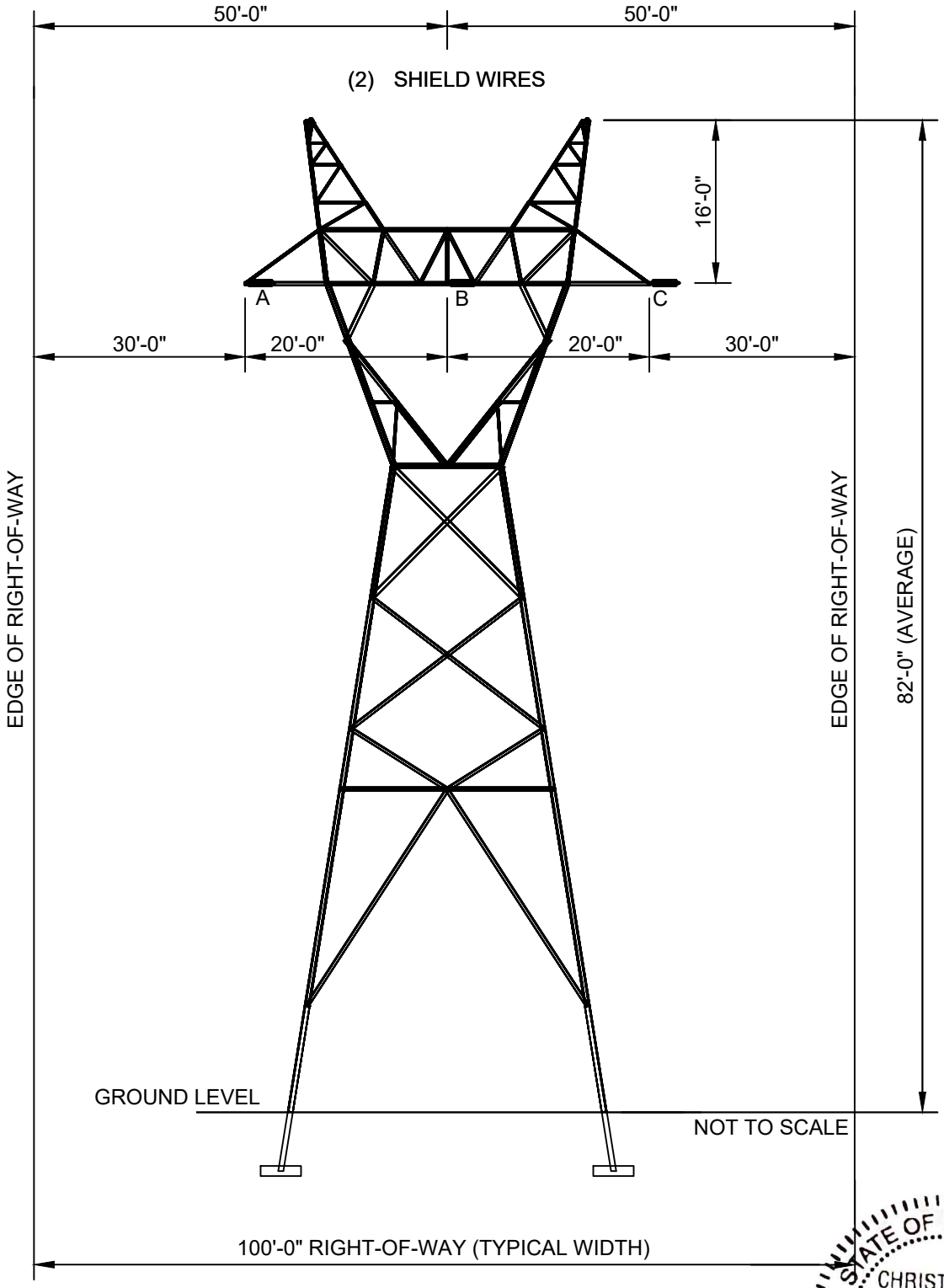


FOUNDATION: GRILLAGE
AVERAGE DEPTH: 12'-0"

STATE OF KENTUCKY
CHRISTOPHER DAVID FORNATARO
30871
LICENSED PROFESSIONAL ENGINEER
11/3/2025

TYPICAL SCHEMATIC

STEEL LATTICE TOWER DEAD-END (SINGLE CIRCUIT)



NOTE: ROW TO INCREASE BASED ON CONDUCTOR SWAY.

STATE OF KENTUCKY
CHRISTOPHER DAVID FORNATARO
30871
LICENSED PROFESSIONAL ENGINEER
11/3/2025

TYPICAL RIGHT-OF-WAY CROSS SECTION

EXHIBIT 6

Prestonsburg-Thelma 46 Rebuild Project

Identifier from Project Description on Page 1 of Application	Project **Section**	One Line Identifier	Description	One Line Asset ID	Associated Assets	Purpose	Driver for Asset Replacement/Installation
(A) Kenwood	Kenwood Substation Modifications	(1)	Construct new 69kV Bay & Incoming Prestonsburg line. Install 69kV line switches operated at 46kV, single phase Potential Transformers for Thelma & Prestonsburg lines. Install Motor Operated Switch & Circuit Switcher on High Side of Transformer XF#1. Extended Bus and relocate the 46kV Cap Switcher to existing Capacitive Coupled Voltage Transformer. location. Install 4-bay transclosure, new battery & charger. Replace Station Service with 25KVA Station Service Voltage Transformer.	69KV Line MOS A00652	Single Phase CCVT	Under Fault conditions, these Line Motor Operated Switches with the assistance of remote end breakers, can be used to sectionalize the faulted portion of the Transmission Line out of service to restore power to the Distribution Transformer	This project is being constructed to replace the existing line between Prestonsburg and Thelma substations. The new line will address identified voltage violations. Kenwood substation is currently radially fed from a deteriorating switch and radial line. The new planned line route passes near Kenwood station allowing us to provide two-way Transmission service to Kenwood substation. This infrastructure is required to appropriately support the new line connections at Kenwood substation and ensure it operates as designed.
				69KV Line MOS A00640	Single Phase CCVT		
				69KV HS XFR CS-A007S8	69KV High Side Switch A007S9. 69KV and 12KV Surge Arresters	Circuit Switcher A007S8 is used to break the load to the Transformer in the event of a Transformer or low side fault; Switch A007S9 is used to isolate the Transformer from the 46KV Bus for maintenance or for Transformer or low side fault.	
				25KVA Station Service Can	9kV MCOV Surge Arrester & 1-12kV Fused Disconnect Switch	Provides necessary electrical power to auxiliary systems and equipment. Previously installed 10KVA Station Service was determined to be undersized for the Station needs. Supports control systems, protection devices, and communication equipment.	
(B) Prestonsburg	Prestonsburg Substation Remote End	(2)	Upgrade remote end of 46kV Thelma Line by adding Single Phase 46kV Line Potential Transformers. Replace High Side & Low Side arresters on XF #1 with station class arresters and mount them on the existing transformer brackets.	46kV Single Phase Line PT	46kV PT Cabinet	PCE utilizes the Line Potential Transformers to measure voltage changes on the line which informs their protection relays.	This equipment is standard PCE equipment required to adequately protect the rebuilt transmission which addresses voltage violations and ensure the substation operates intended.
				46kV HS and 12kV LS Surge Arresters	46kV/12kV Transformer XF#1	Surge Arresters limit the voltage that can appear across the transformer terminals, preventing damage from transient over voltages to nearby equipment.	
(C) Thelma	Thelma Substation Transformer Replacement	(3)	Replace Transformer #1 with a 78/104/130MVA Autotransformer including new surge arresters. The existing transformer will be used as a spare. Replace the 46kV bus Potential Transformer with a three-phase application. Upgrade primary and secondary station service.	138/69/46KV Transformer TR1	138kV, 69KV and 12KV Surge Arresters. 138kV HS MOS A007Q3	Growing Peak Loads and Prestonsburg-Thelma Line Rebuild requires a larger MVA Transformer to replace the existing one at Thelma Station	This project is being constructed to replace the existing 138/69/46KV Transformer TR1 at Thelma substation. The existing Transformer TR1 overloads under contingency pairs. The larger MVA 138/69/46KV Transformer prevents the identified overloads. The equipment installed includes the new transformer, supporting equipment and upgrades required to support the substation to ensure that it operates as intended.
				138kV CS-A007Q2	138/69/46KV Transformer TR1.138kV HS MOS A007Q3	Circuit Switcher A007Q2 provides a means to isolate the Transformer in the event of a Transformer or low side fault; Switch A007Q3 is used to isolate from the 138KV Bus for maintenance or for Transformer or low side fault.	
				69kV Primary & Secondary Station Service	18kV MCOV Surge Arrester & 1-15kV Fused Disconnect Switch	Provides necessary electrical power to auxiliary systems and equipment. Previously installed 25KVA Station Service was determined to be undersized for the Station needs. Supports control systems, protection devices, and communication equipment. Primary and Backup services ensure station reliability if one of the sources is unavailable.	

EXHIBIT 7

Part 1 of 2

Rebuild Siting Study

for

Prestonsburg – Thelma

Transmission Line Rebuild Project

Prepared for:

KENTUCKY POWER
An AEP Company
BOUNDLESS ENERGY™

Prepared by:

POWER Engineers, Inc.
6641 W. Broad Street
Richmond, Virginia 23230

POWER ENGINEERS

October 2023

TABLE OF CONTENTS

ATTACHMENTS

Attachment G: Aerial Mapbook (Proposed Route)

Attachment H: March 2025 Siting Study Addendum Route Maps

Attachment I: October 2025 Siting Study Addendum Route Maps

Key Terminology

Alternative Routes	Assemblage of Study Segments that form routes for analysis and comparison.
Conductor Sway Zone	The area within the right-of-way (ROW) where transmission line conductors can reasonably be expected to move under typical wind conditions plus necessary electrical clearances.
Constraints	Specific areas that should be avoided to the extent reasonably practical during the route development and site selection process.
Diversion	A minor adjustment to the existing route where no other alternative is considered.
Encroachment	Any structure or activity within an existing right-of-way that could interfere with the safe, reliable operation of transmission facilities is called an encroachment and is prohibited under the terms of a right-of-way.
Endpoints	The project starting and ending location(s), which may include substations, switch stations, tap points, or other locations defined by the Company's planners and engineers.
Fence Line Communities	Members of the general population who are in proximity to air emitting facilities or a receiving waterbody and who, therefore, may be disproportionately exposed to a chemical undergoing risk evaluation under Toxic Substances Control Act (TSCA).
Land Use	Describes the human use of the land and activities at a given location such as agricultural, residential, industrial, mining, commercial, and recreational uses. It differs from land cover, which only describes the physical characteristics (summarized from EPA.gov).
Opportunity Feature(s)	Areas or existing linear features along which the transmission line may have less disruption to area land uses and the natural and cultural environment.
PJM	A regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia.
Project	The proposed transmission facilities studied in the siting report.
Proposed Route	The alignment on which the applicant/Siting Team proposes to construct a transmission line. The Proposed Route (1) reasonably minimizes adverse impacts on area land uses and the natural and cultural environment; (2) minimizes special design requirements and unreasonable costs; and (3) can be constructed and operated in a safe, timely, and reliable manner.

Rebuild Segments	Conceptual routing segments that consider the use of existing ROW.
Reroute Segments	Conceptual routing segments that consider areas outside the existing ROW given the presence of constraints.
Siting Team	A multidisciplinary team of experts in transmission line routing, environmental impact assessment, impact mitigation, engineering, and construction management.
Study Area	The territory in which line route alternatives can be sited to feasibly meet the project's functional requirements and, at the same time, minimize environmental impacts and project costs.
Study Segments	Study Segments are partial alignments that, when combined, form a complete route.
Substation or Station	Substations or stations are facilities that transform bulk electric voltage down to distribution levels and/or provide protection and controls for the transmission electric grid. Typical equipment includes switches, circuit breakers, buses, and transformers.
Transmission Line	An electric line that operates at 69 kilovolts and/or above and has the purpose of moving power from a generation facility to a substation or between substations.

ACRONYMS

AEP	American Electric Power
CBG	Census Block Group
Company	Kentucky Power Company
DOT	Department of Transportation
EJ	Environmental justice
EKPC	Eastern Kentucky Power Cooperative
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
IPaC	Information for Planning and Consultation
Kentucky Power	Kentucky Power Company
kV	Kilovolt
KYEEC	Kentucky Energy and Environment Cabinet
KYTC	Kentucky Transportation Council
LiDAR	Light Detection and Ranging
NHD	National Hydrography Dataset
NLCD	National Land Cover Database
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
Project	Prestonsburg – Thelma Transmission Line Rebuild Project
ROW	right-of-way
U.S.	United States
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 PROJECT DESCRIPTION

Kentucky Power Company (Kentucky Power or Company) is proposing to rebuild an existing 46-kilovolt (kV) transmission line in Floyd and Johnson counties, Kentucky to upgrade aging infrastructure. The Prestonsburg – Thelma Transmission Line Rebuild Project (Project) will rebuild approximately 12 miles of the existing Prestonsburg – Thelma 46 kV Transmission Line to 69-kV standards between the existing Prestonsburg and Thelma substations and continue to operate at 46 kV. The Project will ensure continued reliable electric service by upgrading aging infrastructure with modern equipment.

The Project is needed to address the deteriorating condition and performance of the existing infrastructure. The existing 46-kV line was constructed in the 1960s using wooden H-frame structures. From 2013 to 2018, the existing circuit experienced 22 momentary and permanent outages. The transmission line will be rebuilt primarily using single-circuit steel H-frame structures; however, lattice tower structures may be used in select locations to accommodate longer spans. Final structure types will depend on detailed engineering and additional studies. The anticipated height of the single circuit structures will be between 80-100 feet and will vary along the route depending on topography and any other potential constraints. The transmission line will be rebuilt primarily in new right-of-way (ROW) typically 100 feet wide and will require new easements for safe operation. A Project summary and illustrations are included in **Attachment A, Outreach Fact Sheet**.

The Project requires approval from the Kentucky Public Service Commission for a Certificate of Public Convenience and Necessity, and the Company anticipates filing the application in March 2024.

The Company initiated the Project siting process in May 2022 by developing and reviewing conceptual routes to be considered for the Project. The Company met with local Floyd and Johnson County officials in September 2022 to introduce the Project and solicit feedback. Study segments were presented to the public in December 2022 through a Project-specific website and an in-person open house. In addition, the Company announced a comment period to solicit the public's feedback on the Project. Pending issuance of all required federal, state, and/or local permits, construction is expected to begin in the second quarter of 2025.

This Siting Study describes the transmission line route development process and rationale for the proposed route selection.

2.0 ROUTE DEVELOPMENT PROCESS

2.1 Siting Team

The route development process begins by assembling a multi-disciplinary team with a wide range of expertise including (but not always limited to) transmission line siting, environmental impact assessment, impact mitigation, engineering, construction management, project management, electrical system planning, and public relations (**Siting Team**). The Siting Team includes American Electric Power (AEP) employees and outside consultants. Additional expertise is added depending on Project needs.

The Siting Team works together to develop siting criteria, identify siting constraints and opportunity features, collect, and analyze environmental and design data, solicit stakeholder input, coordinate with resource and permitting agencies, develop and revise study segments and alternative routes, and analyze and report on selecting a proposed route.

2.2 Route Development Process Overview

The route development process is an inherently iterative process with frequent modifications made throughout the siting study. Iterations result from identifying new constraints; inputs from agencies, landowners, residents, and other stakeholders; periodic reassessment of routes with respect to siting criteria; and adjustments to the overall route network. As a result of the evolving nature of the route development process, specific vocabulary is used to describe the routes during different stages of development. An overview of the route development process and related vocabulary follows.

Initial route development starts with identifying the **Project Endpoints.** Endpoints may include substations, switch stations, tap points, or other locations defined by the Company's planners and engineers. Next, **Constraints and Opportunity Features** are identified within a defined **Study Area**, which encompasses the Project Endpoints and the area in between. Initial constraints and opportunity features typically are identified using readily available public data sources and supplemented with stakeholder input and field inspections.

Once the Project Endpoints, Study Area and Constraints and Opportunity Features are identified, the **Siting Team** develops an array of **Conceptual Routes** for the Project that adhere to a series of general siting and technical guidelines.

Where two or more of these Conceptual Routes intersect, **Study Segments** are formed between two common points of intersection. Together, the assemblage of Study Segments is referred to as the **Study Segment Network.**

As the route development process progresses, the Siting Team continues to evaluate new data (e.g., public and stakeholder input and field inspections) and modifies Study Segments in the network, if necessary, to develop a **Refined Study Segment Network.** Eventually, **Alternative Routes** are developed by assembling those Study Segments that reasonably meet **Siting Guidelines** into individual routes to be analyzed further. Assessment and comparison of Alternative Routes are undertaken by considering potential natural and cultural resources, land uses, and engineering and construction considerations. Ultimately, through a quantitative and qualitative analysis and comparison of the Alternative Routes, the **Siting Team** identifies a **Proposed Route** which is the route that best meets the Siting Study goals.

2.3 Data Collection

The Siting Team used numerous information sources to develop data for the Siting Study. Data for existing and historic land uses, natural resources, cultural resources, transportation facilities, and existing utility and linear features was collected and reviewed by the Siting Team to support the Siting Study (**Attachment C – GIS Data Sources**).

2.3.1 Geographic Information Systems (GIS) Data Collection

Aerial photography is an important tool for route selection. The primary sources of aerial imagery used in route identification, analysis, and selection for the Project include:

- Google Earth
- Esri Imagery
- LiDAR Imagery (flown February 2023)

Updated information, such as the location of new residences and other potential constraints, was annotated to the photography by either paper maps (at public meetings) and transferred into the GIS or digitized directly into the GIS as it was identified during field inspections.

Existing GIS data sets obtained from many sources including federal, state, and local governments were used extensively during the Siting Study (**Attachment B – Data Collection Summary**). Much of this information was obtained through official agency GIS data access websites, some was provided directly by government agencies, and the Siting Team created some by digitizing information from paper-based maps, aerial photo interpretation, interviews with stakeholders, and field inspections.

GIS data sources vary with respect to their accuracy and precision. For this reason, GIS-based calculations and maps presented throughout this Siting Study should be considered reasonable

approximations of the resource or geographic feature they represent and not absolute measures or counts. The data and calculations presented in this Study allow for relative comparisons among Project alternatives. Field reconnaissance is conducted to verify certain features (e.g., locations of residential, commercial, and industrial buildings).

The Siting Team also reviewed the Floyd County Comprehensive Plan and Paintsville/Johnson County Community Strategic Plan to identify any future land use plans within the Study Area. There were no recorded land use plans that would directly impact the Project.

2.3.2 Federal, State, and Local Government Coordination

The Siting Team obtained information from or contacted various federal, state, and local agencies and/or officials to inform them of the Project and request data for consideration in the route development process. To date, these agencies provided responses: United States (U.S.) Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), U.S. Department of Transportation (DOT) Federal Highway Administration, State of Kentucky Nature Preserves, and the U.S. DOT Federal Aviation Administration (FAA). Agencies contacted are listed below, and copies of agency correspondence are included as **Attachment D - Agency Correspondence**.

Federal Agencies

- U.S. Environmental Protection Agency (EPA), Region 4
- U.S. Fish and Wildlife Service (USFWS), Kentucky Ecological Services
- USDA NRCS, Kentucky
- U.S. DOT Federal Highway Administration, Kentucky Division
- U.S. DOT FAA, Southern Region, Planning and Programming Branch

State Agencies

- State of Kentucky Nature Preserves
- Kentucky Office of Energy Policy
- Kentucky Department of Environmental Protection
- Kentucky Heritage and Council State Historic Preservation Office
- Kentucky Office of Archeology
- Kentucky Transportation Cabinet Department of Highways
- Kentucky Department of Natural Resources
- Kentucky Office of the Secretary

Local Agencies and/or Officials

The Siting Team coordinated with these local government agencies and officials to aid the route development process:

- Floyd County Clerk's Office
- Johnson County Clerk's Office
- Johnson County Community Development
- City of Prestonsburg Office of Zoning Ordinance
- Floyd County Chamber of Commerce

2.3.3 Field Reconnaissance

Siting Team members conducted field inspections within the Study Area throughout the duration of the siting process. Team members examined Study Segments by automobile from public roads and other points of public access and correlated observed features to information shown on aerial photography, United States Geological Survey (USGS) 7.5-minute topographic maps, road maps, and GIS sources. Before field inspections, some key features such as residences, outbuildings, places of worship, cemeteries, and commercial and industrial areas were identified and mapped in GIS based on desktop review. These features were field-verified and added to the GIS database during field inspections typically by using laptops/tablets running GIS software supported by real-time Global Positioning System (GPS). Field visits provided the Siting Team with a high-level understanding of the Project area and the opportunity to review Study Segments in the field from points of public access.

2.3.4 Public and Stakeholder Input

Public and stakeholder input is critical to the route development process; specifically, when landowners and stakeholders provide information and recommendations to aid the Siting Team in developing and refining study segments and alternative routes. Typically, a project-specific outreach plan that may include open houses, websites, mailings, advertising, etc. is developed. Public and stakeholder input for the Project is described in greater detail in Section 4.0.

2.4 Siting Guidelines

2.4.1 General Guidelines

The Siting Team used these general siting guidelines to help develop Study Segments and routes to the extent reasonable and practical:

- Avoid crossing or minimize conflict with designated public conservation and protected lands such as national and state forests and parks and local conservation easements.
- Avoid or minimize new crossings of large lakes, rivers and large wetland complexes, critical and protected habitats, and other unique or distinct natural resources.
- Avoid or minimize habitat fragmentation in unfragmented areas and impacts on designated areas of biodiversity concern.
- Maximize the separation distance from and/or minimize impact on dwellings and community facilities, cemeteries, schools, daycare facilities, hospitals, historic resources, and designated landmarks.
- Avoid or minimize visibility from designated scenic resources.
- Avoid or minimize conflict with existing land uses and future development with a proposed plan, schedule, and permitting process underway.
- Minimize interference with existing and future economic activities, natural gas activities, mining operations, and industrial facilities.
- Consider using or paralleling existing ROWs or other linear features and infrastructure when feasible. When paralleling existing facilities, however, reliability issues and mitigation requirements must be evaluated.
- Consider paralleling property lines, land use breaks, and land cover edges.
- Consider stakeholder input.
- Avoid conflicts with designated public and military aviation facilities.
- Minimize environmental impact and construction/maintenance costs by selecting shorter, direct routes.
- Consider safety with respect to construction, maintenance, and operation of the facilities.
- Consider construction concerns such as access, road traffic control, outages, pipeline mitigations, railroad interactions, existing telecommunication and distribution line conflicts, etc.
- Consider routes through terrain and land use where economical construction and environmental best management practices can be employed.
- Minimize environmental impacts by considering routes that minimize the overall length of access roads, length on steep slopes, and waterbody crossings.

- Consider state-specific regulatory siting guidelines if available.
- Fairly consider potential environmental impacts on the surrounding community and area.

2.4.2 Technical Guidelines

Technical guidelines are driven by the physical characteristics and engineering limitations of the structures and lines themselves and the design criteria necessary to meet AEP design standards, North American Electric Reliability Corporation (NERC) reliability standards, National Electric Safety Code, and industry best practices for construction. These technical guidelines were informed by (1) the technical expertise of engineers and other industry professionals responsible for the reliable, safe and economical construction, operation, and maintenance of electric system facilities; (2) NERC reliability standards as implemented by PJM (the regional transmission organization that monitors the electric grid in 13 states); and (3) industry best practices.

The Siting Team considered these technical guidelines during study segment and route development to the extent practical:

- Minimize crossings of higher voltage transmission lines and the existing transmission line.
- Maintain a minimum of 100 feet of centerline-to-centerline separation when paralleling 138-kV or lower voltage transmission lines.
- Minimize angles greater than 65 degrees.
- Minimize structures on steep slopes (generally, this is more than 20% slopes for angle structures and more than 30% for tangent structures), particularly if guy wires are required for construction.

3.0 ALTERNATIVE ROUTE IDENTIFICATION

3.1 Project Endpoints

The Project Endpoints include the Company's existing Prestonsburg Substation and the existing Thelma Substation. The Project also includes rebuilding a double circuit transmission line to the Company's existing Kenwood Substation to address outage and engineering requirements associated with the Project. The existing transmission line currently connects to the Company's existing Mayo Trail Substation; however, the line is not required to feed into the Mayo Trail Substation for this Project.

Study Segments are partial alignments connecting Project Endpoints within the Study Area (**Attachment E – Route Development Maps, Map 1**). Study Segments are developed to meet the Project's need and, at the same time, minimize natural and human environmental impacts and Project costs.

3.2 Initial Project Review

In assessing the suitability of using the existing Prestonsburg – Thelma 46-kV Transmission Line ROW, the Company undertook these activities:

- Company planners determined that an extended outage to rebuild the existing line within or near the existing ROW is not feasible. An outage on circuits between the Prestonsburg, Kenwood, and Thelma substations will be needed, and during these outages Kenwood will be radially fed. An outage also will be needed between the West Paintsville and Mayo Trail substations which service the Project circuits. Because of these outage constraints, Planners recommended limiting the amount of time Kenwood Substation is radially fed to minimize unplanned outage risk. Additionally, the planners determined that by using a new western route through the Kenwood Substation, the planned future Kenwood Loop project and approximately 5 miles of future transmission line could be eliminated.

- Company engineers undertook desktop and field examinations and determined rebuilding in the existing ROW is impractical. The existing line is located on steep side slopes with slip prone areas and constructability issues. Furthermore, due to the terrain, additional transmission line structures and access roads would be necessary with associated additional environmental impacts. The 1960s existing line was built with numerous and smaller wood structures while today's standards require larger steel structures (but less numbers) to meet National Electric Safety Code (NESC) and AEP clearance requirements. Construction of the proposed steel transmission line structures would be unreasonable on these steep slopes when a less impactful, more cost-effective, and shorter option is available.

- Company ROW agents undertook field reconnaissance of the existing ROW and found that the ROW contains several existing encroachments including sheds, barns, residences, and other buildings.

- POWER Engineers, Inc. was retained to evaluate any potential environmental and land use impacts from the Project and coordinate with appropriate environmental agencies. The Project Team concluded that, in this case, utilizing new ROW would help minimize impacts to multiple wetlands, road crossings, and waterway crossings as compared to using the existing ROW.

- Meetings with local officials and stakeholders were conducted, and a virtual meeting with Floyd and Johnson counties to discuss potential land impacts regarding new easements was held September 29, 2022. A public open house was held December 5, 2022, and affected landowners and adjacent landowners were contacted ahead of that meeting by phone and letter concerning the Project. Landowner concerns about the Project were recorded and no opposition to building in new ROW was identified.

Based on this information, the Project Team determined that a majority of the Project will require new ROW (Study Segments) and will be built in the clear.

3.3 Study Area Description

The Study Area is the territory where line route alternatives can be sited to feasibly meet the Project's functional requirements and reasonably minimize environmental impacts and reduce Project costs. Study Area boundaries were defined by the geographic area encompassing the Project Endpoints. The Study Area was intended to include all practical conceptual routes between these endpoints. Between the existing Thelma and Prestonsburg substations the Study Area is generally bounded by the existing transmission line as well as Kentucky State Highway 302 to the east and Kentucky State Route 23 to the west. The Study Area contains rolling hills and mountainous terrain that creates potential engineering and constructability challenges associated with constructing on steep terrain with limited access. The Siting Team identified a Study Area encompassing approximately 27,750 acres (29 square miles) in Floyd and Johnson counties, Kentucky (**Attachment E, Map 1**).

3.3.1 Constraints and Opportunity Features

The Siting Team identified and mapped siting constraints and opportunity features within the Study Area as described below and shown on the Study Area map (**Attachment E, Map 1**).

Constraints

Constraints are specific areas that should be avoided during route development to the extent practical. Using readily available public data sources, the Siting Team initially identified these constraints early in the route development process:

- Populated areas including towns, small villages, urban areas, and other high concentrations of residential, commercial, and industrial development areas (City of Prestonsburg, Kentucky).
- National Register of Historic Places (listed and eligible).
- Recreational areas such as parks and large recreational reservoirs.
- Streams, wetlands, flood zones or unique natural resource features, and critical habitat areas.
- Designated federal or state forests, parks, state game lands, and other natural and conservation areas.
- Large future land use plans.
- Active and future mining or quarry areas.
- Gas processing plants, compressor stations, and wells.
- Mining lands.

The Study Area includes constraints associated with the City of Prestonsburg, Dewey Recreation Area, Paintsville-Prestonsburg-Combs Field Airport, Jenny Wiley State Park, Paintsville Golf Course, Levisa Fork, terrain challenges, and slope stability.

As the Siting Team developed Study Segments, smaller site-specific constraints were identified using readily available public data sources, stakeholder input, and field inspections. Study Segments were adjusted throughout the iterative route development process to avoid small constraints where feasible, including but not limited to:

- Individual residences (i.e., houses, mobile homes, and multi-family buildings)
- Commercial and industrial buildings
- Outbuildings and barns
- Cemeteries

- Churches
- Schools
- Hospitals
- Designated historic resources and landmarks
- Small wetlands
- Specific recreational sites, facilities, and trails
- Radio and communications towers
- Key and designated scenic vista points
- Site-specific future land use plans
- Gas compressor stations, lines, and wells
- Caves and springs
- Mining lands

Opportunity Features

Opportunity features are typically existing corridors, areas, or edges where a transmission line would be a compatible land use or its presence would be reduced by an existing linear feature. Opportunity features typically considered include other linear infrastructure and utility corridors, rail lines, and roads, and may include land cover edges, unused portions of industrial or commercial areas, or parcel boundaries. Siting opportunities identified within the Study Area are presented on the Study Area map (**Attachment E, Map 1**).

- Existing Prestonsburg – Thelma 46-kV Transmission Line
- East Kentucky Power Cooperative (EKPC) transmission line running generally north to south on the east side of the Study Area
- U.S. Highway 23 running generally north to south on the west side of the Study Area

There are limited siting opportunities available within the Study Area. Using the existing Prestonsburg – Thelma 46-kV Transmission Line ROW was the primary siting opportunity for the Project; however, suitable locations to use the existing ROW were limited because of road crossings, encroachments, and engineering challenges. Similarly, opportunities to parallel the existing transmission line were limited due to existing encroachments and terrain challenges.

There are many roadways including Kentucky State Route 321 and Kentucky Route 114 in the Study Area that could be paralleled for short distances however these roads are winding and portions are near residential areas. Similarly, communication and distribution lines were not considered an opportunity feature in the Study Area because they too are winding and near residential areas. While crossing active mining areas is often a constraint because of mining techniques such as blasting, inactive or previously mined areas are often an opportunity because they are typically large areas without residential development and often have existing access roads from former mining operations.

3.4 Routing Concepts

Routing concepts that considered opportunities and constraints for the proposed transmission line were identified by the Siting Team at the onset of the route development process and were considered with general routing and technical guidelines. Routing Concepts considered for the Project are shown on **Attachment E, Map 2**. The Siting Team considered rebuilding on existing centerline in less developed areas and where there was ideal terrain for ridgetop-to-ridgetop spans. The Siting Team also looked at utilizing an existing corridor of non-Kentucky Power transmission line and paralleling when feasible. Rebuild routes that generally followed U.S. Highway 23 were considered but dismissed because of residential development, road crossings, Levisa Fork crossings, and terrain challenges. The Siting Team looked for a way around the Paintsville-Prestonsburg-Combs Field Airport by routing to the east and west of the airfield. They also looked for ways to avoid the Paintsville Golf Course south of the Thelma Substation by utilizing existing ROW or paralleling the non-Kentucky Power transmission line. The Siting Team looked for road crossing locations with minimal development and for ridgelines where span length can be maximized. This can reduce structures but also requires wider conductor sway areas and taller structures. Study Segments were refined from these Routing Concepts before and after field review (**Attachment E, Map 2**).

3.5 Study Segment Development

The Siting Team developed a series of Study Segments based on the route development process and criteria described in Section 2.0. Study Segments are partial alignments based on Routing Concepts. As the siting process evolved, Study Segments were revised, removed, or added. These eliminations or adjustments were based on the likelihood of impacts on residential, commercial, and industrial areas, agricultural areas, planned and future development and natural areas. The resulting network of Study Segments used to collect public and stakeholder input is shown on **Attachment E, Map 2**. Study Segments were evaluated and refined after public and stakeholder was received (Section 4.0).

3.5.1 Study Segments

Prestonsburg – Kenwood

Study Segment 1 was developed by the Siting Team as the only feasible way to avoid the residential and commercial areas east of the existing Prestonsburg Substation. Study Segment 1 avoids the slide prone area where the existing line is constructed currently and deviates to the northwest along the ridgetop and then north on the east side of U.S. Route 23. Study Segments 2 and 3 continue from Study Segment 1 and traverse ridgetop to ridgetop northwest of the existing line avoiding residential development along local roads.

Study Segment 3 continues from Study Segment 1 as a western option following the east side of U.S. Route 23. Study Segment 3 parallels the highway until it intersects with Study Segment 8 to the northwest to avoid the Highlands ARH Regional Medical Center. Study Segment 8 heads north towards Kenwood Substation; however, it is constrained by the Paintsville-Prestonsburg-Combs Field Airport on Kentucky State Route 321. Study Segment 8 angles to the northwest to avoid the airport and spans along the ridgetop across a largely undeveloped area before crossing over to Kenwood Substation directly from the west.

The central option begins as Study Segment 5 branches off Study Segment 2 to continue directly north to avoid the Highlands ARH Regional Medical Center. Study Segment 5 crosses Kentucky State Highway 3 and intersects with both Study Segments 6 and 7; Study Segment 7 continues north to intersect with Study Segments 3 and 8 and continue along with western path. Study Segment 6 angles off to the northeast, crossing the Levisa Fork to avoid terrain and a surrounding residential area north of the Highlands ARH Regional Medical Center before intersecting with Study Segments 9 and 4. Study Segment 9 turns to the northeast before returning to existing centerline to enter Kenwood Substation from the east.

For the eastern path, Study Segment 2 heads directly north minimizing transmission line length and spans to the east crossing Cliff Road west of the existing railway and Levisa Fork. Study Segment 4 branches off from Study Segment 2 to avoid the Highlands ARH Regional Medical Center by diverting to the east. Study Segment 4 continues to the northeast and spans along ridgetops, then intersects with Study Segment 9 to enter the existing Kenwood Substation from the east.

Study Segment 10 is the only suitable option to leave Kenwood Substation from the east and utilize the existing ROW. Study Segment 11 is the only suitable crossing of Kentucky State Highway 302 for continuing north due to the surrounding terrain and multiple residential properties.

Kenwood – Thelma

A western option continues as Study Segment 13 continues from Study Segment 11 to avoid the Paintsville Golf Course. Study Segment 13 stays to the northwest paralleling the existing transmission line but placing structures along the ridgetop until it reaches Mayo Trail Substation from the south. Study Segment 13 then intersects with Study Segments 16 and 17 which utilize the existing transmission line centerline leaving Mayo Substation to the north. Study Segment 16 uses the existing ROW to run north through an existing residential housing development and crosses Levisa Fork. Study Segment 17 meets Study Segment 16 and angles to the east using existing ROW as it enters Thelma Substation directly from the west.

Alternatively, Study Segments 12 and 13 branch off Study Segment 11 to avoid the Paintsville Golf Course. Study Segment 12 continues to the northeast traversing ridgetops before intersecting with Study Segments 14 and 15. Study Segment 15 continues north, crosses Levisa Fork, and then angles around the Paintsville Golf Course and three nearby cemeteries. It then continues north until it intersects with Study Segments 16 and 17 and the existing transmission line. Study Segment 17 meets Study Segment 16 and angles to the east using existing ROW as it enters Thelma Substation directly from the west. Study Segment 14 stays to the easternmost side of the Study Area paralleling a non-AEP transmission line along the ridgetop until it angles to the east, crosses Kentucky Route 1107, and enters Thelma Substation from the southwest.

4.0 PUBLIC INVOLVEMENT

The Study Segments discussed above were presented to the public with a request for comments using a Project specific website (**www.kentuckypower.com/thelma**) that included a virtual and in-person open house, interactive overview map, fact sheet, updates and news releases, schedule information, and photographs of representative structures.

4.1 Public Communications, In-Person Open House, and Virtual Open House

The Project was announced publicly with a news release and an in-person open house held December 5, 2022. Landowners within a 1,000-foot corridor (500 feet on either side of route centerline) of the Project were notified of the December 2022 in-person open house. Landowner addresses were obtained from Floyd and Johnson counties, and notification included:

1. A news release distributed by the Company November 21, 2022, to announce the Project and open house.

2. Project mailings sent to 412 landowner addresses on November 21, 2022. These outreach mailings included a letter, postcard, fact sheet, and comment card with a prepaid postage return envelope.

In addition to the in-person public meeting, a virtual open house was created on the Project website. Content provided during the virtual open house was similar to that used during the in-person public open house. The virtual and in-person open house provided content related to engineering and design of structures, Project need, ROW, and construction including **Attachment G – Aerial Mapbook**. In addition, both open houses allowed landowners and the public to submit comments to the Siting Team and identify specific properties through an address search tool.

Aerial maps at a scale of one inch equals 200 feet were provided during the in-person public meeting and were available to download on the Project website. Features on maps included existing infrastructure and identified those portions of the 46-kV transmission line to be rebuilt. Public meeting participants were encouraged to identify locations of their houses, places of business, properties of concern, or other sensitive resources on maps and submit comments. Comments received through the open house were digitized and entered into a GIS database.

The Project website includes updates and news releases, an interactive map, fact sheet information, and Project timeline. In addition to the comments submitted through the virtual open house, questions and comments were also solicited on the website's contact page.

A total of 40 landowner comments were received through the Project website, by email, telephone, or comment card. Comments were entered into the Project public comment database and generally related to existing easement rights and planned land use development.

4.2 Consideration of Public and Stakeholder Input

Using public and stakeholder input, updated mapping, and additional field inspections, Study Segments were evaluated and refined to avoid or minimize impacts to resources within the Study Area. As a result, some Study Segments were removed, added, and modified. Adjusted Study Segments are shown in **Attachment E, Map 3**.

Most of the landowner feedback was received for Study Segments 3, 4, and 15. Landowner comments included documentation of existing encroachments, planned property development intersecting the Project, and concerns related to new ROW easements. Additionally, after more detailed engineering reviews were completed, Study Segments 3 and 15 appeared to present several terrain and structure placement challenges. As a result of important landowner input and

feedback, along with additional engineering considerations, Study Segments 3, 4, and 15 were dismissed from further review.

5.0 STUDY SEGMENT COMPARISON

Because Study Segments 3, 4, and 15 were dismissed, there were no alternatives for Study Segments 1, 2, and 5. Therefore, these remaining Study Segments are included as part of the Proposed Route. The Siting Team created two Study Segment Focus Areas to help identify a final Proposed Route. These comparison areas are shown in **Attachment E, Map 4.**

5.1 Focus Area 1

Focus Area 1 includes Comparison A (Study Segments 7 and 8) and Comparison B (Study Segments 6 and 9). Focus Area 1 was identified north of Study Segment 1 leaving Prestonsburg Substation. The presence of the Paintsville-Prestonsburg-Combs Field Airport created two alternatives: Comparison A travels north to the west of the airport utilizing the surrounding ridgelines and entering the existing Kenwood Substation from the west. Comparison B uses the existing centerline to enter and exit Kenwood Substation to the east. Comparison B avoids the airport by traveling to the east, crossing the Levisa Fork and Kentucky State Route 3 once before angling to the west to loop in and back out of Kenwood Substation.

Comparison A contains fewer residences within 500 feet of the centerline; however, it crosses more parcels and landowners within the ROW. Comparison A also requires more tree clearing, and there are more steep slopes due to the terrain. There were also concerns about entering Kenwood Substation from directly west; slope stability and structure placement was not ideal from an engineering perspective. Comparison B avoids the airport by spanning to the east and fewer landowners and parcels are crossed. Study Segment 3 also crosses fewer steep slopes and spans over flatter topography. While there are more residences within 500 feet of the centerline, none are within 100 feet of the centerline. Due to engineering concerns and the ability to mitigate impacts to residents within 500 feet of the centerline, the Siting Team selected Comparison B (Study Segments 3 and 4) for Focus Area 1.

5.2 Focus Area 2

Focus Area 2 includes Comparison A (Study Segments 13 and 16) and Comparison B (Study Segments 12 and 14). The comparison area was identified north of Study Segment 5 heading towards Thelma Substation. The presence of residential communities, the Paintsville Golf Course, and the Levisa Fork created two alternatives: Comparison A travels north to the west of identified impacts, utilizing the existing transmission line ROW and enters the existing Thelma Substation from the west, crossing the Levisa Fork once. Comparison B avoids impacts by traveling to the

east of the Levisa Fork and Paintsville Golf Course, paralleling an the existing EKPC transmission line corridor for approximately one mile before entering the existing Prestonsburg Substation from the east.

Comparison A avoids the Paintsville Golf Course; however, two river crossings are necessary, and this study segment utilizes the existing ROW that runs through a residential community with approximately 100 residences within 500 feet of the centerline. There are currently multiple structures impacting the community and additional visual impacts throughout the neighborhood due to the existing conductor sway zone. Comparison A also crosses more steep slopes, and structures would be required in an area with a documented history of slides and earthwork. Comparison B avoids the neighborhood, golf course, and river crossings by spanning to the east. It also affects fewer landowners and crosses fewer parcels. Comparison B also crosses fewer steep slopes and spans over mostly undeveloped parcels that would require more tree clearing. Due to slope stability concerns and impacts to the residential community to build within existing ROW, the Siting Team selected Comparison B for Focus Area 2.

6.0 PROPOSED ROUTE EVALUATION

The Proposed Route and a quantitative and qualitative analysis of potential impacts to local communities, the environment, and cultural resources are discussed below. The Proposed Route was reviewed in detail and compared using a combination of information collected in the field, GIS data sources, public input, supporting documents, and the Siting Team's collective knowledge and experience. Considerations for the Proposed Route is presented in **Table 1. Project Evaluation Criteria.**

6.1 Natural Environment

Natural resource impacts include potential impacts to vegetation and habitat, surface waters, threatened and endangered species, and conservation and recreation lands. Potential impacts discussed here are based on publicly available maps and data as well as consultation with federal, state, and local agencies.

The Proposed Route traverses forested terrain and requires approximately 144 acres of tree clearing. The Proposed Route also crosses approximately three acres of pasture and unique farmland soil, and approximately five acres of farmland of statewide importance is in the Proposed Route ROW. In a letter dated January 31, 2023, The USDA NRCS stated that NRCS "is concerned with potential impacts that projects might have upon prime farmland soils, farmlands of statewide importance, PL-566 watershed structures, wetlands identified under the Food Security Act, Wetland Reserve Program (WRP/WRE) and Grassland Reserve Program easements".

The Proposed Route will require additional permitting and mitigation along with agency coordination. The Proposed Route has approximately 10 acres of FEMA-designated floodplains which are crossed by the ROW. Structure placements will require additional planning to avoid these areas of risk. The Levisa Fork, a Section 10 river, is crossed by the Project leaving Prestonsburg Substation to the west, once along the Proposed Route heading north into Kenwood Substation, and lastly entering Thelma Substation from the east. While the existing transmission line crosses the Levisa Fork several times, new ROW and additional permitting will be needed for the Proposed Route.

The Proposed Route crosses forested terrain comprised of farming land and dense forested areas that could provide a suitable habitat for various species. A USFWS Information for Planning and Consultation project planning tool identified the potential for the endangered Indiana bat (*Myotis sodalis*), threatened northern long-eared bat (*Myotis septentrionalis*), and endangered Gray bat (*Myotis grisescens*) to occur within the Project Area. No critical habitat areas were identified in the USFWS databases.

Overall, the Proposed Route will minimize potential impacts to the natural environment by primarily spanning ridgelines and paralleling the existing EKPC transmission. The responses received from federal and state agencies are included in **Attachment D**. Coordination and additional review with applicable federal and state organizations will be conducted during the Project's environmental studies.

6.2 Human Environment

The human environment includes how the land is used and activities at given locations such as agricultural, forestry, residential, industrial, mining, commercial, institutional, scenic assets, and recreational uses.

The Study Area is mountainous and requires long spans over residential roadways and rivers located in the valleys between peaks. Long spans frequently have wider conductor sway areas than the standard transmission line ROW, and it is AEP's policy to review and determine on a case-by-case basis whether structures may remain in the conductor sway area. It is preferred not to have habitable structures within the conductor sway zone of any transmission line. The Proposed Route minimizes habitable structures within the ROW and conductor sway zones to the greatest extent, is in a less developed part of the Study Area, allows for greater flexibility in structure placement and access road location and limits impacts to recreational resources.

The existing transmission line contains structures located near several congested road crossings and residential encroachments; the Proposed Route would minimize effects on the human

environment by rebuilding away from these existing residential communities. Rebuilding within a less developed area reduces visual impacts to the residential community and allows for more flexibility in engineering, landowner negotiations, and access road location. Exact structure placement for the Proposed Route is more restricted by residential development and will be considered during the engineering phase of development. The Proposed Route crosses two mining areas in the Study Area, which will require additional coordination with the mining companies.

6.3 Environmental Justice

It is the Company's long-standing practice in its route development processes to avoid or reasonably minimize impacts to the human environment, which includes environmental justice (EJ) communities and fence line communities within the meaning of the Kentucky Energy and Environment Cabinet (KYEEC) EJ mission statement. "Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies" (KYEEC 2023).

The Siting Team reviewed the United States Environmental Protection Agency's EJSCREEN (2023) tool and data from the American Community Survey from the United States Census Bureau. The EJSCREEN and Census Block Group (CBG) data (the smallest geographic unit for which United States Census Bureau demographic data is available) was used to review the Project in the context of EJ. Per the available EJSCREEN and American Community Survey data, there are 19 CBGs located within one mile of the Project, nine of which are crossed by the Project. Results of the dataset and the CBGs identified within one mile of the Project are depicted in **Attachment F – Environmental Justice Communities**. Of the 19 CBGs located within one mile of the Proposed Route, nine meet or exceed the threshold of at least one "EJ community" as defined by the United States Environmental Protection Agency's EJSCREEN (2023) tool and data from the American Community Survey from the United States Census Bureau, namely low-income communities and are crossed by the Project.

The Project is not anticipated to have a disproportionately high or adverse impact on EJ communities as defined by the Environmental Protection Agency. The Proposed Route crosses through EJ communities found throughout the region and the existing ROW; avoiding them completely within the Study Area was not possible. As discussed in Section 4.0, Kentucky Power mailed notifications to 412 landowners who are within 1,000 feet of a Study Segment (500 feet

on either side) announcing the Project and inviting the public to provide feedback at virtual and in-person open houses, via the website, or by telephone. All landowner input received was reviewed by the Siting Team and, where feasible, Study Segments were adjusted to minimize impacts. The Company will continue to engage all affected landowners, including EJ communities as defined in the Environmental Protection Agency, throughout the duration of the Project.

6.4 Utilities and Constructability

Constructability is the ability to efficiently and cost effectively engineer, acquire ROW, construct, operate, and maintain the proposed transmission line. Major factors include safety, steep topography, condensed ROWs, heavy angles, access, ability to parallel or use existing ROWs, features, proximity to major highways, etc.

Due to the surrounding terrain, structure placements, and areas at risk of earthwork, the Proposed Route requires some angles that are greater than 20 degrees to span across ridgetops and avoidance areas. Hard angles are common in the Study Area due to steep, mountainous terrain and are feasible to construct.

The Proposed Route crosses state highways and local roads in less developed parts of Floyd and Johnson counties. In a letter dated January 30, 2023, The Kentucky Transportation Cabinet (KYTC) notified the Siting Team of five active KYTC projects within the Study Area. None of the listed planned transportation projects are anticipated to affect the Proposed Route; However, additional coordination with KYTC will be required during the Project's permitting and construction phases.

The Proposed Route has oil and gas wells within 250 feet from edge of the ROW, but none are located within the ROW of the Proposed Route. The Proposed Route requires crossings of a CSX Transportation Railroad; ROW conversation and coordination with CSX Transportation will be required to obtain new ROW for the Proposed Route

The Proposed Route also contains the Paintsville-Prestonsburg-Combs Field Airport within one mile of the ROW. The Paintsville-Prestonsburg-Combs Field Airport is categorized as a Private Airport by State Zoning Regulation, but per the FAA Notice Criteria Tool, there is no requirement to file with the FAA for the Project. The Siting Team held two phone conversations with the Kentucky Department of Aviation Zoning Commission Administrator and received a formal approval of application for the Project on June 15, 2023. Additional coordination with the FAA will be conducted as applicable during the Project's construction and permitting phases.

The Proposed Route parallels approximately one mile of existing EKPC transmission line and would therefore require less ROW tree clearing in that section as well as fewer access roads to be constructed. Coordination with EKPC will be required.

Table 1. Project Evaluation Criteria		
Criteria	**Unit**	**Proposed Route**
Length	miles	12.9
Farmland of statewide importance[1] in the ROW (SSURGO)	acres[2]	5.6
Total streams crossed (NHD)	count	16
Approximate tree clearing required in the proposed 100’ ROW (digitized based on aerial imagery)	acres	144.6
FEMA-designated floodplain crossed by ROW	acres	9.7
Section 10 rivers crossed	count	1
Number of parcels[3] crossed by ROW	count	93
Unique landowners[4] within ROW	count	88
Residences/single-family dwellings within ROW	count	0
Residences/single-family dwellings within 100 feet of centerline	count	1
Residences/single-family dwellings within 250 feet of centerline	count	28
Residences/single-family dwellings within 500 feet of centerline	count	110
Businesses/commercial buildings within 250 feet of centerline	count	1
Designated places of worship within 500 feet of centerline	count	1
Schools within 1,000 feet of centerline	count	1
Cemeteries within 250 feet of centerline	count	2
Mining areas crossed	count	1
National Register of Historic Places- (NRHP-) listed sites within one mile of centerline	count	9
State highways crossed	count	9
Local roads and streets crossed	count	4

Table 1. Project Evaluation Criteria		
Criteria	**Unit**	**Proposed Route**
Oil and gas wells within 250 feet from edge of ROW	count	4
Steep slopes crossed by ROW (>20%), percent of total length	acreage	132.7
Railroads crossed	count	3
Total length rebuilt on centerline	**miles**	**0.4**
Total length parallel to existing transmission line[5]	**miles**	**0.8**

Notes: SSURGO = NRCS' Soil Survey Geographic Database.

[1] Soils that do not meet the prime farmland category but are still recognized by states for their productivity may qualify as soils of statewide importance (based on USDA-NRCS SSURGO data).

[2] Acreage calculations presented in the table assume a 100-foot-wide ROW.

[3] The number of parcels crossed refers to the number of individual plots of owned land recorded by Floyd and Johnson counties.

[4] The number of landowners within the ROW represents the number of individual landowners, who each may own one or more parcels, including the Company.

[5] East Kentucky Power Cooperative 69-kV Transmission Line

7.0 PROPOSED ROUTE

After extensive data gathering, route development, and a comparative analysis process, the Siting Team identified a combination of the Study Segment route comparison sections and Study Segments 1 and 5 as the Proposed Route (**Attachment E, Map 4**). The Siting Team considers the Proposed Route as the best alternative to minimize impacts. The Proposed Route avoids slide prone areas throughout the focus areas, minimizes impacts to the Prestonsburg Combs Field Airport on constructible terrain, and eliminates impacts to the neighborhood north of Mayo Trail Substation that is currently impacted by the existing transmission line. The Proposed Route also utilizes existing opportunities when feasible such as paralleling U.S. Highway 460 to the west and parallels the existing EKPC transmission line to the east of the Study Area. Rationale for selecting the Proposed Route is derived from an accumulation of siting decisions made throughout the process, the Siting Team's knowledge and experience, public and regulatory agency comments, and the comparative analysis of potential impacts presented above.

The Siting Team concluded that building in new ROW was the most suitable location. Most new environmental impacts associated with the Proposed Route are minimal and generally limited to temporary construction related impacts that will be mitigated with proper stormwater controls, traffic control, and active public communication. Visually, proposed structures along the Proposed Route will be approximately 25 feet taller than those on the existing line and similar in terms of their number and overall visual character.

The Proposed Route (Study Segments 1, 2, 5, 6, 9, 10, 11, 12, 14, and 17) will be rebuilt mostly within new ROW. From the existing Prestonsburg Substation, the route crosses the existing centerline to the north to avoid a slide prone area and poor terrain before crossing Kentucky State Route 1428 until it meets the ridgeline to the north. The Proposed Route then spans to the northeast for approximately three miles following the ridgeline and avoiding public road crossings and encroachments into the conductor sway area. After crossing Kentucky State Highway 3, the Proposed Route angles to the northwest to span the ridgeline and avoid Highlands ARH Regional Medical Center. The Proposed Route then crosses Kentucky State Route 321 to the west of Paintsville-Prestonsburg-Combs Field Airport and continues north for approximately two miles before entering and exiting the existing Kenwood Substation to the west. Leaving the Kenwood Substation, the Proposed Route then angles to the northeast for approximately two miles, crosses Kentucky State Highway 40, then angles north paralleling the existing EKPC transmission line corridor for approximately one mile before entering the existing Thelma Substation from the east.

The Proposed Route is in Floyd and Johnson counties, Kentucky and begins at the Company's Prestonsburg Substation on Webb Lane. The Proposed Route is approximately 12.5 miles long between the Prestonsburg, Kenwood, and Thelma Substations and requires new ROW for approximately 12 miles (about 96 percent of its total length). Establishing this new ROW minimizes impacts to the natural and human environments and reduces constructability challenges in a Project area with steep mountainous terrain. The Proposed Route crosses 98 parcels and 88 unique landowners within the ROW. No residences are located within the proposed ROW.

Ultimate structure types will be determined during final engineering, which includes ground surveys and geotechnical studies. Based on preliminary engineering, the Company anticipates primarily using galvanized steel H-frame structures with a low-reflective finish. Anticipated structure heights are approximately 85 feet tall.

Collectively, the Siting Team determined that the Proposed Route meets the goal of minimizing impacts on land use and natural and cultural resources, while avoiding circuitous routes, higher costs, and non-standard design requirements (**Attachment E, Map 3,** and **Attachment F**).

8.0 SITING OUTCOME ADDENDUM (*March 2025*)

The following Siting Outcome Addendum provides an update to the Siting Team's selection of the Proposed Route (Initial Route) (**Attachment H, Map 1**) as a result of the Project being placed on hold after the Initial Route was announced publicly in May 2023. While the Project was placed on hold, the Outreach team received additional comments from a landowner concerning the Initial Route. Due to a one-year delay of the Project, additional siting and public involvement activities were deemed necessary when the Project resumed in June 2024.

8.1 Additional Siting Activities

Once the Project resumed, the Siting Team gathered updated constraints and county parcel data to review the previous routing and consider the additional landowner comments concerning a flat portion of potentially developable land off of Cliff Road in a clustered residential area. The landowner noted that flat developable land is limited within the city of Prestonsburg.

After reviewing the updated constraints and county parcel data, the Siting Team identified a new alternative route (Western Alternative Route) to review (**Attachment H, Map 1**). The Western Alternative Route is further away from the developable land and clustered residential development and relocates onto more favorable terrain that is not prone to landslides (**Attachment H, Map 1**). The Western Alternative Route branches off of Study Segment 1, then travels north and northeast, crossing undeveloped forested land, before connecting to Study Segment 5 and the remainder of the previously selected Initial Route.

The Western Alternative Route and the Initial Route were then reviewed by the Siting Team during a field reconnaissance.

8.2 Additional Public Involvement

Following the field reconnaissance, the Project was reannounced publicly with a virtual open house website on September 6, 2024. A mailing packet including a cover letter, updated Project fact sheet, comment card, and pre-paid postage return envelope was sent to 183 landowners within a 1,000-foot corridor (500 feet on either side of a route centerline) of the Project to notify them of the virtual open house.

An additional 200 postcards were hand-delivered by a Company ROW representative to rental communities within the notification corridor whose mailing addresses were not accessible via the county parcel data. The postcards included Project announcement information and encouraged landowners to visit the virtual open house website and submit any comments related to the Project.

The virtual open house website included an updated interactive map showing the previously selected Initial Route and new Western Alternative Route, updated detailed aerial maps, an updated schedule, an updated fact sheet, and an updated AEP outreach contact.

A total of 22 landowner comments were received through the Project's website, by email, telephone, or comment card. Comments were entered into the Project database and generally related to planned land use development, property history, relation of the routes' location to landowner properties, and updates to property boundaries. Neither of the routes were dismissed or revised based on landowner feedback from the open house and both were carried forward for further route analysis.

8.3 Route Evaluation

The Initial Route and Western Alternative Route were compared through a qualitative and quantitative analysis of potential impacts to local communities and the natural and human environments while considering engineering constructability (**Table 2. Project Evaluation Criteria)**.

Table 2. Project Evaluation Criteria

Criteria	Unit	Initial Route	Western Alternative Route
Length	miles	12.9	12.9
Farmland of statewide importance[1] in the ROW (SSURGO)	acres[2]	5.6	3.4
Total streams crossed (NHD)	count	16	15
Approximate tree clearing required in the proposed 100-foot ROW (digitized based on aerial imagery)	acres	144.6	145.3
FEMA-designated floodplain crossed by ROW	acres	9.7	9.7
Section 10 rivers crossed	count	1	1
Number of parcels[3] crossed by ROW	count	93	91
Landowners within ROW	count	78	79
Barns, outbuildings, sheds, garages, and silos in the ROW	count	1	1
Residences/single-family dwellings within ROW	count	0	0
Residences/single-family dwellings within 100 feet of centerline	count	1	1

Table 2. Project Evaluation Criteria			
Criteria	**Unit**	**Initial Route**	**Western Alternative Route**
Residences/single-family dwellings within 250 feet of centerline	count	28	25
Residences/single-family dwellings within 500 feet of centerline	count	110	103
Businesses/commercial buildings within 250 feet of centerline	count	1	1
Designated places of worship within 500 feet of centerline	count	1	1
Schools within 1,000 feet of centerline	count	1	1
Cemeteries within 250 feet of centerline	count	2	2
Mining areas crossed	count	1	1
National Register of Historic Places- (NRHP-) listed sites within one mile of centerline	count	9	9
State highways crossed	count	9	9
Local roads and streets crossed	count	4	4
Oil and gas wells within 250 feet from edge of ROW	count	4	3
Steep slopes crossed by ROW (greater than 20%), percent of total length	acreage	132.7	131.9
Heavy angles, greater than 30%	count	16	15
Railroads crossed	count	3	3
Airports within one mile of centerline	count	1	1
NRHP-listed sites within one mile of centerline	count	9	9
Historic districts within one mile of centerline	count	1	1
Total length rebuilt on centerline	**miles**	**0.4**	**0.4**
Total length parallel to existing transmission line[4]	**miles**	**0.8**	**0.8**

Notes: SSURGO = NRCS' Soil Survey Geographic Database.

[1] Soils that do not meet the prime farmland category but are still recognized by states for their productivity may qualify as soils of statewide importance (based on USDA-NRCS SSURGO data).

[2] Acreage calculations presented in the table assume a 100-foot-wide ROW.

[3]The number of parcels crossed refers to the number of individual plots of owned land recorded by Floyd and Johnson counties.

[4]East Kentucky Power Cooperative 69-kV Transmission Line.

The Initial Route is slightly longer in length at 12.96 miles and requires 157.1 acres of ROW compared to the Western Alternative Route which is 12.91 miles in length and requires 156.6 acres of ROW. Similarly, the Initial Route contains more residences or single-family dwellings within 250 and 500 feet of centerline at 28 and 110, respectively. The Western Alternative Route contains 25 and 103 residences or single-family dwellings within 250 and 500 feet of its centerline, respectively. The Western Alternative Route crosses one more landowner within the ROW than the Initial Route, though it crosses two fewer parcels.

The Western Alternative Route will require more tree clearing in the ROW at 145.3 acres compared to the Initial Route which will require 144.64 acres; however, the Western Proposed Route has one less stream crossing and less Federal Emergency Management Agency-designated floodplain crossed by the ROW. Both routes cross one Section 10 Waterway, the Levisa Fork, upon exiting the Prestonsburg Substation to the west.

The Initial Route crosses more steep slopes by the ROW and has more heavy angles greater than 30% at 132.7 acres and 16, respectively, compared to the Western Alternative Route which crosses 131.92 acres of steep slopes and has 15 heavy angles. Both routes parallel an existing East Kentucky Power Cooperative 69-kV transmission line for approximately 0.9 miles and will rebuild approximately 0.4 mile of existing 46-kV transmission line exiting the Kenwood Substation.

Values for remaining criteria were either similar or the same for both routes since they differ minimally for approximately 2.2 miles near the Cliff Road crossing. Both routes cross the Levisa Fork, contain one outbuilding within the ROW, have one designated place of worship within 1,000 feet of centerline, have one school within 1,000 feet of centerline, have two cemeteries within 250 feet of centerline, cross three railroads, contain one airport within one mile of centerline, contain nine NRHP-listed sites within one mile of centerline, and contain one historic district within one mile of centerline.

8.4 The Proposed Route

The Siting Team selected the Western Alternative Route as the Proposed Route following a virtual Route Selection Meeting held on February 3, 2025, in which feedback was solicited from a multidisciplinary team with expertise in siting and land use, ROW, outreach, transmission line engineering, geotechnical engineering, constructability, environmental impacts, and project management. The Proposed Route was publicly announced on February 17, 2025, and updated on the Project website.

The Western Alternative Route poses less constructability risks than the Initial Route by crossing through more accessible terrain that is not prone to landslides and exhibits more stable geology.

Additionally, the Western Alternative Route will have decreased land use and visual impacts by crossing through undeveloped forested land further away from residences along Cliff Road. Additional due diligence for the Western Alternative Route reveals that preliminary structure locations can be safely accessed due to crossing through more favorable terrain not prone to landslides.

Collectively, the Siting Team determined that the Western Alternative Route would minimize land use impacts by relocating further away from congested development and residences along Cliff Road, cross more favorable and accessible terrain, avoid areas that are prone to landslides and exhibit unstable geology, avoid crossing jurisdictional streams, and minimize visual impacts to the surrounding community. The Proposed Route map is included as **Attachment H, Map 2**.

9.0 SITING OUTCOME ADDENDUM (*October 2025*)

The following Siting Outcome Addendum provides an update to the Siting Team's selection of the March 2025 Western Alternative Route as the proposed route (**Attachment H, Map 2**). In April 2025, environmental surveys for the Western Alternative Route were conducted and identified new cultural resources within the proposed ROW. Additional siting activities were deemed necessary to avoid impacts to these newly identified cultural resources.

9.1 Additional Siting Activities

In order to avoid the newly identified cultural resources, the Siting Team developed four new alternative routes: Option 1, 2, 3, and 4 located near the existing Kenwood Substation (**Attachment I, Map 1**). To minimize disturbance in the area, the alternative routes are located to the west of the cultural resources and cross favorable terrain, existing industrial land use, and lower density residential development. New alternative routes were not identified to the east of the cultural resources due to clustered residential development in the Van Lear community. Options 1, 2, 3, and 4 all share the same alignment except for the area between Kenwood Substation and a point north of KY-302.

Options 1 and 2 both exit from Kenwood Substation to the east before turning northwest to offer two options to cross KY-302 further west of the March 2025 Western Alternative Route. Option 1 crosses KY-302 closest to the March 2025 Western Alternative Route while Option 2 crosses further west, closer to KY-1107 and the Levisa Fork. Options 3 and 4 exit Kenwood Substation to the west before traveling north to cross the Levisa Fork and KY-321. Options 3 and 4 continue either north or northeast to follow the same two KY-302 crossing locations as Options 1 and 2 (**Attachment I, Map 1**).

After Options 1 through 4 were identified, additional environmental surveys were conducted (May to September 2025) along the alternative route options to confirm the absence of additional unmarked cultural resources within the routes' ROWs, along potential structure locations, and along potential access roads. Several new cultural resources were identified near Options 2 and 4 and these alternatives were adjusted to avoid the cultural resources. Following these revisions, Options 1 through 4 were carried forward for further analysis.

9.2 Route Evaluation

Options 1 through 4 were compared through a qualitative and quantitative analysis of potential impacts to local communities and the natural and human environments while considering engineering constructability (**Table 3. Project Evaluation Criteria)**. All quantities were calculated based on end-to-end alignments for each option from Prestonsburg Substation to Thelma Substation.

Table 3. Project Evaluation Criteria					
Criteria	**Unit**	**Option 1**	**Option 2**	**Option 3**	**Option 4**
General					
Length	miles	13.1	13.7	12.9	12.9
Farmland of statewide importance[1] in the ROW (SSURGO)	acres[2]	3.7	5.6	4.9	3.7
Total streams crossed (NHD)	count	10	10	10	10
Approximate tree clearing required in the proposed 100-foot ROW (digitized based on aerial imagery)	acres	145.9	153.0	142.4	141.5
FEMA-designated floodplain crossed by ROW	acres	13.9	13.9	17.5	17.1
Section 10 rivers crossed	count	1	1	1	1
Number of parcels[3] crossed by ROW	count	75	80	78	82
Landowners within ROW	count	72	77	74	77
Barns, outbuildings, sheds, garages, and silos in the ROW	count	1	0	1	0
Residences/single-family dwellings within ROW	count	1	0	1	0

Table 3. Project Evaluation Criteria					
Criteria	**Unit**	**Option 1**	**Option 2**	**Option 3**	**Option 4**
Residences/single-family dwellings within 100 feet of centerline	count	3	1	3	1
Residences/single-family dwellings within 250 feet of centerline	count	28	25	29	24
Residences/single-family dwellings within 500 feet of centerline	count	104	102	105	104
Businesses/commercial buildings within 250 feet of centerline	count	1	1	1	1
Designated places of worship within 1,000 feet of centerline	count	2	2	2	2
Schools within 1,000 feet of centerline	count	1	1	2	2
Cemeteries within 250 feet of centerline	count	4	4	8	8
Mining areas crossed	count	1	1	1	1
State highways crossed	count	9	9	9	8
Local roads and streets crossed	count	4	4	6	6
Oil and gas wells within 250 feet from edge of ROW	count	3	3	3	3

Table 3. Project Evaluation Criteria					
Criteria	**Unit**	**Option 1**	**Option 2**	**Option 3**	**Option 4**
Steep slopes crossed by ROW (greater than 20%), percent of total length	acreage	103.2	107.9	96.7	96.5
Heavy angles, greater than 30%	count	20	20	23	19
Railroads crossed	count	5	5	7	7
Airports within one mile of centerline	count	1	1	1	1
NRHP-listed sites within one mile of centerline	count	4	4	4	4
Historic districts within one mile of centerline	count	0	0	0	0
Total length rebuilt on centerline	**miles**	**0.4**	**0.4**	**0**	**0.4**
Total length parallel to existing transmission line[4]	**miles**	**0.8**	**0.8**	**0.8**	**0.8**

Notes: SSURGO = NRCS' Soil Survey Geographic Database.

[1] Soils that do not meet the prime farmland category but are still recognized by states for their productivity may qualify as soils of statewide importance (based on USDA-NRCS SSURGO data).

[2] Acreage calculations presented in the table assume a 100-foot-wide ROW.

[3]The number of parcels crossed refers to the number of individual plots of owned land recorded by Floyd and Johnson Counties.

[4]East Kentucky Power Cooperative 69-kV Transmission Line.

Options 3 and 4 are the shortest in length at 12.9 miles each and require the least acreage of ROW, 157.1 and 156.7 acres, compared to Options 1 and 2 which require 158.6 and 166.4 acres respectively. Options 1 and 3 are the only routes that contain one outbuilding and one residence each within their ROW compared to Options 2 and 4. Similarly, Options 1 and 3 contain more residences or single-family dwellings within 100, 250, and 500 feet of their centerlines compared to Options 2 and 4. Option 4 crosses the most parcels, 82, compared to the other route options. Options 2 and 4 contain the most landowners within the ROW, 77 each, compared to Options 1 and 3, which contain 72 and 74 landowners within their respective ROWs.

Options 1 and 2 require the most tree clearing in their ROW, 145.9 and 152.9 acres, compared to Options 3 and 4 which require 142.4 and 141.5 acres of tree clearing in their ROW. All options share the same number of stream and Levisa Fork crossings. Options 3 and 4 cross more Federal Emergency Management Agency-designated floodplain in their ROW, 17.5 and 17.1 acres, compared to Options 1 and 2 which cross 13.9 acres of floodplain each within their ROW.

Option 4 crosses the least steep slopes by the ROW, 96.4 acres, and has the fewest number of both heavy angles greater than 30%, 19 angles, and angles greater than 20 degrees, 24, compared to Options 1 through 3. All of the route options parallel an existing East Kentucky Power Cooperative 69-kV transmission line for approximately 0.8 miles. Options 1, 2, and 4 rebuild at least 0.4 mile of existing 46-kV transmission line compared to Option 3 which does not rebuild any existing transmission line.

Values for remaining criteria were either similar or the same for all four route options since they differ minimally for approximately two miles near the Kenwood Substation and KY-302 crossing.

9.3 The Proposed Route

The Siting Team selected Option 4 as the Proposed Route based on the evaluation criteria discussed in Section 9.2, additional field surveys, and route comparison discussions with the Siting Team. The Siting Team held numerous virtual meetings to compare Options 1 through 4 and solicit feedback from a multidisciplinary team with expertise in siting and land use, ROW, outreach, transmission line engineering, geotechnical engineering, constructability, environmental impacts, and project management.

Option 4 mitigates land use impacts by crossing KY-302 at an alternate location to the west and further away from residences and denser development along the KY-302. Option 4 is the shortest in length, requires the least acreage of new ROW, and requires the least acreage of tree clearing in the ROW which further mitigates overall land use impacts.

By exiting Kenwood Substation to the west, Option 4 reduces constructability risks by crossing more favorable terrain with the least steep slopes. Additionally, Option 4 has the least overall

number of heavy angles. Existing access roads along this route can be utilized for construction and will reduce new impacts to the environment and community.

Additional due diligence and field surveys completed by the Siting Team confirm that Option 4 avoids impacts to newly identified cultural resources in the area. The Company will continue to monitor these cultural resources and coordinate with the Kentucky State Historic Preservation Office throughout permitting and construction to ensure that they are not impacted.

Collectively, the Siting Team determined that Option 4 would minimize land use impacts by reducing the length of line, reducing the amount of tree clearing required, crossing compatible industrial land use, relocating further away from residences along KY-302, crossing more favorable terrain, utilizing existing access roads for construction, and avoiding newly identified cultural resources in the area. The Proposed Route map is included as **Attachment I, Map 2**.

9.4 Additional Public Involvement

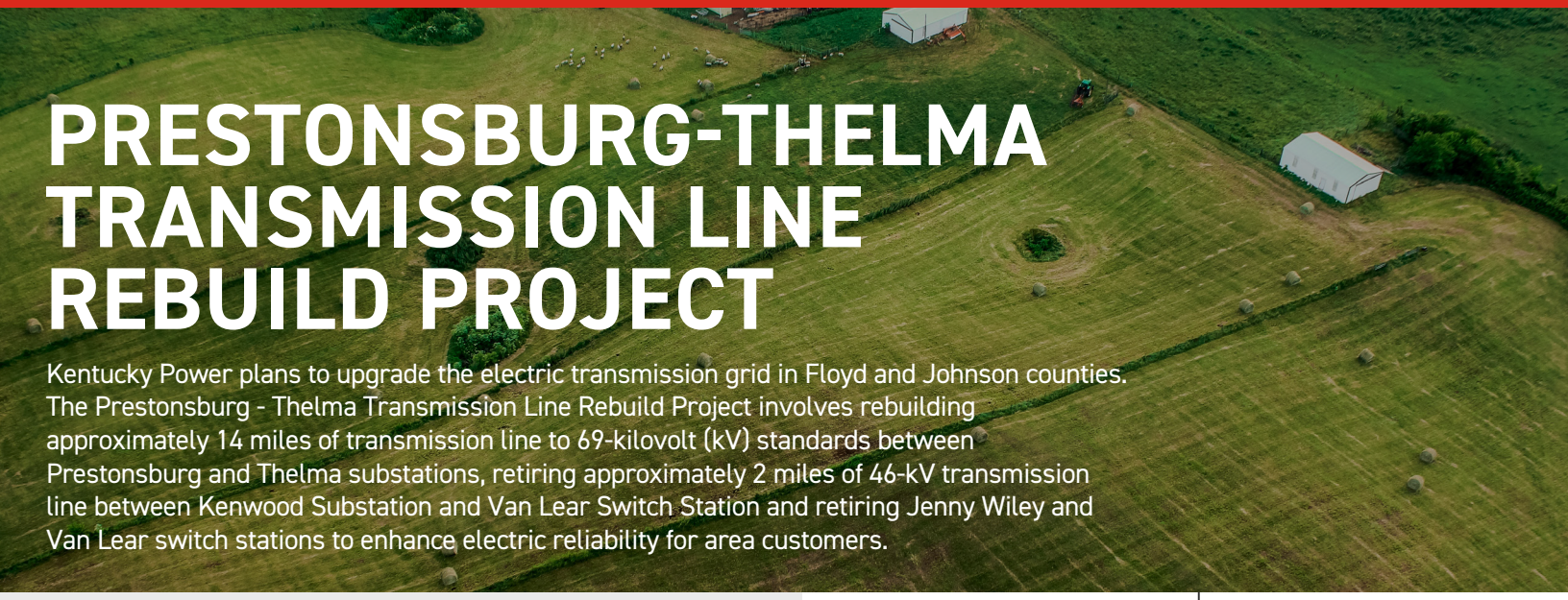
The public was notified of the updated Option 4, Proposed Route with a virtual open house website on November 17, 2025. A mailing packet including a cover letter, updated Project fact sheet, comment card, and pre-paid postage return envelope was sent to 199 landowners within a 1,000-foot corridor (500 feet on either side of a route centerline) of the Project to notify them of the virtual open house and updated Proposed Route.

The virtual open house website included an updated interactive map showing the updated Proposed Route with the Option 4 alignment, updated detailed aerial maps, an updated schedule, and an updated fact sheet.

The Company will continue to work with landowners as comments are received from the November 17, 2025, virtual open house.

Attachment A: Outreach Fact Sheet

KENTUCKY POWER
An AEP Company
BOUNDLESS ENERGY™



PRESTONSBURG-THELMA TRANSMISSION LINE REBUILD PROJECT

Kentucky Power plans to upgrade the electric transmission grid in Floyd and Johnson counties. The Prestonsburg - Thelma Transmission Line Rebuild Project involves rebuilding approximately 14 miles of transmission line to 69-kilovolt (kV) standards between Prestonsburg and Thelma substations, retiring approximately 2 miles of 46-kV transmission line between Kenwood Substation and Van Lear Switch Station and retiring Jenny Wiley and Van Lear switch stations to enhance electric reliability for area customers.

WHAT

The project involves:

- Rebuilding approximately 14 miles of transmission line to 69-kV standards between Prestonsburg and Thelma substations
- Retiring approximately 2 miles of 46-kV transmission line between Kenwood Substation and Van Lear Switch Station
- Retiring Jenny Wiley Switch Station
- Retiring Van Lear Switch Station

The project team is seeking community input on route options to rebuild the transmission line.

This project involves filing an application with the Kentucky Public Service Commission (PSC).

WHY

The existing transmission line has experienced multiple power outages in recent years due to lightning and other causes. Currently, the customers served from the Kenwood Substation may experience longer restoration time when the transmission line experiences an outage.

AEP and PJM, the regional transmission organization that monitors the electric transmission grid in our region, have identified additional needs for the upgrades. The proposed upgrades will mitigate identified reliability criteria violations and strengthens the transmission system to increase electric reliability for the area customers.

The proposed upgrades:

- Allow crews to rebuild the line in a more suitable location. The existing line has no road access and is in mountainous terrain. Walking is the only way to access many of the structures
- Allow crews to replace aging wooden structures with modern steel structures
- Allow crews to add modern equipment that protects the line from lightning strikes

WHERE

The project begins at the Prestonsburg Substation on Webb Lane in Prestonsburg and continues north to Thelma Substation in Thelma along Kentucky 1107.

2022

PROJECT ANNOUNCEMENT & OPEN HOUSE
November 2022

RIGHT-OF-WAY COMMUNICATIONS BEGIN
Early 2023

2023

KENTUCKY POWER BECOMES LIBERTY
January 2023

PROPOSED ROUTE
February 2023

2024

FILE APPLICATION WITH THE KENTUCKY PSC*
March 2024

ANTICIPATED APPROVAL FROM THE KENTUCKY PSC
Fall 2024

2025

CONSTRUCTION BEGINS
August 2025

2026

PROJECT IN SERVICE
End of 2026

2027

*PSC: Public Service Commission
**Timeline subject to change.

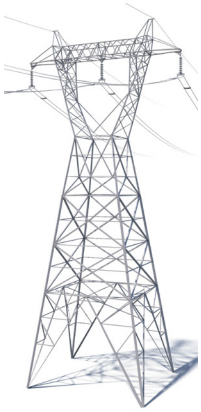
TYPICAL STRUCTURES

Crews plan to install steel H-frame, lattice tower and three-pole structures along the line route.

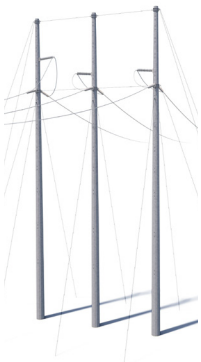
Typical Structure Height: Approximately 80-100 feet*
Typical Right-of-Way Width: Approximately 100 feet*

*PRIMARY STRUCTURE TO BE USED

H-FRAME*

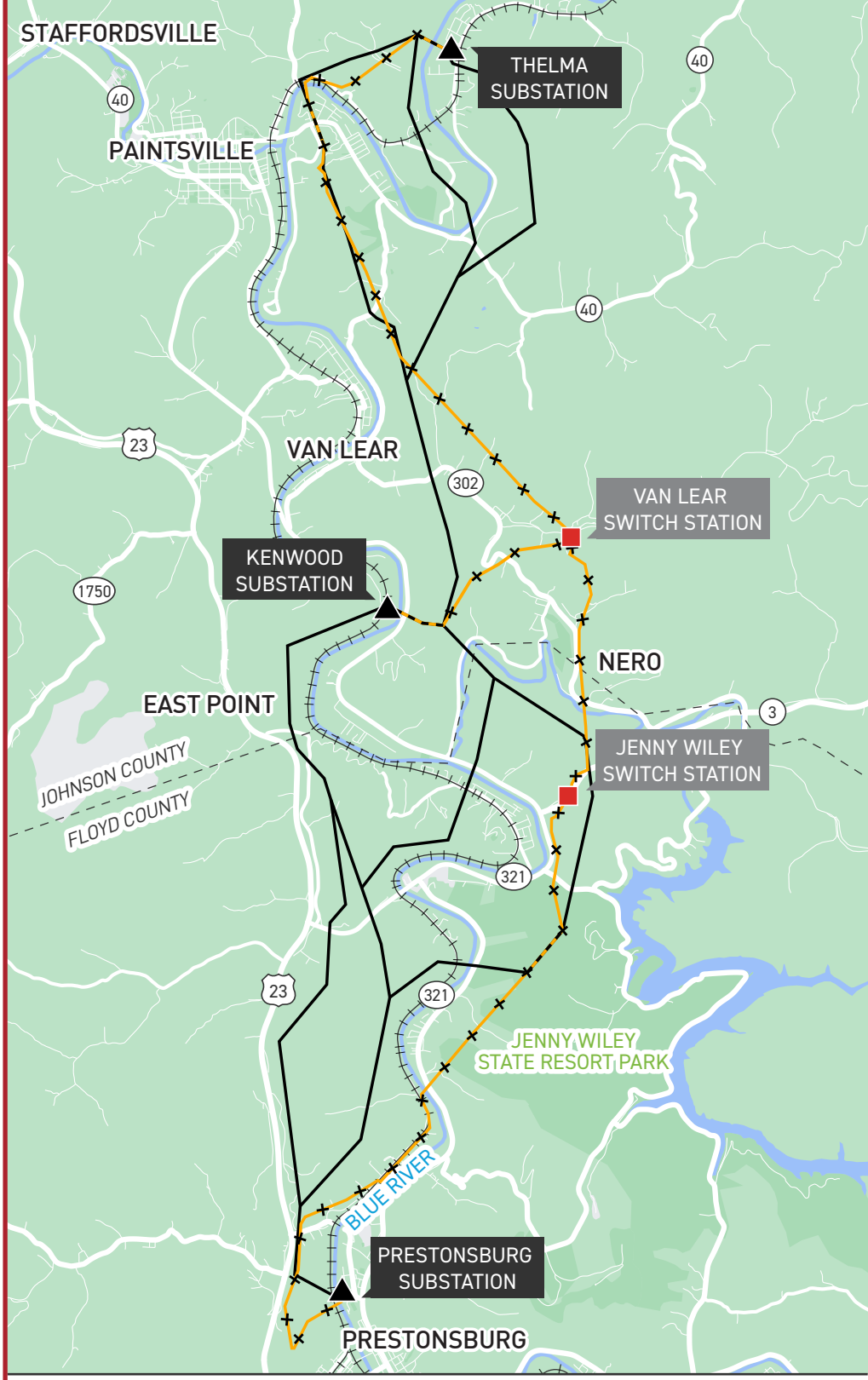


LATTICE TOWER



THREE POLE STRUCTURE

*Exact structure, height, and right-of-way requirements may vary.



PRESTONSBURG - THELMA TRANSMISSION LINE REBUILD PROJECT

- EXISTING TRANSMISSION LINE TO BE RETIRED
- EXISTING TRANSMISSION LINE TO BE REBUILT
- STUDY SEGMENTS FOR TRANSMISSION LINE
- EXISTING SUBSTATION
- SWITCH STATION TO BE RETIRED

N

WHAT ARE STUDY SEGMENTS?
The proposed study segments are alternatives to review in determining a final line route. Not all study segments are constructed. Rather, the company selects the final line routes based on public input and feasibility.

WE VALUE YOUR INPUT. PLEASE SEND COMMENTS AND QUESTIONS TO:
RYAN HOWELL · RIGHT-OF-WAY AGENT
RMHOWELL@AEP.COM · 833-243-5038
KENTUCKYPOWER.COM/THELMA

KENTUCKY POWER
An AEP Company
BOUNDLESS ENERGY

11/11/2022

Attachment B: Data Collection Summary

Data Source	Description
GIS Data	See Attachment C.
Field Inspections	Siting Team members conducted field inspections throughout the Study Area and along the proposed Study Segments in June 2022.
Federal Agencies	• USFWS using the Information for Planning and Consultation (IPaC) System [September 2022] • United Stated Forest Service coordination [June 2022] • NPS National Register of Historic Places (2022) • USGS database (2022) • FEMA (2007) • Agency letters sent on December 16, 2022
State Agencies	• Kentucky division of Geographic Information (2019) • Agency letters sent December 16, 2022, and responses compiled in Project Drive.
Local Agencies/Officials	• Floyd County Officials – presentation to officials by Siting personnel. [September 29, 2022]. • Agency letters sent on December 16, 2022.
Outreach Efforts	• News release introducing the Project and virtual open house published November 21, 2022. • Project mailings sent to 416 landowner addresses on November 21, 2022, and included: ○ Fact sheet, letter, postcard, detailed flyer about transmission line routing, and comment card with prepaid postage return envelope
Open House(s)	In-person Open House held December 7, 2022, and included an interactive overview map, fact sheet, updates and news releases, schedule information, and photographs of representative structures.
Website and Mailed-In Comments	Received 40 public comments. AEP representatives reviewed comments and contacted authors to address concerns or discuss the Project further.

Attachment C: GIS Data Sources

Attachment C. GIS Data Sources		
Siting Criteria	**Source**	**Description**
Land Use		
Number of parcels crossed by the ROW	Johnson County PVA (2021), Floyd County PVA (2021) https://www.johnsoncoky.com/elected-officials/property-valuation-administrator https://www.qpublic.net/ky/floyd/	Count of the number of parcels crossed by the ROW
Number of residences within 100, 250, and 500 feet of the route centerline	Digitized from Kentucky Division of Geographic Information (DGI) (2019) and field verified from points of public access	Count of the number of residences within the ROW and within 100, 250, and 500 feet of potential routes
Number of commercial buildings within 250 and 500 feet of the route centerline	Digitized from Kentucky Division of Geographic Information (DGI) (2019) and field verified from points of public access	Count of number of commercial buildings within the ROW and within 250 and 500 feet of potential routes
Land use acreage and distance crossed by the ROW	National Land Cover Database (NLCD) (2019)	The NLCD (2019) (NLCD 2019) compiled by the Multi-Resolution Land Characteristics (MRLC) Consortium includes 15 classes of land cover from Landsat satellite imagery
Number of archeological resources within the ROW and within 250 feet of centerline	National Register of Historic Places (NPS) (2021)	Previously identified archeological resources listed or eligible on the National Register of Historic Places (NRHP) acquired through NPS 2021
Number of historic architectural resources within the ROW and within 250 feet of centerline	National Register of Historic Places (NPS) (2021)	Previously identified historic architectural resource sites and districts listed or eligible on the NRHP acquired through NPS 2021

Attachment C. GIS Data Sources		
Siting Criteria	**Source**	**Description**
Institutional uses (schools, places of worship and cemeteries) within 250 and 1,000 feet of the route centerline	U.S. Geological Survey's GNIS (2021)	This dataset includes locations of cemeteries, churches, hospitals, parks, and schools. Features within 250 and 1,000 feet of potential routes were field verified.
Airfield and heliports within one mile of route centerline	GNIS (2021) and the Federal Aviation Administration (FAA) database (2021)	Distance from airfields and heliports
Natural Environment		
Forest clearing within the ROW	Digitized based on Digitized from Kentucky Division of Geographic Information (DGI) (2019)	Acres of forest within the ROW
Number of National hydrography dataset (NHD) stream and waterbody crossings within the ROW	USGS (2021)	The NHD is a comprehensive set of digital spatial data prepared by the USGS that contains information about surface water features such as lakes, ponds, streams, rivers, springs and wells
Acres of National Wetland Inventory (NWI) wetland crossings within the ROW	U.S. Fish and Wildlife Service (USFWS) (2021)	The NWI produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats
Acres of 100-year floodplain crossing within the ROW	U.S. Federal Emergency and Management Agency (FEMA) (2007)	Acres of 100-year floodplain within the ROW
Miles of public lands crossed by the route	The Protected Areas Database of the United States (PAD-US) (2020)	Miles of federal, state and local lands crossed by the ROW
Threatened, endangered, rare or sensitive species occurrence within the Project vicinity	US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) (2021)	Known occurrences; locations of potential habitat based on land use

Attachment C. GIS Data Sources		
Siting Criteria	**Source**	**Description**
Percent of hydric soils within the ROW	United States Department of Agriculture (USDA-NRCS), Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database (2019)	Percent of soil associations crossed by the ROW characterized as hydric, predominantly hydric, partially hydric and non-hydric
Percent of prime farmland soils and soils of statewide importance within the ROW	USDA-NRCS SSURGO Database (2019)	Percent of soil associations crossed by the ROW characterized as prime farmland or farmland of statewide importance
Technical		
Route length	Measured in GIS	Length of route in miles
Number and severity of angled structures	Developed in GIS	Anticipated number of angled structures < 3 degrees, 3 to 45 degrees and over 45 degrees based on preliminary design
Number of road crossings	ESRI road file (2018)	Count of federal, state and local roadway crossings
Number of pipeline crossings	U.S. Department of Transportation National Pipeline Mapping System (2020)	Number of known pipelines crossed by the transmission ROW
Number of transmission line crossings	AEP TGIS	Number of high voltage (100 kV or greater) transmission lines crossed by the ROW
Distance of steep slopes crossed	Derived from seamless Digital Elevation Models (DEMs) obtained from the U.S. Geologic Survey (2020)	Miles of slope greater than 20 percent crossed by the routes
Length of transmission line parallel	AEP TGIS	Miles of the route parallel to existing high voltage transmission lines
Length of pipeline parallel	U.S. Department of Transportation National Pipeline Mapping System (2020)	Miles of the route parallel to existing pipelines
Length of road parallel	Esri road file (2018)	Miles of the route parallel to existing roadways

Attachment D: Agency Correspondence

Prestonsburg to Thelma 46-kV Transmission Line
Federal, State and Local Agencies/Officials Contact List

FEDERAL

Mr. Anthony Adams
Regional Administrator
Federal Aviation Administration
90 Airport Road, Bldg 400
Frankfort, KY 40601

Mr. Daniel Blackman
Region 4 Regional Administrator
U.S. Environmental Protection Agency
61 Forsyth Street SW
Atlanta, GA 30303

Mr. Lee Andrews
Field Supervisor, Kentucky Ecological Services
U.S. Fish and Wildlife Service
330 West Broadway Street
Frankfort, KY 40601

Mr. Greg Stone
State Conservationist
U.S. Department of Agriculture, Natural Resources Conservation Service
771 Corporate Drive Suite 210
Lexington, KY 40503

Mr. John Ballantyne
Planning and Environment Team Lead
U.S. Department of Transportation, Federal Highway Adminitration
300 W Broadway Street
Frankfort, KY 40601

Mr. Jeff Joekel
Archivist
National Park Service, National Register of Historic Places
1849 C Street NW Suite 7228
Washington, D.C. 20240

Military Aviation and Installation Assurance Siting Clearinghouse
3400 Defense Pentagon, Room 5C646
Washington, DC 20301-3400

STATE

Ms. Sunni Carr
Executive Director
State of Kentucky Nature Preserves
300 Sower Boulevard
Frankfort, KY 20601

Ms. Kenya Stump
Executive Director
Kentucky Office of Energy Policy
300 Sower Boulevard
Frankfort, KY 20601

Ms. Amanda LeFevre
Deputy Commissioner
Kentucky Department of Environmental Protection
300 Sower Boulevard
Frankfort, KY 20601

Mr. Craig Potts
Director and State Preservation Officer
Kentucky Heirtage Council State Historic Preservation Office
410 High Street
Frankfort, KY 20601

Mr. George Crothers
Director
Kentucky Office of Archeology
120A Export Street
Lexington, KY 40506

Mr. Andrew Logsdon
Ecology and Permitting Branch Manager
Kentucky Transportation Department of Highways
200 Mero Street
Frankfort, KY 20601

Mr. Gordon Slone
Commissioner
Kentucky Department of Natural Resources
300 Sower Boulevard
Frankfort, KY 20601

Mr. Jim Gray
Secretary

Kentucky Office of the Secretary
200 Mero Street
Frankfort, KY 20601

Mr. Steven Hall
Supervisor, Hazard KY Regional Office
Kentucky Department of Environmental
Protection, Division for Air Quality
1332 Kentucky Route 15
Hazard, KY 41701

FLOYD COUNTY

Mr. Chris Waugh
County Clerk
Floyd County Clerk's Office
149 South Central Avenue Suite 1
Prestonsburg, KY 41653

JOHNSON COUNTY

Ms. Sallee Holbrook
County Clerk
Johnson County Clerk's Office
230 Court Street Suite 124
Paintsville, KY 41240

Ms. Regina McClure
Community Development Coordinator
Johnson County Board
230 Court Street Suite 124
Paintsville, KY 41240

POWER ENGINEERS, INC.
6641 W. BROAD STREET
SUITE 405
RICHMOND, VA 23230 USA

PHONE 406-698-1198

<First Name> <Last Name>
<Organization>
<Address 1>
<Address 2>

April 25, 2023

Subject: Kentucky Power Company: Prestonsburg – Thelma 46 kV Rebuild Project in Floyd and Johnson Counties, Kentucky

Dear <First Name>:

Kentucky Power Company is proposing the Prestonsburg - Thelma 46 kilovolt (kV) Rebuild Project, which will rebuild an existing transmission line between the City of Prestonsburg and Paintsville (the Project). Kentucky Power Company contracted POWER Engineers, Inc. (POWER) to conduct route selection studies and prepare the Certificate of Public Convenience and Necessity application to the Kentucky Public Service Commission. On behalf of Kentucky Power Company, POWER is requesting your input on the Project.

The Project will replace aging equipment by rebuilding the existing Prestonsburg – Thelma 46 kV line and upgrading it to 69 kV standards. The existing single circuit 46 kV transmission line to be rebuilt is approximately 12 miles long and was originally installed in the 1940s. Kentucky Power Company plans to rebuild the transmission line within a new right-of-way. The study area for the Project is shown in **Attachment 1** and includes portions of the City of Paintsville, City of Prestonsburg, and Floyd and Johnson Counties.

Kentucky Power Company and POWER are requesting input from you during the route development phase of the Project so that any specific comments can be considered. We appreciate your input; your feedback will be incorporated into the filing with the Public Service Commission. We plan to file the Project with the Public Service Commission in the summer of 2023. Please distribute this notification to staff members who may be involved with this Project for review and comment.

I look forward to receiving your comments and feedback regarding the Project. Please feel to contact me via email at julia.sexton@powereng.com or by phone at 614-502-3968.

Sincerely,

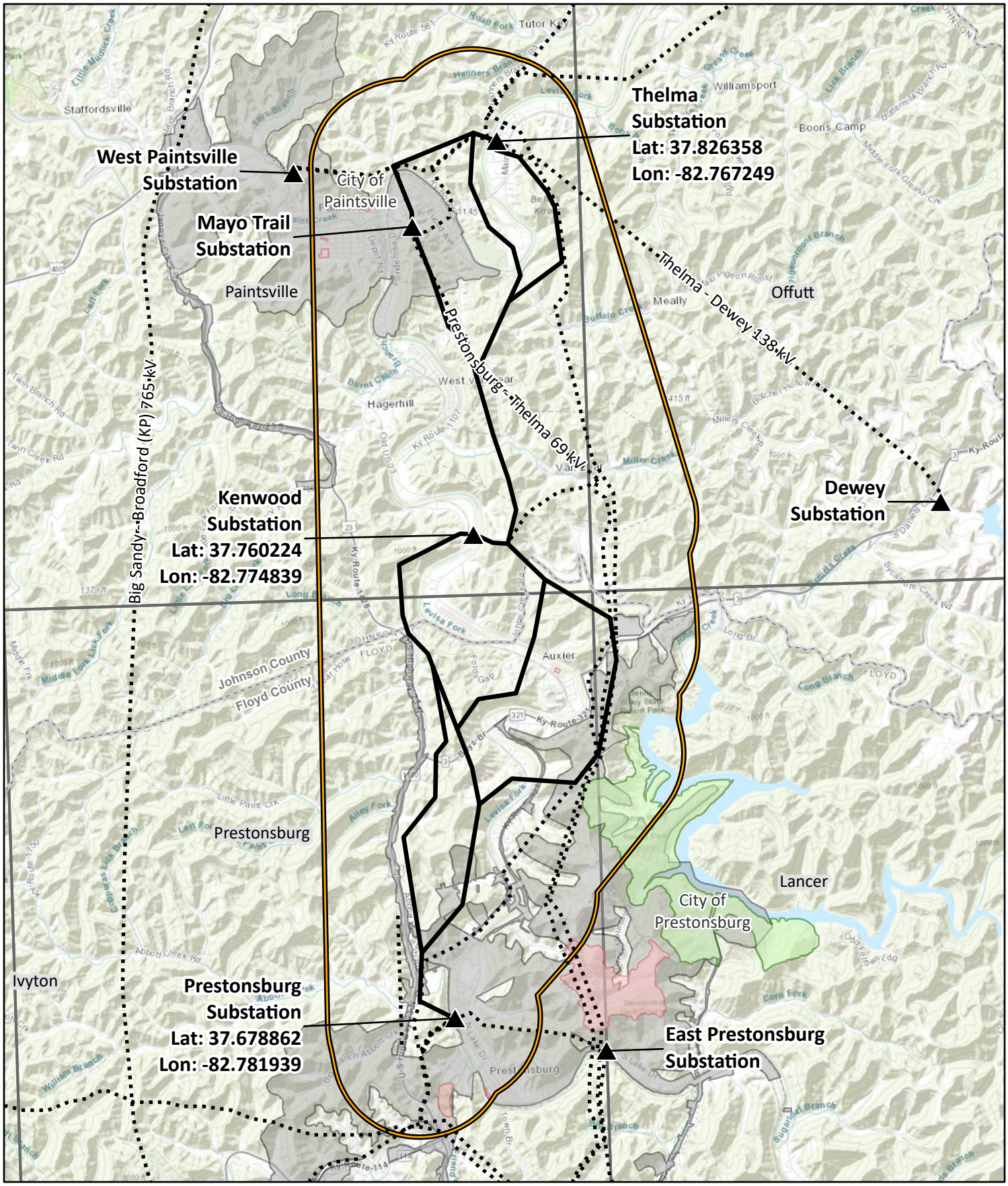
Julia Sexton

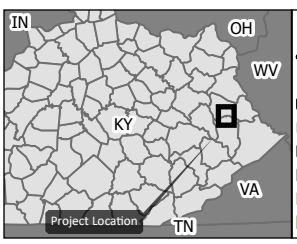
Julia Sexton
POWER Engineers, Inc.

Enclosure: Attachment 1 – Project Study Area

RIC 993-0117 0175940 (2023-01-06) JS

ATTACHMENT 1





- Existing AEP Substation
- Proposed Transmission Line
- Existing Transmission Line
- Project Study Area
- County Boundary
- USGS 24k Topo Map Boundaries
- City Limits
- Local Park
- State Park

0 0.25 0.5 0.75 1 1.25 1.5
Mile

Floyd and Johnson Counties
Kentucky

NAD 1983 2011 StatePlane Kentucky South FIPS 1602 Ft US
Lambert Conformal Conic
NAD 1983 2011

Date:1/13/2023
Author: JH
Project: 175940

Prestonsburg - Thelma Transmission Line Rebuild Project

APPALACHIAN POWER
An AEP Company
BOUNDLESS ENERGY™

POWER ENGINEERS

From: Schoenlaub, Alexis R (EEC) <alexisr.schoenlaub@ky.gov>
Sent: Tuesday, January 24, 2023 1:22 PM
To: Sexton, Julia
Cc: Carr, Sunni L (EEC); Salam, Nour (EEC)
Subject: [EXTERNAL] Kentucky Power Company: Prestonsburg - Thelma 46kV Rebuild Project
Attachments: 20230124-084243.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Prestonsburg-Thelma

Julia Sexton,

The Office of Kentucky Nature Preserves has received your letter (attached) Subject:, “Kentucky Power Company: Prestonsburg - Thelma 46kV Rebuild Project in Floyd and Johnson Counties, Kentucky”

For inquiries like this, I will forward you to our Environmental Review Tool [kynaturepreserves.org]. By uploading your project shapefile, or drawing it on our interactive map viewer, you will receive a Biological Assesment Report of our database within minutes! You will need to create a user profile, and submit a project. Please note, the Office of Kentucky Nature Preserves will send an invoice with a minimum $120 per project submitted.

Please refer to the Kentucky Biological Assessment Tool Help Document [eec.ky.gov] for instructions on how to navigate the site and submit a project. The document is in PDF format and can be quickly navigated using bookmarks and links or by performing text searches within the document.

If you need additional assistance, are interested in an annual subscription, or if you have any other questions, please don’t hesitate to email me.

TEAM KENTUCKY

Alexis R. Schoenlaub
Geoprocessing Specialist III
Office of Kentucky Nature Preserves

Phone: 502-718-3909
Email: alexisr.schoenlaub@ky.gov

300 Sower Blvd, 4th floor
Frankfort, KY 40601

https://eec.ky.gov/Nature-Preserves [eec.ky.gov]

United States Department of Agriculture

Julia Sexton
POWER Engineers, Inc.
6641 W. Broad Street, Suite 405
Richmond, VA 23230

January 30, 2023

RE: Kentucky Power Company: Prestonsburg – Thelma 46 kV Rebuild Project in Floyd and Johnson Counties, Kentucky

Dear Ms. Sexton,

The Natural Resources Conservation Service (NRCS) has reviewed the information submitted for the subject project in Floyd and Johnson Counties, KY. The USDA-Natural Resources Conservation Service (NRCS) is concerned with potential impacts that projects might have upon prime farmland soils, farmlands of statewide importance, PL-566 watershed structures, wetlands identified under the Food Security Act, Wetland Reserve Program (WRP/WRE) and Grassland Reserve Program (GRP) easements.

KY NRCS is not aware of any existing easements, plans or activities related to ongoing efforts in the defined project area. A cursory review indicates that prime farmlands and farmlands of statewide importance are located within the project area. If it is determined that prime farmlands or farmlands of statewide importance are present and may be converted from agricultural to non-agricultural uses a form AD-1006 (or Form NRCS-CPA-106 if the project is a corridor type project) must be submitted to the local NRCS office. These forms may be obtained from any local NRCS office and are also available as electronic forms on the web at:

http://forms.sc.egov.usda.gov/eForms/welcomeAction.do?Home.

NRCS has no further environmental comments regarding the proposed project. We appreciate the opportunity to provide input on this project. If you have questions regarding this matter, please contact Steve Blanford, State Soil Scientist at (859) 224-7607 or Christina Pappas, NRCS KY State Cultural Resource Specialist at (859) 224-7433 or christina.pappas@usda.gov.

Sincerely,

CASEY D. SHRADER
Acting State Conservationist

cc: Christina Pappas, State Cultural Resource Specialist, Lexington, KY
Steve Blanford, State Soil Scientist, Lexington, KY

From: Sexton, Julia
To: "Airport Zoning Commission"
Cc: Shelley Campbell; Santos, Anastacia
Subject: RE: Contact Info, 9KY9 - Paintsville-Prestonsburg-Combs Field
Date: Tuesday, April 11, 2023 2:41:00 PM
Attachments: FAA Structure Details 2023-04-11.xlsx
Prestonsburg-Thelma FAA Routes and Structures Map 2023-04-11.pdf
image001.jpg
image002.jpg

Anthony,
Please see the attached maps and spreadsheet with detailed coordinates/locations and height AGL of the proposed transmission line going into Kenwood Substation. Please let me know if you have any questions. We plan on passing this along to Mr. Haddix at Paintsville-Prestonsburg Combs Field as well.
Thanks,

JULIA SEXTON
ENVIRONMENTAL SPECIALIST I

614-502-3968
540-729-3281 cell

POWER Engineers, Inc.
www.powereng.com

6641 W. Broad Street, Suite 405
Richmond, VA 23230

From: Airport Zoning Commission <AirportZoning@ky.gov>
Sent: Monday, April 3, 2023 3:30 PM
To: Sexton, Julia <julia.sexton@powereng.com>; Airport Zoning Commission <AirportZoning@ky.gov>
Cc: Shelley Campbell <emcampbell@aep.com>; Santos, Anastacia <anastacia.santos@powereng.com>
Subject: [EXTERNAL] RE: Contact Info, 9KY9 - Paintsville-Prestonsburg-Combs Field

---

If the transmission lines/poles/towers are 85 feet above ground level, AGL, it appears the transmission lines running north and south of the Kenwood Substation penetrate the protected airspace surrounding Paintsville-Prestonsburg-Combs Field, 9KY9.

The KY Airport Zoning Commission is responsible for protecting the airspace surrounding this airport.

Request you provide me a more detailed map showing the coordinates/locations and height AGL of the transmission lines north, south, east, and west of Kenwood Substation? This will allow me to develop a better picture of how these transmission lines may impact the airspace surrounding the airport.

You are not required to submit paperwork or a permit application to the FAA.
Since the transmission lines do not exceed 200 feet AGL, the FAA does not require you submit anything to them for approval/authorization.
9KY9 is a Private Airfield, and since its runway is paved and exceeds 2900 feet in length, it receives state zoning protection.

If you have questions or need additional information, please email or call me.

Regards,


[transportation.ky.gov]

Anthony Adams
AIRPORT ZONING COMMISSION, ADMINISTRATOR
Department of Aviation
90 Airport Road, Bldg 400
Frankfort, Kentucky 40601
(502) 564-0151
(502) 564-0570 Direct Line
(502) 330-4022 Mobile
Airport Zoning Commission | KYTC [transportation.ky.gov]

From: julia.sexton@powereng.com <julia.sexton@powereng.com>
Sent: Friday, March 31, 2023 3:38 PM
To: Airport Zoning Commission <AirportZoning@ky.gov>
Cc: Shelley Campbell <emcampbell@aep.com>; anastacia.santos@powereng.com
Subject: RE: Contact Info, 9KY9 - Paintsville-Prestonsburg-Combs Field

---

Anthony,
Thank you for the Mr. Haddix's contact information. We will be reaching out to him shortly. I have attached an information packet with a map of the Project Area that includes our transmission line route study segments as you requested during our conversation yesterday. Please let me know if you have any questions.
Thanks,

JULIA SEXTON
ENVIRONMENTAL SPECIALIST I

614-502-3968
540-729-3281 cell

POWER Engineers, Inc.
www.powereng.com

6641 W. Broad Street, Suite 405
Richmond, VA 23230

From: Airport Zoning Commission <AirportZoning@ky.gov>
Sent: Thursday, March 30, 2023 10:51 AM
To: Sexton, Julia <julia.sexton@powereng.com>
Subject: [EXTERNAL] Contact Info, 9KY9 - Paintsville-Prestonsburg-Combs Field

---

The contact POC info for the Paintsville-Prestonsburg-Combs Field is:

Stanley Haddix
8315 KY Route 321
Hager Hill, KY 41222
606-434-5335

Stanley runs a business at the airport, and he is the airport manager.
I spoke to him today and verfied the contact information.

If you need additional infromation, please email or call.

Respectfully,

[transportation.ky.gov]

Anthony Adams
AIRPORT ZONING
COMMISSION, ADMINISTRATOR
Department of Aviation
90 Airport Road, Bldg 400
Frankfort, Kentucky 40601
anthony.adams@ky.gov
(502) 564-0151
(502) 564-0570 Direct Line

(502) 330-4022 Mobile
Airport Zoning Commission | KYTC [transportation.ky.gov]

KENTUCKY AIRPORT ZONING COMMISSION

ANDY BESHEAR
Governor

Department of Aviation, 90 Airport Road
Frankfort, KY 40601
www.transportation.ky.gov
502-564-0151

JIM GRAY
Secretary

APPROVAL OF APPLICATION

Thursday, June 15, 2023

Appalachian Power
1 Riverside Plaza
Columbus, OH 43215

AS-2023-026-9KY9	**Paintsville-Prestonsburg-Combs Field**
APPLICANTS NAME:	KY Power
NEAREST CITY:	Paintsville, KY
LATITUDE/LONGITUDE:	37°44'12.07" N, 82°45'55.19" W
HEIGHT (In Feet):	86’ AGL /873’ AMSL
CONSTRUCTION PROPOSED:	Proposed electric transmission line.

NOTES: The proposed transmission line penetrates the 100:1 Slope and the Conical Surface.

FAA DETERMINATION: Not Required. This is a Private Airport covered by State Zoning regulation,, but per the FAA Notice Criteria Tool, there is no requirement to file with the FAA.

This letter is to notify you that the Kentucky Airport Zoning Commission approved your permit application for the construction of Structures at the Location, Coordinates, and Height as indicated above.

This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit.

A copy of this notification has also been emailed to your representative, Julia Sexton, at julia.sexton@powereng.com. Contact us with any questions you may have.

Respectfully,

Anthony Adams

Airport Zoning Commission Administrator
KY Department of Aviation
AirportZoning@ky.gov
502-564-0151 Office

TEAM KENTUCKY
TRANSPORTATION CABINET