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Rebuild Siting Study

for

Wooton – Stinnett Transmission Line Rebuild Project

Prepared for:



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Key Terminology

Alternative Routes	Assemblage of Study Segments that form routes for analysis and comparison.
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.
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.
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.
Transmission Line Extension	An electric transmission line from a tap point on an existing transmission line to a substation or customer.



Rebuild Siting Study

ACRONYMS

AEP	American Electric Power
Company	Kentucky Power Company
IPaC	Information for Planning and Consultation
KNP	Kentucky Nature Preserve
kV	kilovolt
КҮТС	Kentucky Transportation Council
NHD	National Hydrography Dataset
NLCD	National Land Cover Database
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
Project	Wooton – Stinnett Transmission Line Rebuild Project
PSC	Kentucky Public Service Commission
ROW	right-of-way
SHPO	State Historic Preservation Office
U.S.	United States
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service



1.0 **PROJECT DESCRIPTION**

Kentucky Power Company (Kentucky Power or the "Company") is proposing to rebuild an existing 161 kilovolt (kV) transmission line in Leslie County, Kentucky due to aging infrastructure. The Wooton – Stinnett Transmission Line Rebuild Project (the "Project") consists of rebuilding approximately 11 miles of the existing Hazard – Pineville 161 kV Transmission Line between the existing Wooton, Leslie, and Stinnett substations within or near the existing right-of-way (ROW) and includes upgrades to equipment at the Wooton, Leslie, and Stinnett substations. The Project will ensure continued reliable electric service by upgrading aging infrastructure with modern equipment. The Project will minimize outage durations by paralleling the existing ROW in and out of Leslie Substation.

The Project is needed due to the deteriorating condition and performance of the existing infrastructure. The existing 161 kV line was constructed in the 1940s using wooden H-frame structures, which are now 80 years old. The transmission line will be rebuilt primarily using single-circuit steel H-frame structures, but lattice tower structures may be used in select locations to accommodate longer spans. Double-circuit lattice tower structures will be used for the Leslie Loop portion of the Project. Final structure types will be dependent on detailed engineering and additional studies. The anticipated height of the single circuit structures will be on average 85 feet tall but will vary along the route depending on topography and constraints. The transmission line will primarily be rebuilt on centerline or parallel to the existing ROW, where the line is outage constrained near the Leslie Substation. To meet long-term maintenance and safety criteria, the existing 100-foot ROW will be expanded to a width of approximately 120 feet; however, the ROW width may vary along the route depending on Project needs, engineering requirements, and topography. See Attachment A, Outreach Fact Sheet for a Project summary and illustrations.

The Project requires approval from the Kentucky Public Service Commission (PSC) for a Certificate of Public Convenience and Necessity. The Company anticipates filing the application in May 2022.

The Company initiated the siting process for the Project in May 2021, where study segments were developed and reviewed to rebuild the existing transmission line between the Wooton, Leslie, and Stinnett substations. The Company met with local Leslie County officials in June 2021 to introduce the Project and solicit feedback. Study segments were presented to the public on a Project-specific website with a comment period in July 2021. Pending issuance of all required federal, state, and/or local permits, construction is expected to begin in the first or second quarter of 2023.



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

2.0 ROUTE DEVELOPMENT OVERVIEW

American Electric Power's (AEP) electrical planners started the route development process by defining the **Project Endpoints** which includes the Company's existing Hazard – Pineville 161 kV Transmission Line between the existing Wooton, Leslie, and Stinnett substations (see Attachment A, Fact Sheet). Planners also confirmed that the transmission line could be taken out of service (with the exception of the Leslie Loop) and rebuilt within the existing ROW.

Next, the Siting Team defined the **Study Area** to develop transmission line routes. The Study Area encompasses the Project endpoints and the logical area in between (see Attachment E, Map 1). The Study Area for the proposed rebuild encompasses the ROW of the existing 11-mile transmission line and an approximate 0.5-mile buffer to each side of the existing centerline to analyze potential impacts associated with a rebuild and minor diversions, as needed (see Attachment E, Map 1). The Project Study Area is generally rural, mountainous, and forested with mining land uses to the east and scattered residential areas throughout.

Data Collection (see Attachments B, C, and D) and **Constraints and Opportunities** mapping were completed for the Study Area. Readily available public data sources were used initially and supplemented with stakeholder input, non-public data, and field inspections (see Study Area GIS Constraints Map, Attachment E, Map 1). Major constraints include the mountainous terrain, active mining areas within and adjacent to the study area, gas wells, Kentucky Department of Fish and Wildlife Resources' Wildlife Management Areas, and a portion of the Daniel Boone National Forest managed by the United States Forest Service (USFS) that is crossed by the existing centerline.

The primary siting opportunity for the Project is the existing Hazard – Pineville 161 kV Transmission Line ROW corridor. The Siting Team maximized rebuilding on the existing centerline where possible and paralleled or created diversions from the existing ROW to minimize outage durations or avoid constraints. The Siting Team reviewed Rebuild and Reroute Segments as conceptual route options to avoid constraints where possible.

The refinement and development of **Study Segments** is the next step (see Section 3.0). Study Segments are partial alignments that, when combined, form a complete route. Study Segments were presented to the public during a virtual open house (see Section 4.0).

Next, the Study Segments were assembled into a **Rebuild Route** (see Section 5.0), which was reviewed to determine potential impacts associated with rebuilding in or near the existing ROW.



Lastly, based on analysis and stakeholder input, the Siting Team identified a **Proposed Route** and the reasons for the Project's Proposed Route selection are summarized in Section 6.0.

3.0 STUDY SEGMENTS

Study Segments (see Attachment E, Map 2) are partial alignments connecting the Project Endpoints within the Study Area. The Study Segments are developed to meet the Project's need and, at the same time, minimize natural and human environmental impacts and Project costs.

The existing Hazard – Pineville 161 kV Transmission Line crosses forested, mountainous terrain with residences and outbuildings scattered along valleys and roadways. After reviewing the existing ROW and determining that a majority of the Project is able to be rebuilt on the existing centerline, the Siting Team developed Study Segments that primarily use the existing centerline and ROW (Rebuild Segments), with minor diversions as needed due to encroachments within the existing ROW, federal property, or to accommodate outage constraints, such as near Leslie Substation (Reroute Segments). The Siting Team developed six Study Segments for the Project and includes a combination of on- and off-centerline segments. All areas that will be rebuilt oncenterline are referred to collectively as the **Rebuild Segments**. The **Reroute Segments** are the off-centerline alignments. The Rebuild Segments and Reroute Segments are shown on Attachment E, Map 2.

3.1 Reroute Segments

While developing Study Segments, the Siting Team identified three locations along the existing centerline, where rebuilding on centerline may not be feasible due to the presence of constraints. At State Route 699 (Cutshin Road), a diversion to the northwest of the existing centerline was created to avoid a residence located within the existing ROW. To avoid the home, an on-centerline option was not considered and this slight shift was incorporated into a small section of Study Segment 1.

The Leslie Loop is a double circuit loop off of the Hazard – Pineville 161 kV Transmission Line and provides a main electrical source into the Leslie Substation. Study Segment 2 rebuilds the Leslie Loop, off-centerline and parallel to the existing transmission line; both circuits cannot be taken out of service at the same time and maintain reliable service. Study Segment 2 is approximately 0.4 mile long and located 85 feet to the south of the existing centerline.

A Reroute Segment was identified along the portion of the Project crossing the Daniel Boone National Forest to evaluate potential impacts where the existing ROW crosses the federal property (approximately 500 feet). A Reroute Segment (Study Segment 4) shifts northwest of the existing centerline to avoid crossing the Daniel Boone National Forest, which is currently crossed by the existing ROW. Study Segment 4 is off the existing centerline for approximately 0.8



mile to avoid crossing the Daniel Boone National Forest before turning southeast and connecting back onto the existing centerline.

The Siting Team identified minor diversions from the existing centerline on the Existing Rebuild Route to avoid existing encroachments (one house), the Daniel Boone National Forest, or to address outage constraints. Supplemental easements will be acquired to address these changes if included in the Proposed Route.

3.2 Rebuild Segments

The Siting Team considered Rebuild Segments where rebuilding in or near the existing ROW was practicable. Study Segment 1 begins at the existing Wooton Substation and exits to the northwest before turning and traveling in a southwest direction along the existing centerline. Study Segment 1 travels along the existing centerline for approximately 3.1 miles until just north of Cutshin Road. At Cutshin Road, Study Segment 1 shifts slightly northwest of the existing centerline to avoid a residence located within the existing ROW. Study Segment 1 then returns to existing centerline after approximately 0.3 mile and continues on centerline travelling southwest towards the existing Leslie Substation for approximately one mile. Study Segment 2 rebuilds the Leslie Loop (approximately 0.4 mile) and is described above under Reroute Study Segments (Section 3.1).

Study Segment 3 begins at the intersection of Study Segments 1 and 2 and travels in a southwest direction. Study Segment 3 is shifted slightly off centerline to accommodate the new Leslie Loop tap location, which will be built in the clear. Study Segment 3 then returns to the existing centerline after approximately 0.3-mile and continues for approximately four miles. Study Segment 4 avoids the Daniel Boone National Forest and is described above under Reroute Study Segments.

Study Segment 5 connects to the southern endpoint of Study Segment 3 and travels along the existing centerline for approximately 0.8 mile. Study Segment 5 crosses the Daniel Boone National Forest at the existing transmission line crossing location. Study Segment 6 continues along the existing centerline after the considered diversion around the Daniel Boone National Forest and in a southwest trajectory for approximately 0.7 miles, ending north of the Stinnett Substation at the intersection of the Hazard – Pineville 161 kV Transmission Line and the Stinnett 161 kV Loop (Structure K131-91A).

4.0 PUBLIC INVOLVEMENT

The Study Segments discussed above, including the Daniel Boone National Forest Reroute Segment and Rebuild Segments, were presented to the public with a request for comments via a



Project-specific website, which included a virtual open house, interactive overview map, fact sheet, updates and news releases, schedule information, and photographs of representative structures. At the conclusion of the approximate 30-day comment period, AEP received eight landowner comments on the Project.

An in-person public open house was not advisable during the COVID-19 pandemic given the travel restriction and social distancing recommendations and requirements of the Centers for Disease Control and Prevention. In lieu of an in-person public meeting, a virtual open house was created on the Project website (**www.aeptransmission.com/Kentucky/Wooton-Stinnett**). The Project was publicly announced with a news release and virtual open house on July 8, 2021. The content provided during the virtual open house was made similar to that of in-person public open houses. The virtual open house provided content related to engineering and design of the structures, Project need, ROW, and construction. In addition, the virtual open house allowed landowners and the public to submit comments to the Siting Team and identify properties through an address search tool.

Aerial maps at a scale of one-inch equals 200 feet were provided on the Project website during the virtual open house and were available to download. Features on the maps included existing infrastructure and the portions of the 161 kV transmission line to be rebuilt. Participants were encouraged to identify the location of their houses, places of business, properties of concern, or other sensitive resources on the mapping and submit comments to the Siting Team. Comments received through the virtual 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 welcomed on the website through the contact page. A total of eight comments were either returned to the Company or received through the Project website.

Landowners within a 500-foot corridor (250 feet on either side of a route centerline) of the transmission line to be rebuilt were notified of the July 2021 virtual open house. Landowner addresses were obtained from Leslie County. The notification included the following means:

- 1. A news release was distributed by the Company on July 8, 2021 to announce the Project and virtual open house.
- Two separate Project mailings were sent to 176 landowner addresses on July 8 and July 15, 2021. The first outreach mailings included a letter, postcard, fact sheet, and comment card with a prepaid postage return envelope. The second outreach mailing contained a postcard.



A total of eight landowner comments were received via the Project website or by email, telephone, or comment card. Those comments were entered into the Project public comment database, and generally related to existing easement rights. Given the Project will largely use existing ROW, minimal new impacts are anticipated.

After the virtual open house, the Siting Team dismissed Study Segment 4, which considered a reroute to avoid the Daniel Boone National Forest. Study Segment 4 would require approximately 10 acres of tree clearing and up to three additional angle structures as compared to the existing ROW across the Daniel Boone National Forest, which has previously been cleared. Additionally, the ROW across the National Forest is an aerial span, with no transmission line structures located on the Daniel Boone National Forest and work on the federal property is not anticipated. As a result, Study Segment 4, the Reroute Segment, was dismissed and the Siting Team considered the on-centerline Rebuild Segment 5, which uses the existing ROW across the federal land. The Siting Team consulted with Forest Service staff during the public open house period, and the Company will continue to work with the Daniel Boone National Forest as the Project progresses.

No other refinements were made to the Study Segments as a result of the virtual open house and landowner feedback. The Company will continue to coordinate with landowners and stakeholders throughout the duration of the Project.

Given the extensive use and availability of existing ROW, there are minimal viable reroute segments or alternative routes. Abandoning the existing ROW for a new greenfield route is neither practical nor necessary in most of the Project area. Furthermore, using the existing ROW for the Project is consistent with public preferences and general siting guidelines for paralleling or utilizing existing ROWs for new transmission facilities where feasible.

5.0 REBUILD ROUTE REVIEW

The Siting Team carried forward Study Segments 1, 2, 3, 5, and 6 between the Wooton and Stinnett Substations (Attachment E, Map 3) as the Rebuild Route. The input received from the virtual open house did not result in modifications or adjustments to the Rebuild Segments. The Reroute Segment (Study Segment 4) in the Daniel Boone National Forest was dismissed following the Virtual Open House and coordination with the USFS in the summer of 2021. Since Study Segment 5 occupies the existing ROW and would not require any structures to be located on USFS land, the Siting Team determined that rebuilding on existing centerline was feasible and preferred in order to limit disturbance to the surrounding area.

Potential impacts associated with rebuilding in the existing ROW included potential impacts to existing land use and residences and the natural environment. However, abandoning the existing ROW for a new greenfield route is neither practical nor necessary and therefore, alternative



routes were not developed. The Siting Team determined that the Rebuild Route, which is largely in or near the existing ROW, is feasible for construction and minimizes impacts to the extent possible. Table 1 and the following route comparison includes the five Rebuild Segments to form the Rebuild Route.



Table 1. Project Evaluation Criteria		
Criteria	Unit	Rebuild Route
Length	miles	10.5
Natural Environment	2	
Farmland of statewide importance ¹ in the ROW (SSURGO)	acres ²	9.3
Total streams crossed (NHD)	count	16
Approximate tree clearing required in the proposed 120' ROW (digitized based on aerial imagery)	acres	45
National Forestland crossed by ROW	acres	1.3
No High/Exceptional/Special Protection Streams or Section 10 Rivers are crossed.		
Human Environment		
Number of parcels ³ crossed by ROW	count	61
Unique landowners ⁴ within ROW	count	53
Pasture/rangeland crossed in ROW (SSURGO)	acres	3
Cropland crossed in ROW (SSURGO)	acres	0
Barns, outbuildings, shed, garages, and silos ⁵ in the ROW (excludes abandoned features)	count	1
Residences/single-family dwellings within ROW	count	0
Residences/single-family dwellings within 100 feet of centerline	count	4
Residences/single-family dwellings within 250 feet of centerline	count	19
Residences/single-family dwellings within 500 feet of centerline	count	43
Businesses/commercial buildings within 250 feet of centerline	count	0
Designated places of worship within 1,000 feet of centerline	count	0
Schools within 1,000 feet of centerline	count	0
Cemeteries within 250 feet of centerline	count	0
Mining areas crossed	count	1
Conservation easements crossed by 120-foot ROW		0
No NRHP-listed or eligible sites or historic districts are within 1.0 mile of the Prop	osed Route cen	terline.



Table 1. Project Evaluation Criteria		
Criteria	Unit	Rebuild Route
Transportation and Utilities	,	
U.S. highways crossed	count	0
State highways crossed	count	3
Local roads and streets crossed	count	19
Oil and gas wells within 250 feet from edge of ROW	count	2
Steep slopes crossed by ROW (>20%), percent of total length	percent	31%
No interstate highways, railroads, or scenic byways are crossed by the Proposed Route.		
Total length rebuilt on centerline	miles	8.8
Total length parallel to centerline on new ROW	miles	1.7
Rebuilt on centerline, percent of total length	percent	83%

Notes: SSURGO = NRCS' Soil Survey Geographic Database

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

² Acreage calculations presented in the table assume a 120-foot-wide ROW.

³The number of parcels crossed refers to the number of individual plots of owned land recorded by Leslie County

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

⁵ Footprints for buildings were obtained from LiDAR imagery. One outbuilding encroaches on the proposed ROW.



5.1 Natural Environment

The natural environment includes water, soil, sensitive species, and wildlife habitat. Potential impacts are based on publicly available maps and data as well as coordination with federal, state and local agencies.

The Project uses the existing ROW where feasible in order to reduce potential impacts to the natural environment. A data request was submitted to the Office of Kentucky Nature Preserves (KNP) on July 16, 2021 to review the Natural Heritage Program Database to determine if endangered, threatened, or special concern plants and animals or exemplary natural communities have the potential to occur in the Project Study Area. The KNP report indicated the following monitored species may be located within one mile of the Project Area, including the following species: Cutshin crayfish (*Cambarus taylori*), snuffbox (*Epioblasma triquertra*), Kentucky arrow darter (*Etheostoma spilotum*), American brook lamprey (*Lethenteron appendix*), heptageniid mayfly (*Maccaffertium bednariki*), eastern small-footed myotis (*Myotis leibii*), little brown bat (*Myotis lucifugus*), northern long-eared bat (*Myotis septentrionalis*), Indiana bat (*Myotis sodalist*), evening bat (*Nycticeius humeralis*), tricolored bat (*Perimyotis subflavus*), and the eastern spotted skunk (*Spilogale putorius*). The KNP report also indicated the Boone Forestlands Wildlife Management Area, Daniel Boone National Forest, and the Mary Breckinridge Memorial Nature Preserve are located within one mile of the Project.

The Project crosses mountainous terrain with forested areas that could provide habitat for various species. No response was received from the Kentucky Department of Fish and Wildlife Resources, the Kentucky Department of Environmental Protection, or the Kentucky Department of Natural Resources regarding the Project. The Siting Team used an United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) project planning tool on September 24, 2021 to determine that that three threatened or endangered bat species, the gray bat (*Myotis grisescens*), the Indiana bat (*Myotis sodalist*), and the northern long-eared bat (*Myotis septentrionalis*) along with one threatened species of fish, Kentucky arrow darter (*Etheostoma spilotum*), and one endangered species of clam, snuffbox mussel (*Epioblasma triquertra*) could potentially occur in the Project Area. No critical habitat areas were identified in the USFWS and KNP databases.

Overall, the Project will minimize tree clearing and potential loss ecological areas and habitats by using the existing ROW where feasible and rebuilding adjacent to the existing ROW. Based on digitized tree cover, the Rebuild Route will require tree clearing to widen the ROW to 120 feet and the removal of danger trees or other vegetation (approximately 45 acres) that may be located within or immediately adjacent to the existing and proposed ROW.



The report generated from the KNP is included in **Attachment D.** Coordination and review with the KNP and other state and federal organizations will be conducted during the Project's environmental studies.

5.2 Human Environment

The human environment includes land use and activities at a given location such as agriculture, forestry, residential development, industry, mining, commercial development, institutional uses, scenic assets, and recreational uses. The opportunity to use or parallel the existing ROW, when feasible, minimizes conflicts with existing and planned land uses as compared to a new transmission line ROW in an area where one does not currently exist. Given the operational constraints for the Project, areas outside the existing centerline were reviewed to minimize construction outages on the Leslie Loop or residential impacts in the existing centerline. To minimize outages and human environment impacts, portions of the Rebuild Route parallel the existing ROW.

A company representative met with the Leslie County Judge Executive on June 9, 2021, to introduce the Project. No concerns for future land use conflicts were noted. No planned developments were identified within or adjacent to the existing ROW.

The Kentucky Office of State Archaeology provided input on the Project in a letter dated July 15, 2021. The Office of State Archaeology indicated that there are five known archaeological sites within or adjacent to the one-mile buffer Study Area including three historic farms/residences and two rock shelters. The five identified sites have not been assessed for their eligibility to the National Register of Historic Places (NRHP). The Office of State Archaeology recommended continued coordination with the Kentucky Heritage Council State Historic Preservation Office (SHPO).

A response was received from the Kentucky Heritage Council SHPO on August 11, 2021, asking for additional input on the Project. The Siting Team sent a response letter on September 16, 2021, detailing the Project Study Area boundary and additional Project details. Overall, impacts to historic resources are expected to be minimal along the Rebuild Route given the use of existing ROW and that there are no listed or eligible NRHP sites within one mile of the Rebuild Route. The Siting Team will continue to coordinate with the Kentucky Heritage Council SHPO throughout the Project to minimize impacts to any cultural our historic resources.

The Siting Team contacted the Kentucky Transportation Council (KYTC) to determine if any existing or planned KYTC projects are located within the Project Study Area. In a response letter dated July 20, 2021, KYTC noted there are no known construction projects within the Study Area.



As with any transmission line project, the Company will need to obtain approval on standard encroachment permits for construction that crosses a state-maintained road. The Rebuild Route crosses three state highways. The Company will continue to coordinate with KYTC throughout the Project to minimize impacts and ensure the necessary approvals are obtained.

The Rebuild Routes consider using the existing ROW or paralleling the ROW. No viable alternative routes were identified, as they would add additional impacts to the human environment (such as potential conflicts with existing and future land uses) and would require new ROW. Input during the open house did not indicate concerns for off-centerline areas and no future development plans were identified. One residence and one outbuilding were identified as being within the existing ROW. Based on engineering analysis to date, the Rebuild Route can be designed to avoid the residence in the ROW, by shifting approximately 85 feet northwest to avoid the residence. The outbuilding is located within the proposed Rebuild Route ROW could not be avoided and may need to be relocated through coordination with the landowner. Subject to final engineering and ROW negotiations with affected landowners, the Company does not expect any residences to be removed to accommodate the rebuilt line. The Company will continue to coordinate with landowners where new ROW is proposed or easements need to be supplemented.

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) was asked to provide input on the Project regarding land use and potential impacts to prime farmland soils, farmlands of statewide importance, PL-566 watershed structures, and wetlands identified under the Food Security Act, Wetland Reserve Program, and Grassland Reserve Program easements. In a response letter dated September 17, 2021, USDA NRCS determined there are no existing easements, plans, or activities within the Project Study Area and that no prime farmlands or farmlands of statewide importance would be converted. By rebuilding within or adjacent to existing ROW, potential impacts to land use are minimized.

These responses received from the Kentucky Office of State Archaeology, Kentucky Heritage Council SHPO, KYTC, and USDA NRCS are included in **Attachment D**. Coordination and review with the Kentucky Heritage Council SHPO, KYTC, and other federal and state organizations will be conducted during the Project's environmental studies.

5.3 Visual

Aesthetics are defined as a mix of landscape visual character, the context in which the landscape is viewed (view/user groups), and the scenic integrity of the landscape. The existing transmission line H-frame structures average approximately 60 feet in height and the proposed transmission line structures average approximately 85 feet in height (excluding the three lattice double circuit towers and one double circuit monopole needed for the Leslie Loop). The increased height is



needed to meet current National Electrical Safety Code clearance requirements and implementation of new design standards. The existing Wooton – Stinnett 161 kV Transmission Line is in a remote mountainous area and crosses a mix of land uses, including forested, recreational, mining, and residential areas. No scenic byways are crossed by the Project. The Rebuild Route crosses Cutshin Road and other county and local roads. The Rebuild will increase structure heights to meet current standards; however, significant additional visual impacts are not anticipated as the overall character will not change within the existing ROW and generally terrain and tree cover will block views of the transmission line from residential areas.

Using the existing ROW and replacing infrastructure where it already exists avoids new visual impacts to landowners and minimizes the need to clear additional ROW. In addition, sections of the Rebuild Route that parallel the existing ROW or deviate from the existing centerline are primarily located in heavily forested areas where a vegetative cover minimizes extensive visual impacts. Overall, the Project uses or parallels the existing ROW for a majority of the length which minimizes visual impacts.

5.4 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.

Rebuilding the approximate 11-mile Wooton – Stinnett 161 kV Transmission Line on existing centerline was feasible; however, the double circuit Leslie 161 kV Loop needs to be built in the clear due to outage constraints. The Rebuild Route largely uses or parallels the existing ROW, which minimizes construction risks as crews can largely use existing access roads where feasible and minimize disturbances to areas not previously crossed by the ROW that would otherwise require tree clearing. As with paralleling existing infrastructure, crossing over transmission lines, distribution lines, pipelines, or other existing infrastructure may require specialized construction techniques and scheduled outages on the existing facilities. The Siting Team attempted to minimize engineering challenges during route review.

A letter received from the KYTC indicated that no existing or planned transportation projects are located within the Project Study Area. No response letter was received from the Federal Aviation Administration or the Kentucky Department of Aviation, and no airports are located within one mile of the Project centerline. Additional coordination with the Kentucky Department of Aviation, Federal Aviation Administration, and the KYTC will be conducted as applicable during the Project's permitting and construction phases.



6.0 **PROPOSED ROUTE**

Based on stakeholder input and analysis, the Siting Team identified the Rebuild Route as the **Proposed Route.**

The Siting Team concluded that building in or near the existing ROW was the most suitable location. Abandoning the existing ROW for a new greenfield route, which would introduce new impacts, is neither practical nor necessary. Environmental impacts associated with the Proposed Route would be low and generally limited to temporary construction related impacts, which will be mitigated with proper stormwater controls, traffic control, and active communication to the public. Visually, the proposed structures along the Proposed Route will be approximately 25 feet taller, but similar in terms of the number of structures and overall visual character.

The Proposed Route for the Wooton – Stinnett 161 kV Transmission Line Rebuild Project is approximately 11 miles long and is largely rebuilt on existing centerline where practical, or adjacent to the existing ROW in areas where outages cannot be obtained or constraints were identified.

The Proposed Route is located in Leslie County, Kentucky and begins at the Company's Wooton Substation on Wooton Creek Road. The Proposed Route travels in a southwest direction along the existing centerline for approximately three miles until just north of State Route 699 (Cutshin Road) where the Proposed Route deviates from the existing centerline to avoid a residence located within the existing ROW. The Proposed Route then returns to centerline after approximately 0.3 mile and continues in a southwest trajectory for approximately one mile until the tap location to the Leslie Substation. The Leslie Extension (0.4 mile) is shifted southwest of the existing centerline and on new parallel ROW in order to accommodate outage constraints. After exiting the Leslie Substation, the Proposed Route continues slightly off-centerline for approximately 0.3 mile to accommodate the new location of the tap structure, before shifting back onto the existing centerline (after crossing Apple Orchard Road). The Proposed Route then continues for approximately four miles on centerline. The Proposed Route crosses the Daniel Boone National Forest on the existing transmission line centerline. The Proposed Route continues in a southwest trajectory for approximately 1.5 miles and ends north of the Stinnett Substation at the intersection of the Hazard – Pineville 161 kV Transmission Line and the Stinnett 161 kV Loop (Structure K131-91A).

Final 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 for the Project. The anticipated structure heights are approximately 85 feet tall.

The Proposed Route is approximately 11 miles long between the Wooton and Stinnett substations. No residences are located within the proposed ROW. One outbuilding located within the proposed ROW will require additional conversations with the landowner to potentially relocate the building. The Project will primarily cross landowners with existing easements, though supplemental easements may be required where the proposed route parallels the existing ROW or the ROW needs to be widened.

The Proposed Route crosses 61 parcels and 53 unique landowners within the ROW. One minor deviation from the existing centerline near Cutshin Road is required to avoid a residence within the ROW. Locations where the Proposed Route is off-centerline will not require ROW from new landowners not already crossed by the current 161 kV ROW. No new landowners are affected by the proposed centerline deviations. The Proposed Route uses existing ROW or parallels the existing ROW for approximately nine miles (about 83 percent of its total length), which minimizes impact to natural and human environments and reduces constructability challenges in a Project area populated with steep, mountainous terrain. The proposed structures for the rebuilt line will be taller to meet current engineering requirements but will be constructed near their existing locations in ROW or close to the existing ROW.

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

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Attachment A: Outreach Fact Sheet

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WOOTON-STINNETT TRANSMISSION LINE REBUILD PROJECT

Kentucky Power plans to upgrade the electric transmission grid in Leslie County. The Wooton - Stinnett Transmission Line Rebuild Project involves rebuilding about 11 miles of 161-kilovolt (kV) electric transmission line to enhance electric reliability for area customers.



WHAT

The Wooton-Stinnett Transmission Line Rebuild Project involves:

- Rebuilding approximately 11 miles of 161-kV transmission line between the Wooton Substation and the Stinnett Substation within or near existing right-of-way
- Upgrading equipment at the Wooton, Leslie and Stinnett substations

WHY

The project improvements:

- Allow crews to replace deteriorating wooden poles from the 1940s with steel H-frame and lattice tower structures to ensure continued safe operation of the transmission line.
- Reduce the need for more frequent equipment maintenance and improve electric service reliability for area customers.

WHERE

The project begins at the Wooton Substation on Wooton Creek Road in Wooton, continues south along Route 80 and connects with the Stinnett Substation near Greasy Creek Road in Stinnett.





PROJECT SCHEDULE

*Timeline subject to change.



TYPICAL STRUCTURES

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

Typical Structure Height: Approximately 85 feet* Typical Right-of-Way Width: Approximately 120 feet*



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

KENTUCKY POWER VALUES YOUR INPUT ABOUT THIS PROJECT. PLEASE SEND COMMENTS AND QUESTIONS TO:

JULIET CAPEHEART Project Outreach Specialist 833-760-0604 KentuckyPowerOutreach@aep.com KentuckyPower.com/WootonStinnett





Siting Study

Attachment B: Data Collection Summary

Data Source	Description		
GIS Data	See Attachment C.		
Field Increations	Siting Team members conducted field inspections throughout the Study Area and		
Field Inspections	along the proposed Study Segments in June 2021.		
	USFWS using the IPAC System [September 2021]		
	United Stated Forest Service coordination [June 2021]		
Federal Agencies	NPS National Register of Historic Places (2021)		
rederal Agencies	USGS database (2021)		
	• FEMA (2007)		
	Agency letters sent on July 8, 2021		
State Agencies	Kentucky division of Geographic Information (2019)		
State Agencies	Agency letters sent on July 8, 2021 and responses compiled in Attachment D.		
	Leslie County Officials – presentation to official by Siting personnel. [June 9,		
Local Agencies/Officials	2021].		
Local Agencies/ Officials	Leslie County PVA (2021)		
	Agency letters sent on July 8, 2021		
Other Stakeholders	LEECO (Pine Branch Coal Company) [August 2021]		
Other Stakeholders	ICG Natural Resources LLC [August 2021]		
	A news release was published July 8, 2021 to introduce the Project and the		
	virtual open house.		
	• Two Project mailings were sent to 176 landowner addresses on July 8 and		
	July 15, 2021 and included the following:		
Outreach Efforts	 A fact sheet, letter, detailed flyer about transmission line routing, 		
	and a comment card with a prepaid postage return envelope (July		
	8, 2021 mailing)		
	 A postcard (July 15, 2021 mailing) 		
	The Proposed Route announcement and mailing was sent to 176 landowners		
	on September 23, 2021.		
	Virtual Open House ran from July 8 – July 30, 2021, which included an interactive		
	overview map, fact sheet, updates and news releases, schedule information, and		
Open House(s)	photographs of representative structures. An in-person public open house was not		
	advisable during the COVID-19 pandemic given the travel restriction and social		
-	distancing recommendations and requirements of the Centers for Disease Control.		
Website and Mailed-In			
Comments reached out to the authors to address concerns or discuss the Project furth			

Attachment C. GIS Data Sources					
Siting Criteria	Source	Description			
	Land Use				
Number of parcels crossed by the ROW	Leslie County PVA (2021) <u>https://www.qpublic.net/ky/leslie/</u>	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 Digitized from Kentucky Division of Geographic Information (DGI) (2019) and field verified from points of public access	Count of the 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, 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			
Institutional uses (schools, places of worship and cemeteries) within 250 and	U.S. Geological Survey's GNIS (2021)	This dataset includes the locations of cemeteries, churches, hospitals, parks, and schools. Features within 250 and 1,000 feet of potential routes were field verified.			



Attachment C. GIS Data Sources			
Siting Criteria	Source	Description	
1,000 feet of the route			
centerline			
Airfield and heliports within	GNIS (2021) and the Federal	Distance from airfields and heliports	
one mile of the route	Aviation Administration (FAA)		
centerline	database (2021)		
	Natural Enviro	onment	
Forest clearing within the	Digitized based on Digitized from	Acres of forest within the ROW	
ROW	Kentucky Division of Geographic		
	Information (DGI) (2019)		
Number of National	USGS (2021)	The NHD is a comprehensive set of digital spatial data	
hydrography dataset (NHD)		prepared by the USGS that contains information about	
stream and waterbody		surface water features such as lakes, ponds, streams, rivers,	
crossings within the ROW		springs and wells	
Acres of National Wetland	U.S. Fish and Wildlife Service	The NWI produces information on the characteristics,	
Inventory (NWI) wetland	(USFWS) (2021)	extent, and status of the Nation's wetlands and deepwater	
crossings within the ROW		habitats	
Acres of 100-year floodplain	U.S. Federal Emergency and	Acres of 100-year floodplain within the ROW	
crossing within the ROW	Management Agency (FEMA)		
	(2007)		
Miles of public lands crossed	The Protected Areas Database of	Miles of federal, state and local lands crossed by the ROW	
by the route	the United States (PAD-US) (2020)		
Threatened, endangered, rare	US Fish and Wildlife Service	Known occurrences; locations of potential habitat based on	
or sensitive species	(USFWS) Information for Planning	land use	
occurrence within the Project	and Consultation (IPaC) (2021)		
vicinity			
Percent of hydric soils within	United States Department of	Percent of soil associations crossed by the ROW	
the ROW	Agriculture (USDA-NRCS), Natural	characterized as hydric, predominantly hydric, partially	
	Resources Conservation Service	hydric and non-hydric	



Attachment C. GIS Data Sources			
Siting Criteria	Source	Description	
	Soil Survey Geographic (SSURGO) Database (2019)		
Percent of prime farmland	USDA-NRCS SSURGO Database	Percent of soil associations crossed by the ROW	
soils and soils of statewide	(2019)	characterized as prime farmland or farmland of statewide	
importance within the ROW		importance	
	Technica		
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

Jurisdiction	Notes	Response Received	Prefix	Last Name	First Name	Title	Organization	Telephone Number	Email Address	Street Address	Address 2	City	State	Zipcode
						Supervisor, Hazard	Kentucky Department of Environmental							
		Mr. Hall Steven Regional Office		Regional Office	Protection (DEP), Division for Air Quality	606-435-6022	Steven.Hall@ky.gov	1332 KY Route 15		Hazard	KY	41701		
							Kentucky Department of Environmental Protection (DEP), Division of Waste							1
		Sandlin Alex Regional Office M		Management	606-435-6022	Alex.Sandlin@ky.gov	1332 KY Route 15		Hazard	КY	41701			
				Kentucky Department of Environmental	000-435-0022	Alex.sandim@ky.gov	1332 KT ROULE 15		Hazard	N	41/01			
			Mr.	Miller			Protection (DEP), Division of Water	606-435-6022	RobertL.Miller@ky.gov	875 S. Main Street		London	KY	40741
				in the second se	Nobert E.		Kentucky Heritage Council (KHC) Site	000 455 0022	nobertennieres Ny.gov	oro or main otheet		condon		40741
			Mr.	Laracuente	Nick	Program Administrator	Protection and Archaeology	502-892-3614	nicolas.laracuente@ky.gov	The Barstow House	410 High Street	Frankfort	KY	40601
							Kentucky Heritage Council (KHC) State							
			Mr.	Potts	Craig	Executive Director	Historic Preservation Office (SHPO)	502-564-7005	craig.potts@ky.gov	The Barstow House	410 High Street	Frankfort	KY	40601
							Kentucky Office of State Archaeology							
			Mr.	Kidder, Ph.D.	Barry	Data Manager	(KOSA)	859-257-1944	bb.kidder@uky.edu 10	1020 Export Street	Suite A	Lexington	KY	40504
							Kentucky Transportation Cabinet (KYTC)							Í
			Mr.	Peake	Danny	Director	Division of Environmental Analysis	502-564-7250	Danny.Peake@ky.gov	200 Mero Street		Frankfort	KY	40622
							Kentucky Transportation Cabinet (KYTC)							í l
			Mr.	Pelfrey	Mikael	Director	Division of Planning	502-564-7183	Mikael.Pelfrey@ky.gov	200 Mero Street	_	Frankfort	KY	40622
State			Mr.	Gray	Jim	Secretary	Kentucky Transportation Cabinet (KYTC)	502-564-5102	KYTC.OfficeoftheSecretary@ky.gov	200 Mero Street	-	Frankfort	KY	40622
					ol .	Chief District Engineer	Kentucky Transportation Cabinet (KYTC)	COC 500 0445	Chalad Januar Oliviana	600 D 11 1 4			101	40050
			Mr.	Jones, P.E.	Chris	Chief District Engineer	Department of Highways District 11 Kentucky Department of Natural Resources	606-598-2145	ChrisJ.Jones@ky.gov	603 Railroad Avenue		Manchester	KY	40962
			Mr.	Flore	Gordon R.	Commissioner	(DNR)	502-564-6940	gordonr.slone@ky.gov	300 Sower Boulevard	2nd Floor	Frankfort	КҮ	40601
			Mr.	Slone	Gordon K.	Director, Division of	Kentucky Department of Natural Resources	502-564-6940	gordoni sione@ky.gov	300 Sower Boulevard	2nd Floor	Frankfort	KI	40601
			Mr.	Howard	Brandon	Forestry	(DNR)	502-564-6940	brandon.howard@KY.gov	300 Sower Boulevard	2nd Floor	Frankfort	KY	40601
			IVII.	nowaru	Brandon	Director, Division of	Kentucky Department of Natural Resources	302-304-0340	brandon.noward@kr.gov	SUU SUWEI BUUIEvaru	2110 F1001	FIGINIOIL	K1	40001
			Ms.	Akers	Paulette	Conservation	(DNR)	502-564-6940	paulette.akers@ky.gov	300 Sower Boulevard	2nd Floor	Frankfort	KY	40601
							s /							
				Weese	Zeb	Executive Director	Office of Kentucky Nature Preserves (KNP)	502-782-7837	web.weese@ky.gov	300 Sower Boulevard	4th Floor	Frankfort	KY	40601
						Biological Assessment								
			Ms.	Hines	Martina	Branch Manager	Office of Kentucky Nature Preserves (KNP)	502-573-2886	martina.hines@ky.gov	300 Sower Boulevard	4th Floor	Frankfort	KY	40601
							Kentucky Department of Aviation (DOA)							
			Mr.	Royer	Randall S.	Acting Administrator	Airport Zoning Commission	502-782-4043	randall.royer@ky.gov	200 Metro Street		Frankfort	KY	40601
						51 · 51 · ·	Kentucky Department of Fish and Wildlife							í l
			Mr.	Russell	Jason	Fisheries Biologist	Resources (DFWS) Eastern District	606-889-1705	Jason.Russell@ky.gov	2744 Lake Road		Prestonsburg	KY	41653
							United States Department of Agriculture							í l
				c.	-	State Conservationist	(USDA) Natural Resources Conservation Services (NRCS) and Farm Service Agency	050 004 7050		774.0	s ::		КY	40500
-			Mr.	Stone	Greg	State Conservationist	United States Department of Agriculture	859-224-7350	greg.stone@usda.gov	771 Corporate Drive	Suite 300	Lexington	KY	40503
			Ms.	Wakefield	Debbie	State Executive Director	(USDA) Farm Service Agency Kentucky	859-224-7601	debbie.wakefield@usda.gov	771 Corporate Drive	Suite 205	Lexington	КY	40503
ł			1015.	wakenelu	Debble	State Executive Director	United States Department of Agriculture	833-224-7001	debble.wakeneid@usua.gov	771 Corporate Drive	Suite 205	Lexington	NI	40303
							(USDA) Farm Service Agency Breathitt							í l
			Ms.	Moore	Patricia	Program Technician	County Office	606-665-5105	KYJACKSON-FSA@ONE.USDA.GOV	100 Highway 15 S	Suite 129	Jackson	KY	41339
Federal						Eastern Kentucky Field	United States Army Corps of Engineers							[
				Unknown	Unknown	Office	(USACE) Louisville District	606-642-3208	CELRL.Door.To.The.Corps@usace.arm	845 Sassafras Creek Road		Sassafras	KY	41759
							U.S. Fish and Wildlife Service - Kentucky							
			Mr.	Andrews	Lee	Field Supervisor	Ecological Services	502-695-0468 ext. 46108	lee_andrews@fws.gov	3330 West Broadway	Room 265	Frankfort	KY	40601
							United States Forest Service (USFS), Daniel						_	1
							Boone National Forest, Redbird Ranger							1
			Mr.	Claybrook	Bobby	District Ranger	District United States Forest Service (USFS), Daniel	606-598-2192 ext. 101	robert.claybrook@usda.gov>	91 Peabody Road		Big Creek	KY	40914
			Mc	Polor	Tricia		Boone National Forest	606 508 2102 out 102	tricia.boles@usda.gov	01 Doobody Bood	1	Rig Crook	ку	40914
			Ms.	Boles		a . n . a . :		606-598-2192 ext. 102		91 Peabody Road		Big Creek		
Local				Turner	Shannon	County Road Supervisor	Leslie County Government	606-672-2720	Unknown	P.O. Box 619		Hyden	KY	41749
			Mr.	Lewis	William R.	County Judge Executive	Leslie County Government	606-672-3200	william.lewis@leslieky.com	P.O. Box 619	1	Hyden	KY	41749

Wooton - Stinnett Transmission Line Rebuild Project Agency Letter Contact List



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POWER ENGINEERS, INC.

7400 BEAUFONT SPRINGS DRIVE SUITE 316 RICHMOND, VA 23225 USA

July 8, 2021

[Name] [Title] [Company] [Address 1] [Address 2]

Subject: Kentucky Power Company: Wooton – Stinnett 161 Kilovolt (kV) Transmission Line Rebuild Project, Leslie County, Kentucky

[Insert Greeting Line]:

Kentucky Power Company is proposing the Wooton – Stinnett 161 kilovolt (kV) Transmission Line Rebuild Project (Project) in Leslie County, Kentucky. Kentucky Power Company contracted POWER Engineers, Inc. (POWER) to assist with siting efforts and prepare the Certificate of Public Convenience and Necessity application for filing with the Kentucky Public Service Commission. On behalf of Kentucky Power Company, POWER is requesting your input on the Project.

The Project will increase electric reliability in the area by rebuilding approximately 11 miles of 161 kilovolt (kV) transmission line between the existing Wooton, Leslie, and Stinnett substations and allow for the upgrade of aging infrastructure. Approximately five miles of transmission line will be rebuilt between the existing Wooton and Leslie substations, and approximately six miles of transmission line will be rebuilt between the Leslie and Stinnett substations. The existing transmission line will be rebuilt to 161 kV standards in or near the existing 100-foot right-of-way; however, the existing right-of-way will be expanded to 120 feet.

Kentucky Power Company and POWER have identified a study area as a one-mile buffer around the existing transmission line to be rebuilt, as shown in Attachment 1. Kentucky Power Company is interested to know if your agency has any specific concerns about the Project. We appreciate your input, and your comments will be incorporated into the filing with the Kentucky Public Service Commission. Please distribute this notification to staff members who may be involved with this Project for review and comment.

Should you have questions, please contact me via email at <u>shelley.campbell@powereng.com</u> or by phone at 609-570-2773. If you wish to speak to a Kentucky Power Company representative, please contact Emily Larson via email at <u>eslarson@aep.com</u> or by phone at 804-592-7317.

Sincerely,

Thilly Opp

Shelley Campbell POWER Engineers, Inc.

Enclosures: Attachment 1 – Project Study Area and Transmission Line to be Rebuilt

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ATTACHMENT 1

PROJECT STUDY AREA AND TRANSMISSION LINE TO BE REBUILT

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ATTACHMENT 1



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ANDY BESHEAR GOVERNOR

ENERGY AND ENVIRONMENT CABINET

OFFICE OF KENTUCKY NATURE PRESERVES

300 Sower Boulevard FRANKFORT, KENTUCKY 40601 Telephone: 502-573-2886 Telefax: 502-564-7484

July 16, 2021

REBECCA W. GOODMAN Secretary

> ZEB WEESE EXECUTIVE DIRECTOR

Cheryl Dombrowski POWER Engineers, Inc. 7400 Beaufont Springs Drive Richmond, VA 23225

Project:	Wooton - Stinnett ; 171170
Project ID:	22-0019
Project Type:	Standard (*customers will be invoiced), 1 mile buffer
	(\$120 fee)
Site Acreage:	3,249.72
Site Lat/Lon:	37.136187 / -83.319849
County:	Leslie
USGS Quad:	CUTSHIN; HAZARD SOUTH; HOSKINSTON; HYDEN EAST
Watershed HUC12:	Headwaters Middle Fork Kentucky River; Polls Creek- Cutshin Creek; Raccoon Creek; Stinnett Creek-Middle Fork Kentucky River; Wooton Creek-Cutshin Creek

Dear Cheryl Dombrowski,

This letter is in response to your data request for the project referenced above. We have reviewed our Natural Heritage Program Database to determine if any of the endangered, threatened, or special concern plants and animals or exemplary natural communities monitored by the Office of Kentucky Nature Preserves occur within your general project area. Your project does pose a concern at this time, therefore please see the attached reports and report key for more detailed information.

I would like to take this opportunity to remind you of the terms of the data request license, which you agreed upon in order to submit your request. The license agreement states "Data and data products received from the Office of Kentucky Nature Preserves, including any portion thereof, may not be reproduced in any form or by any means without the express written authorization of the Office of Kentucky Nature Preserves." The exact location of plants, animals, and natural communities, if released by the Office of Kentucky Nature Preserves, may not be released in any document or correspondence. These products are provided on a temporary basis for the express project (described above) of the requester, and may not be redistributed, resold or copied without the written permission of the Biological Assessment Branch (300 Sower Blvd - 4th Floor, Frankfort, KY, 40601. Phone: 502-782-7828).

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Project ID: 22-0019 July 16, 2021 Page 2

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed and new plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. We would greatly appreciate receiving any pertinent information obtained as a result of on-site surveys.

If you have any questions, or if I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Nour Salam Geoprocessing Specialist

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Standard Occurrence Report KNP monitored species within 1 Miles of Project Area

EO ID	Scientific Name	Common Name			SPROT USES		Last Obs Date	Precision	EO Rank	Lat / Lon	Directions	Habitat
7424	Appalachian mesophytic forest		GNR	\$4\$5	Ν		1991-02-21	S	B	37.1227 / -83.3651	Ridge and ravine W of Middle Kentucky River directly across from mouth of Hurricane Creek.	No active manipulation is required unless exotics are present. Management is primarily aimed at reducing effects of anthropogenic disturbances. This includes allowing succession to proceed naturally, leaving down and standing snags in place. Spread of exotics into these systems is best prevented by avoiding disturbance of the substrate i.e. through trail construction or timber management activities, and restricting visitation to foot trails. Monitoring tree fall gaps on an annual basis can help to ensure invasives do not establish by means outside of human disturbances.
14880	Cambarus taylori	Cutshin Crayfish	GNR	S3	S		2014-06-10	S	E	37.1663 / -83.2843	Wooton Creek at the Bailey Branch Rd. crossing. Ca 1.8 stream KM above mouth on Cutshin Creek at Wooton, KY.	
1206	Epioblasma triquetra	Snuffbox	G3	S1	E LE	Y	1974	G	H?	37.4931 / -83.5064	MIDDLE FORK KENTUCKY RIVER.	Occurs in medium-sized streams to large rivers generally on mud, rocky, gravel, or sand substrates in flowing water (Baker 1928, Buchanan 1980, Johnson 1978, Murrary and Leonard 1962, Parmalee 1967). Often deeply buried in substrate and overlooked by coll
2860	Epioblasma triquetra	Snuffbox	G3	S1	E LE	Y	1992-07-14	S	F	37.1203/ -83.3514	MIDDLE FORK KENTUCKY RIVER CA 0.15 STREAM MI DOWNSTREAM FROM COAL BRANCH.	Occurs in medium-sized streams to large rivers generally on mud, rocky, gravel, or sand substrates in flowing water (Baker 1928, Buchanan 1980, Johnson 1978, Murrary and Leonard 1962, Parmalee 1967). Often deeply buried in substrate and overlooked by
Standard Occurrence Report KNP monitored species within 1 Miles of Project Area

EO ID	Scientific Name	Common Name	GRank	SRank	SPROT	USESA	STWG	Last Obs Date	Precision	EO Rank	Lat / Lon	Directions	Habitat
													coll
13045	Etheostoma spilotum	Kentucky Arrow Darter	G2G3	S2	т	LT	Υ	1973-06-30	М	Н	37.1963 / -83.3405	Cutshin Creek, 1 mi E of Hyden and 3 mi from confluence with Middle Fork (plotted NE of Hyden) (020A), Raccoon Creek at SR 80 (plotted at Cutshin Creek at SR 80) (020B).	Clean bedrock, boulder, or coarse gravel of small to medium-size upland streams with slow to moderate current (Kuehne and Bailey 1961, Kuehne and Barbour 1983, Page 1983, Starnes and Etnier 1980, Burr and Warren 1986).
1949	Lethenteron appendix	American Brook Lamprey	G4	S2	т		Y	1958-06-10	G	н	37.0772 / -83.3925	GREASY CREEK.	Raceways, riffles, and flowing margins of permanently flowing streams and rivers with gravel, sand and sediment bottoms (Burr and Warren 1986). Ammocoetes live in sand and sediment of pools and backwaters.
886	Maccaffertium bednariki	A Heptageniid Mayfly	G2G4	S2	S			1998-08-26	S	D	37.1113 / -83.3581	MIDDLE FORK KY RIVER AT STINNETT- WENDOVER RD.	Slab rubble and gravelly substrates of moderate gradient streams with good water quality.
12499	Myotis leibii	Eastern Small-footed Myotis	G4	S2	Т	SOMC	Y	2006-07-27	S	E		Sensitive Element - Contact OKNP at naturepreserves@ky.gov	These bats use a wide variety of habitats for roosting. They occur in caves, mines, protected sites along clifflines, abandoned buildings, and are occasionally found roosting under rocks on the ground or on the floors of caves. Summer habitat is currently
15316	Myotis lucifugus	Little Brown Bat	G3	S2	т			2009-06-29	S	Е	37.0765 / -83.3752	Across lower Bad Creek (Top of hill)	
13964	Myotis septentrionalis	Northern Long-Eared Bat	G1G2	S1	Ε	LT		2011-08-04	S	E		Sensitive Element - Contact OKNP at naturepreserves@ky.gov	In winter, Northern Long- eared bats use caves, mine portals, abandoned tunnels, protected sites along clifflines and similar situations that afford protection from cold. They are easily overlooked as they often wedge themselves back into cracks in the wal

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Standard Occurrence Report KNP monitored species within 1 Miles of Project Area

					-			les of Floj	ootiinou				
EO ID	Scientific Name	Common Name	GRank	SRank	SPROT	USESA	STWG	Last Obs Date	Precision	EO Rank	Lat / Lon	Directions	Habitat
17177	Myotis septentrionalis	Northern Long-Eared Bat	G1G2	S1	Е	LT		2018-06-20	S	Е		Sensitive Element - Contact OKNP at naturepreserves@ky.gov	In winter, Northern Long- eared bats use caves, mine portals, abandoned tunnels, protected sites along clifflines and similar situations that afford protection from cold. They are easily overlooked as they often wedge themselves back into cracks in the wal
22780	Myotis septentrionalis	Northern Long-Eared Bat	G1G2	S1	E	LT		2006-07-25	S	F?		Sensitive Element - Contact OKNP at naturepreserves@ky.gov	In winter, Northern Long- eared bats use caves, mine portals, abandoned tunnels, protected sites along clifflines and similar situations that afford protection from cold. They are easily overlooked as they often wedge themselves back into cracks in the wal
22790	Myotis septentrionalis	Northern Long-Eared Bat	G1G2	S1	E	LT		2006-06-27	S	F?		Sensitive Element - Contact OKNP at naturepreserves@ky.gov	In winter, Northern Long- eared bats use caves, mine portals, abandoned tunnels, protected sites along clifflines and similar situations that afford protection from cold. They are easily overlooked as they often wedge themselves back into cracks in the wal
13369	Myotis sodalis	Indiana Bat	G2	S1S2	Ε	LE	Y	2009-06-30	S	U		Sensitive Element - Contact OKNP at naturepreserves@ky.gov	Primarily use caves for hibernacula, although they are occasionally found in old mine portals. During summer, colonies are found behind slabs of exfoliating bark of dead trees, often in bottomland or floodplain habitats, but also in upland situations.
17176	Nycticeius humeralis	Evening Bat	G5	S4	Ν		Y	2018-06-18	S	F?	37.0771 / -83.4083	Detector placed approx. 627m NW of US-421	The evening bat is a colonial species that roosts in trees and houses. It apparently migrates southward in winter.

Standard Occurrence Report KNP monitored species within 1 Miles of Project Area

					•			•				
EO ID	Scientific Name	Common Name	GRank	SRank	SPROT USESA	STWG	Last Obs Date	Precision	EO Rank	Lat / Lon	Directions	Habitat
17174	Perimyotis subflavus	Tricolored Bat	G2G3	S2	Т		2018-06-14	S	Е	37.0876 / -83.4152	Detector placed approx. 142m SE of KY-406	
17175	Perimyotis subflavus	Tricolored Bat	G2G3	S2	т		2018-06-18	S	F?	37.0771 / -83.4083	Detector placed approx. 627m NW of US-421	
22791	Perimyotis subflavus	Tricolored Bat	G2G3	S2	т		2006-06-27	S	F?	37.0956 / -83.3469	Mist net over roadway on ridgetop, east of Johns Creek and north-west of Hensley Branch	
353	Spilogale putorius	Eastern Spotted Skunk	G4	S2S3	S	Y	1983-02-05	G	NR	37.05 / -83.3047	REDBIRD WILDLIFE MANAGEMENT AREA.	Wooded areas, especially along clifflines. Will use abandoned buildings.

Managed Areas within 1 Miles of Project Area

MA ID	Managed Area Name	Unit Type	Owner Name	Managing Institution
546	Boone Forestlands Wildlife Management Area	State WMA	Begley Properties, LLC	Kentucky Department of Fish and Wildlife Resources
9	Daniel Boone National Forest	National Forest	U.S. Forest Service	U.S. Forest Service
126	Mary Breckinridge Memorial Nature Preserve	Private Preserve	The Nature Conservancy	The Nature Conservancy

Areas of Significant Biodiversity within 1 Miles of Project Area

Site ID	Site Name
363	Mary Breckinridge Memorial Preserve

Bat Habitats within 1 Miles of Project Area

Habitat	Species	USFWS
SUMMER 1	M. septentrionalis	Contact USFWS at (502) 695-0468 or KentuckyES@fws.gov

THESE DATA ARE VALID ONLY ON THE DATE ON WHICH THE REPORT WAS GENERATED. THESE DATA MAY ONLY BE USED FOR THE PROJECT NAMED ABOVE.

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College of Arts and Sciences Office of State Archaeology

July 15, 2021

Shelley Campbell Power Engineers, Inc. 7400 Beaufont Springs Drive Suite 316 Richmond, VA 23225

Re: Kentucky Power Company: Wooton - Stinnett 161Kilovolt (kV) Transmission Line Rebuild Project, Leslie County, Kentucky

Dear Shelley Campbell:

We have examined our records for the Wooton – Stinnett Rebuild Project and identified five known archaeological sites that are within or very close to the one-mile buffer around the existing transmission line. Please see the enclosed materials for more information.

The five identified sites have not been assessed for their eligibility to the National Register of Historic Places. As you proceed with your application for filing, you will need to consult with the Kentucky Heritage Council State Historic Preservation Office about the potential for adverse impacts to these sites as well as any unidentified archaeological sites in the un-surveyed portions of the study area.

If you have any question, please contact Dr. Philip Mink, Assistant Director for the Office of State Archaeology by phone or e-mail (859-257-8207, pbmink2@uky.edu).

Sincerely,

George M. Crothers, Ph.D Director, Office of State Archaeology

Enclosure: Confidential Site Location Information, Not for Public Release Cc: Philip Mink, Assistant Director, OSA

see blue.

1020A Export St. | Lexington, KY 40506 | P: 859-257-1944 | F: 859-323-9866 | www.uky.edu

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Kentucky Office of State Archaeology

University of Kentucky, 1020A Export Street, Lexington, KY 40506 Phone: (859)257-1944 Fax (859)323-9866 Email: ky-osa@uky.edu Confidential Information; Not for Public Release

Wooton-Stinnett Transmission Line Rebuild Project

Site Check Preformed On: 07/14/21

Site Number	Site Type	National Register Status
15Ls44	historic farm / residence	National Register status not assessed
15Ls45	historic farm / residence	National Register status not assessed
15Ls47	historic farm / residence	National Register status not assessed
15Ls48	rockshelter	National Register status not assessed
15Ls49	rockshelter	National Register status not assessed

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COMMONWEALTH OF KENTUCKY TRANSPORTATION CABINET transportation.ky.gov

Andy Beshear Governor

Jim Gray Secretary

July 20, 2021

Shelley Campbell Power Engineers 7400 Beaufont Springs Drive Suite 316 Richmond, VA 23225

Dear Ms. Campbell:

Thank you for your letter of July 8, 2021, regarding the Kentucky Power Company Transmission Line Rebuild Project in Leslie County. I am responding on behalf of Secretary Gray and the Cabinet.

After review of the letter and the quad sheet that was provided, the District would have the following comments. As with any utility improvements, any of this construction that would cross a state maintained road would need to have an application submitted for approval by using our standard encroachment permit, along with more detailed plans and information to be reviewed by District Staff. This will make sure that all KYTC requirements would be fulfilled. We have no known construction projects in this area.

We appreciate you reaching out to the Kentucky Transportation Cabinet in regards to Kentucky Power Company Transmission Line Rebuild Project in Leslie County and encourage you to contact us if you have any additional concerns or questions

Sincerely,

Christopher Jones Chief District Engineer District No. 11

C: Secretary Jim Gray

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TOURISM, ARTS AND HERITAGE CABINET

KENTUCKY HERITAGE COUNCIL

ANDY BESHEAR GOVERNOR

JACQUELINE COLEMAN

LT. GOVERNOR

THE STATE HISTORIC PRESERVATION OFFICE 410 HIGH STREET FRANKFORT, KENTUCKY 40601 (502) 564-7005 <u>www.heritage.ky.gov</u>

August 11, 2021

Ms. Shelley Campbell POWER Engineers, Inc. 7400 Beaufort Springs Drive, Suite 316 Richmond, VA 23225

Re: Kentucky Power Company, Wooten-Stinnett 161 kV Transmission Line Rebuild Project, Leslie County, Kentucky

Dear Ms. Campbell:

Thank you for your letter and enclosed information concerning the above-mentioned project, received July 13, 2021. We understand that Kentucky Power Cooperative proposes to rebuild approximately 11 miles of 161 kV transmission line between its Wooten and Stinnett substations in Leslie County, Kentucky.

After review of the proposed project information, we find that we do not have sufficient information to comment on this project.

We request additional information concerning the number and location of proposed workspaces for this project, access routes to proposed work spaces, and the methods for rebuilding the transmission line. It would be important for us to understand, for example, if some or all of the TL structures will be replaced. Once the proposed APE has been more fully considered and described, please also provide labels to indicate the amount of buffer being provided on, for instance, each side of the transmission line corridor (it appears to be 0.5 miles on each side of the centerline, but please confirm).

We would additionally appreciate clarification on the regulatory context of this project, and, specifically, which governmental agencies will approve this project. If federal approval or support (permit, loan, direct funding) is needed for the project, our office would review the project under Section 106 of the National Historic Preservation Act. If the project only requires state permitting, then our recommendations would be made pursuant to applicable state regulations.

We appreciate your help and look forward to receipt of the additional information. Should you have any questions concerning archaeological resources, feel free to contact Chris Gunn of my staff at <u>chris.gunn@ky.gov</u>. Questions concerning above-ground resources can be directed to Jennifer Ryall at jennifer.ryall@ky.gov.

Sincerely,

Potts

Executive Director and State Historic Preservation Officer



CP:cmg, jr KHC#62324, 62604

An Equal Opportunity Employer

MICHAEL E. BERRY SECRETARY

CRAIG A. POTTS EXECUTIVE DIRECTOR & STATE HISTORIC PRESERVATION OFFICER

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United States Department of Agriculture

September 17, 2021

Shelley Campbell POWER Engineers, Inc. 7400 Beaufont Springs Drive Suite 316 Richmond, VA 23225 shelley.campbell@powereng.com

RE: Kentucky Power Company: Wooton – Stinnett 161 Kilovolt (kV) Transmission Line Rebuild Project, Leslie County, Kentucky

Dear Ms. Campbell,

The Natural Resources Conservation Service (NRCS) has reviewed the information submitted for the subject project in Leslie County, 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 no prime farmlands or farmland of statewide importance would be converted and there would be no effects to other special environmental concerns under the purview of NRCS. However, if it is discovered that federal dollars will be used to irreversibly convert important prime farmlands 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,

C. GREGORY STONE State Conservationist

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

> Natural Resources Conservation Service 771 Corporate Drive, Suite 300, Lexington, KY 40503 859-224-7350 (phone) 1-855-768-4249 (fax) An Equal Opportunity Provider, Employer and Lender



Siting Study

Attachment E: Route Development Maps









Siting Study

Attachment F: Aerial Mapbook (Proposed Route)



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Dorothy-Lin		
		C. S. S. S. S.
Halle Pincethe Balle		
MAP 16		
 Proposed Route Wetland (NWI) Proposed ROW (120') Permitted Mine Boundary Existing AEP Structure Road Parcels (within 1,000' corridor) 	Leslie County, Kentucky	A Participant
— Stream (NHD)	NAD 1983 State Plane Kentucky South FIPS 1602 Feet Lambert Conformal Conic North American 1983 February 01, 2022	

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	MAP 17	
Harden and the second sec	1931	
	Coal Bra	anch
MAP 19		
 Proposed Route Stream (NHD) Permitted Mine Boundary Proposed ROW (120') Wetland (NWI) Map Tile Existing AEP Structure Waterbody (NHD) Parcels (within 1,000' corridor) Road 100-Year Floodplain (FEMA) 	Leslie County, Kentucky	

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		Leslie County,	Kentucky) 1983 State Plane Kentucky South	D 1983 State Plane Kentucky South 5 1602 Feet hoert Conformal Conic th American 1983	February 01, 2022
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The the terms of terms							
	Permitted Mine Boundary	Daniel Boone National Forest	Map Tile	Parcels (within 1,000' corridor)			
Stinet veroue B	b	am (NHD) 📃		Year Floodplain (FEMA)	real rioouplaili (reiviA)		
a Roth Wanter after	posed Route — F				Sung AEr Structure		
Mit	— P						

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Note: Red text indicates data has been updated from PVA data based on landowner contact and/or additional research.	
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PSC Filing ID	COUNTY PARCEL ID	OWNER	OWNER2	MAILING ADDRESS	CITY	STATE	ZIP	Crossed by 120' ROW	Within 400' Filing Corridor	COUNTY	DATE OF PARCELS
1	165-00-00-060.00 165-00-00-063.00	BAKER RUSSELL BAKER RUSSELL	NOLA HOWARD AND DON BAKER C/O HYDEN CITIZENS BANK	P O BOX 307 P O BOX 525	WOOTON WOOTON	KY KY	41776 41776	Yes Yes	Yes Yes	LESLIE	MARCH 2022 MARCH 2022
2	141-00-00-058.00	KENTUCKY POWER COMPANY	dio mileno brat	GENERAL DELIVERY	HAZARD	KY	41701	Yes	Yes	LESLIE	MARCH 2022
2	165-00-00-063.01	KENTUCKY POWER COMPANY		I RIVERSIDE PLAZA	COLUMBUS	OH	43215	Yes	Yes	LESLIE	MARCH 2022
3	165-00-00-058.00 165-00-00-057.00	LOVERIDGE LONNIE EVANS KEVIN	C/O LONNIE LOVERIDGE (DECEASED) DIANA LOVERIDGE	1948 NICKLAUS DR 3281 WOOTON RD	MELBOURNE	FL KY	32935 41776	Yes Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
4	165-00-00-055.00	PROKOP MICHAEL		17 STORY COURT	BAYONNE	NI	07002	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
6	165-00-00-035.00	MELTON RONNIE L & CRYSTAL		83 SECOND FORK RD	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022
7	165-00-00-034.03	CLARK FAMILY PRESERVATION TRUST	C/O WESLEY SCOTT CLARK TRUSTEE	2808 LAUREL POINT ISABEL RD	MOSCOW	OH	45153	Yes	Yes	LESLIE	MARCH 2022
7	165-00-00-034.03 165-00-00-034.05	CLARK FAMILY PRESERVATION TRUST DAN BAKER CEMETERY	C/O WESLEY SCOTT CLARK TRUSTEE	2808 LAUREL POINT ISABEL RD	MOSCOW	OH	45153	Yes No	Yes	LESLIE	MARCH 2022 MARCH 2022
9	165-00-00-036.00	SHEPHERD DENNIS & GENEVA SHEPHERD		P O BOX 182	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022
10	165-00-030.00	HOWARD MICKEY RAY		P O BOX 1509	HYDEN	KY	41749	Yes	Yes	LESLIE	MARCH 2022
11	165-00-00-023.00 165-00-00-021.00	MELTON GORDON & DOLLY HEIRS MOSLEY ROBERT M & NORMA HEIRS	C/O MISTY HOSKINS	P O BOX 65 2040 WOOTON ROAD	WOOTON WOOTON	KY KY	41776 41776	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
12	166-00-00-001.00	LAND RESOURCES & ROYALTIES LLC	C/O LAND RESOURCES & ROYALTIES LLC	PO BOX 264	FISHERS	IN	46038	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
13	166-00-00-001.00	LAND RESOURCES & ROYALTIES LLC	C/O LAND RESOURCES & ROYALTIES LLC	PO BOX 264	FISHERS	IN	46038	Yes	Yes	LESLIE	MARCH 2022
14	165-00-00-009.00 165-00-00-012.00	KILBURN JEFFREY & RHODA KILBURN CARLIN DALE		P O BOX 53 BOX 71	WOOTON WOOTON	KY KY	41776	No No	Yes	LESLIE	MARCH 2022 MARCH 2022
15	165-00-00-012.00	KILBURN CLINTON & ANN	479 BAILEY BR ROAD	P O BOX 753	WOOTON	KY	41776	No	Yes	LESLIE	MARCH 2022 MARCH 2022
17	154-00-00-016.00	DAVIDSON MANUEL & SHIRLEY ANN		BOX 32	WOOTON	KY	41776	No	Yes	LESLIE	MARCH 2022
17	154-00-00-017.00	DAVIDSON MANUEL & SHIRLEY ANN		BOX 32	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022
18	166-00-00-009.00 154-00-00-030.00	DAVIDSON HIRAM & FLORA HEIRS GRIFFITH ELBERT & SHENNIA	C/O SELDON DAVIDSON JR	BOX 214 1470 E RIVER ROAD	ATTICA	KY IN	41776 47918	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
20	154-00-00-031.00	CRISP SEATON (BUCK)-HEIRS-	& JOYCE	P O BOX 165	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
21	154-00-00-037.00	DAY JAMES & SHEILA		1581 CUTSHIN RD	WOOTON	KY	41776	No	Yes	LESLIE	MARCH 2022
22	154-00-00-032.00	COOTS LORENE		PO BOX 96	WOOTON	KY KY	41776	Yes	Yes	LESLIE	MARCH 2022
23 24	154-00-00-036.00 154-00-00-033.00	COOTS CARL HEIRS & CHARLENE FIELDS PEARL & LEONA H HEIRS	C/O JIMMY FIELDS	1552 CUTSHIN ROAD PO BOX 612	WOOTON HYDEN	KY KY	41776	No No	Yes	LESLIE	MARCH 2022 MARCH 2022
25	154-00-00-034.00	FIELDS MICHAEL	C/O SIMINI TILEEDS	P O BOX 736	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022
26	154-00-00-035.00	MINIARD BENTON PAUL		P O BOX 215	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022
27	140-00-00-047.00	DIXON JAMES & STELLA HEIRS MUNCY EDITH (DECEASED)	C/O RANDY DIXON C/O TERESA M CAUDILL	P O BOX 1808 P O BOX 1667	HYDEN HYDEN	KY KY	41749	Yes Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
28	140-00-00-045.00	SLONE RICHARD GLENN & GEORGE	C/O TERESA M CAUDILL	10870 PIQUA LOCKINGTON RD	PIQUA	OH	41749	Yes	Yes Yes	LESLIE	MARCH 2022 MARCH 2022
30	140-00-00-044.00	DIXON RANDY SCOTT		P O BOX 133	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022
31 32	141-00-00-057.02 155-00-00-033.01	LYONS LARRY W HEIRS HENSLEY ARVILE REX & CYNTHIA		P O BOX 909 P O BOX 811	HYDEN WOOTON	KY KY	41749 41776	No Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
32	141-00-00-059.05	ADAMS ROBERT & GERALDINE (DECEASED)	C/O CALIBER HOME LOANS INC	1 CORELOGIC DR	WESTLAKE	TX	76262	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
34	155-00-00-040.05	HENSLEY ROGER	ore of elbert home control into	P O BOX 129	HYDEN	KY	41749	Yes	Yes	LESLIE	MARCH 2022
35	155-00-00-040.06	HENSLEY TIMOTHY AARON	& BRENDA	P O BOX 672	WOOTON	KY	41776	Yes	Yes	LESLIE	MARCH 2022
36	141-00-00-057.01 141-00-00-116.00	PENNINGTON JUDY C	C/O BERNICE CALLAHAN	6373 W KY 80 P O BOX 1604	HAZARD HYDEN	KY KY	41701 41749	No Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
38	141-00-00-059.00	HENSLEY ARVEL HEIRS & RUTH		P 0 B0X 1004	WOOTON	KY	41776	No	Yes	LESLIE	MARCH 2022
39	141-00-00-059.03	COOK PATRICK KEVIN & TRACIE		PO BOX 2114	HYDEN,	KY	41749	No	Yes	LESLIE	MARCH 2022
40	141-00-00-117.00 141-00-00-117.00	ICG NATURAL RESOURCES LLC	ARCH RESOURCES	PO BOX 1135	LOUISA ST LOUIS	KY MO	41230 63141	No	Yes	LESLIE	MARCH 2022
40	141-00-00-103.06	BAKER GARY & TONYA		1 CITY PLACE DR SUITE 300 P O BOX 892	WOOTON	KY	41776	Yes Yes	Yes Yes	LESLIE	MARCH 2022 MARCH 2022
42	141-00-00-113.01	CLEVA JANE PENNINTON	C/O PATRICIA HOLLIIFIELD	1025 OAK HURST AVE	HAZARD	KY	41701	Yes	Yes	LESLIE	MARCH 2022
43	141-00-00-113.00	STIDHAM FELIX -HEIRS- & NOLA HEIRS ARCH FLINT RIDGE LLC	C/O PATRICA HOLLIFIELD C/O JEEE HOOPS	1025 OAKHURST AVE 1051 MAIN STREET	HAZARD MILTON	KY WV	41701 25541	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
44	141-00-00-117.11 141-00-00-112.00	JOHNSON JAMIE SCOTT	C/O JEFF HOOPS	1051 MAIN STREET 15 DOROTHY LANE	HYDEN	WV KY	25541 41749	Yes	Yes Yes	LESLIE	MARCH 2022 MARCH 2022
46	141-00-00-102.00	LEWIS RAY C HEIRS & CARL COPE	C/O CHARLES ANDREW WEDDLE	304 MAGNOLIA AVE	PANANMA CITY	FL	32401	Yes	Yes	LESLIE	MARCH 2022
47	127-00-00-002.00	ICG INC	C/O BLACK HAWK MINING LLC	3228 SUMMIT SQUARE PL, # 180	LEXINGTON	KY	40509	Yes	Yes	LESLIE	MARCH 2022
48	127-00-00-003.00 127-00-00-005.00	FELTNER MARLENE HOSKINS C W HEIRS PARTNERSHIP	C/0 GARY HOSKINS	P O BOX 706 739 LAKE LAURIE DR	HYDEN VALDOSTA	KY GA	41749 31605	Yes Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
49	127-00-00-005.00	HOSKINS C W HEIRS PARTNERSHIP HOSKINS C W HEIRS PARTNERSHIP	C/0 GARY HOSKINS	739 LAKE LAURIE DR	VALDOSTA	GA	31605	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
49	127-00-00-005.01	HOSKINS C W HEIRS PARTNERSHIP	C/0 GARY HOSKINS	739 LAKE LAURIE DR	VALDOSTA	GA	31605	Yes	Yes	LESLIE	MARCH 2022
49	127-00-00-005.00	HOSKINS C W HEIRS PARTNERSHIP	C/0 GARY HOSKINS WILLIAM R HOSKINS, JILL R & GREGORY FRITZ	739 LAKE LAURIE DR	VALDOSTA	GA	31605	Yes	Yes	LESLIE	MARCH 2022
50	127-00-00-004.00	BRANNON LUCILLE BETTY REVIS &	, DIANNA SKELLY	351 RACHEL LANE	MIDDLETOWN	OH	45042	Yes	Yes	LESLIE	MARCH 2022
51	127-00-00-007.00	MOUNTAIN PROPERTIES INC		122 ROY CAMPBELL DRIVE	HAZARD	KY	41701	Yes	Yes	LESLIE	MARCH 2022
52	127-00-00-021.00	HYDEN DEVELOPMENT EAST, LLC HYDEN DEVELOPMENT EAST, LLC	C/O LESTER AARON LEWIS C/O LESTER AARON LEWIS	P O BOX 925 P O BOX 925	HYDEN HYDEN	KY KY	41749 41749	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
52	127-00-00-022.00	MORGAN SHEILA	GIO LEGTER AMONT LEWIS	7200 LANGLEY CT	THE COLONY	TX	75056	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
54	127-00-00-025.00	MORGAN ARNOLD HEIRS & ROSE		P O BOX 272	HOSKINSTON	КY	40844	No	Yes	LESLIE	MARCH 2022
55	127-00-00-027.00	LOVE ETTA MORGAN & GABRILLA DX ASHER CARRIE HEIRS	C/O STEVE CAMPBELL	116 H HEATON RD 1367 HINES VALLEY RD	LENOIR CITY	TN TN	37643	Yes	Yes	LESLIE	MARCH 2022
56 57	127-00-00-020.00 109-00-00-043.00	ASHER CARRIE HEIRS KRAMER FAMILY HERITAGE TRUST	ROD MAGGARD	1367 HINES VALLEY RD 13221 SE 97TH TERRACE ROAD	LENOIR CITY SUMMERVILLE	TN FL	37771 34491	Yes Yes	Yes Yes	LESLIE	MARCH 2022 MARCH 2022
58	128-00-00-001.00	HOSKINS C W HEIRS LLC	C/0 GARY HOSKINS	739 LAKE LAURIE DR	VALDOSTA	GA	31605	No	Yes	LESLIE	MARCH 2022
59	109-00-00-025.00	U S FOREST SERVICE	TRACT 503	17000 BYPASS RD	WINCHESTER	KY	40391	Yes	Yes	LESLIE	MARCH 2022
60 61	109-00-00-024.00 109-00-00-023.00	HOSKINS CARL & LELA HEIRS ROBERTS BERNICE	C/O ROBERT C HOSKINS	P O BOX 182 P O BOX 153	ASHER	KY KY	40803 40868	Yes Yes	Yes Yes	LESLIE	MARCH 2022 MARCH 2022
61	109-00-00-023.00	FARMER NANCY -HEIRS-	C/O STEVEN FARMER	44911 HWY 101225	LAYTONVILLE	CA	40868	Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
63	109-00-00-014.00	MORGAN KENNETH		9803 WILDGINGER DR	FORT MEYERS	FL	33919	Yes	Yes	LESLIE	MARCH 2022
64	109-00-00-044.00	MOSLEY PHILLIP & ELISE		P O BOX 54	STINNETT	KY	40868	Yes	Yes	LESLIE	MARCH 2022
65	109-00-00-013.00	MORGAN EARL HEIRS	C/O BARRY & LORETTA NAPIER & JAMES MORGAN	4801 HICKORY HOLLOW LN	SHEPHERDSVILLE	КY	40165	No	Yes	LESLIE	MARCH 2022
66	109-00-034.00	BAKER LONIS & CAROL		2361 RIVER RD	HYDEN	KY	41749	No	Yes	LESLIE	MARCH 2022
67	109-00-00-045.00 CELL TOWER	MORGAN AUDREY CELL TOWER		P O BOX 297	HOSKINSTON	KY	40844	Yes	Yes	LESLIE	MARCH 2022
68	CELL TOWER 109-00-038.00	CELL TOWER MUNCY ROLAND HEIRS	C/O GREG MUNCY	P O BOX 115	KEAVY	KY	40737	No Yes	Yes	LESLIE	MARCH 2022 MARCH 2022
09	100-00-00-000.00	MONOT NOLAND HEING	O/O GILO MONOT	1 0 50/ 113	INCAV I	A1	40737	165	162	LLULIE	10011 2022



Kentucky Power 855 Central Avenue Ashland, KY 41101 kentuckypower.com

I RIVERSIDE PLAZA COLUMBUS, OH 43215

Notice Of Proposed Electric Transmission Line Construction Project

This is to notify you that Kentucky Power Company intends to file with the Public Service Commission of Kentucky an application seeking a certificate of public convenience and necessity in connection with its plans to rebuild approximately 11 miles of 161 kV transmission line within or near existing right-of-way in Leslie County, Kentucky ("Wooton – Stinnett 161 kV Transmission Line Rebuild Project" or the "Project").

This notice is being provided to you because the records of the Leslie County Property Valuation Administrator indicate the proposed transmission line may cross property owned by you.

1. The Project is expected to involve the following work:

(a) Rebuilding approximately 11 miles of 161-kV transmission line between the Wooton Substation and the Stinnett Substation within or near existing right-of-way in Leslie County, Kentucky;

(b) Upgrading equipment at the Wooton, Leslie, and Stinnett substations located in Leslie County, Kentucky, including:

(i) upgrading the relaying equipment to accommodate new optical ground wire ("OPGW") fiber protection at Wooton Substation; reconductoring the 161 kV bus, relaying upgrades, and other improvements at the Leslie Substation; and upgrading relaying to accommodate new OPGW fiber protection at the Stinnett Substation; and

(c) Reinforcing distribution lines between the Leslie and Stinnett substations in order to accommodate future distribution load during construction outages necessary for the Wooton – Stinnett 161 kV Transmission Line Rebuild Project while limiting direct impacts to the customers served.

- 2. Enclosed is a map showing the route of the proposed transmission line.
- 3. The Public Service Commission of Kentucky will process Kentucky Power's

application in Case No. 2022-00118. The address and telephone number of the Executive Director of the Public Service Commission of Kentucky are:

Executive Director Public Service Commission of Kentucky 211 Sower Boulevard P. O. Box 615 Frankfort, Kentucky 40602-0615 (502) 564-3940

Kentucky Power anticipates filing its application with the Public Service Commission of Kentucky on or after May 13, 2022. The application when filed may be viewed on the

Commission's website under Case No. 2022-00118 at:

https://psc.ky.gov/Case/SearchCases/2022.

4. You have the right to submit a timely written request for intervention in Case No. 2022-00118. The motion must be submitted to the Public Service Commission, 211 Sower Boulevard, P. O. Box 615, Frankfort, Kentucky 40602-0615, and must establish the grounds for your request to intervene, including your status and the nature of your interest in the proceeding. Please see 807 KAR 5:001, Section 4(11) for further information regarding the requirements and procedure for requesting intervention. 807 KAR 5:001, Section 4(11) may be accessed here: https://apps.legislature.ky.gov/law/kar/titles/807/005/001. If no request for intervention is received within 30 days of the filing of the application the Commission may take final action on the application

5. You also have the right to request a local public hearing regarding the Company's application in Case No. 2022-00118. The requirements for requesting a local public hearing are set forth in 807 KAR 5:120, Section 3. 807 KAR 5:120, Section 3 may be accessed here: https://apps.legislature.ky.gov/law/kar/titles/807/005/120/.

6. Written comments may also be filed at the above address, or by sending an e-mail to the Commission's public information officer at psc.info@ky.gov. The comments should reference Case No. 2022-00118.

Project updates and further information may also be found on the Company's website: https://aeptransmission.com/kentucky/Wooton-Stinnett/.

Case No. 2022-00118 Exhibit 15 Notice Mailed to Landowners and Verification Page 4 of 6

WOOTON-STINNETT TRANSMISSION LINE PROJECT





COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power)Company For A Certificate Of Public Convenience)And Necessity To Rebuild the Wooton-Stinnett)Portion of the Hazard-Pineville 161 kV Line)In Leslie County, Kentucky ("Wooton-Stinnett)161 kV Transmission Rebuild Project"))

Case No. 2022-00118

Verified Statement In Accordance With 807 KAR 5:120, Section 2(3)

Ryan M. Howell, Transmission Right of Way Agent Senior, Kentucky Power Company, being duly sworn, states as follows:

 The statements contained in this verification are based upon my personal knowledge, or my review of the records of Kentucky Power Company within the purview of my duties for the Company.

2. The records of the Property Valuation Administrator of Leslie County, Kentucky subject to the corrections and updates described in paragraph 3 below, indicate the filing corridor (including the currently proposed right-of-way) for Kentucky Power Company's Wooton-Stinnett 161kV Transmission Rebuild Project will cross the property owned by the persons listed on Exhibit A to this verification.

3. Certain of the addresses obtained from the records of the Property Valuation Administrator of Leslie County, Kentucky were determined through earlier mailings or other landowner contact efforts to be incorrect or otherwise undeliverable. Where the Company was able to determine the correct mailing addresses through landowner communication or other research, Kentucky Power used the updated addresses to ensure the landowners received the required notice

4. On April 28, 2022 the persons on Exhibit A were mailed, or delivered by handdelivery, the notice required by 807 KAR 5:120, Section 2(3). The form of the notice mailed or hand-delivered is attached to this verification as Exhibit B.

Further the affiant sayeth naught.

M. Howell

COMMONWEALTH OF KENTUCKY) \$\$ **COUNTY OF PIKE**

Subscribed and sworn to before me, a Notary Public in and before said County and State,

by Ryan M. Howell this the 2 day of May 2022.

Victure Stone ID#633748_ Notary Public

NOTARIZED PROOF OF PUBLICATION

COMMONWEALTH OF KENTUCKY

COUNTY OF

Before me, a Notary Public, in and for said county and state, this 2day of 1 LACHEL , 2022, came personally known to me, who, being duly sworn, states as follows: that she is the Advertising Assistant of the Kentucky Press Service, Inc.; that she has personal knowledge of the contents of this Affidavit; that the newspapers shown on Attachment No. 1 to this Affidavit published the Public Notice, on the dates shown thereon at the request of Kentucky Press Service, Inc. for Kentucky Power Company; that the form and content of the Notice submitted for publication to each paper is shown in Attachment No. 2 to this Affidavit; and that the Kentucky Press Service, Inc. has presented to Kentucky Power Company proof of these publications in the form of "tear

sheets" for retention in its files.

(II)

MSCA

J.

Notary Public My Commission Expires: (SEAL)

Signature

Case No. 2022-00118 Exhibit 16 Published Notice and Affidavit of Publications

	Legals	Legals	Legals	Legals	Legals	Legals	Legals .
	Public Notice	ADVERTISEMENT FOR BIDS	NOTICE OF BOND	Ion Project	nission Line Construction	Proposed Electric Trans	Notice Of Pr
Call Jenny	Notice is hereby given	Perry County Fiscal	RELEASE	11 miles of 161 kV transmis-	poses to rebuild approximately 1	er Company ("the Company") pro	Kentucky Power
for	that Tony and Gloria	Court	In accordance with KRS	t 161 kV Transmission Line	y, Kentucky ("Wooton - Stinnett	sting right-of-way in Leslie Coun	n line within or near existing
Special	Ison has filed an appli- cation with the Energy	Wells Motorsports	350.093, notice is here- by given that Liberty			oton – Stinnett 161 kV Transmis ntucky to the Wooton 161 kV Su	
Classified	and Environment Cab-	Business Expansion Project	Management, LLC, P.O.		nty, Kentucky.	project will be done in Leslie Cou	posed as a part of this pro
Advertisin	inet to build up creek bank. The property is	rioject	Box 100, Ary, Kentucky			also proposes to upgrade equip ying equipment to accommodate	
Rate!	located at 24 Destiny	Sealed bids will be ac-	41712 has applied for Phase I Bond Release			the 161 kV bus, relaying upgra mmodate new OPGW fiber prot	
(606) 436-57	Lane Viper, Ky 41774,	cepted for the follow- ing equipment for the	on Permit Number 897-	ccommodate future distribu-	tinnett substations in order to ac	on lines between the Leslie and	ses to reinforce distribution
(000) 100 0	3 ½ miles from Route 7, Viper, KY, Middle Fork	bid package as outlined	8065, which was last issued on May 20, 2019.	hission Line Rebuild Project	oton - Stinnett 161 kV Transm	on outages necessary for the W	n load during construction ille limiting direct impacts to
	Maces Creek. Any	below by the Perry County Fiscal Court at	The application covers			161 kV transmission line will b	The proposed 1
1000	comments or objections concerning this applica-	P.O. Drawer 210, 481	an area of approximate-			Power proposes to slightly wide le of the line), to 120 feet (60 f	
and the second second second	tion shall be direct to:	Main Street, Hazard,	y 334.64 acres and is located approximately	e required to obtain a wider	. Kentucky Power also may be	ns for a 161 kV transmission lin	andards and specifications
ADVERTIS	Kentucky Division of Water, Surface Water	Kentucky, 41701 until Monday, May 9, 2022	1.5 miles northwest of	y also proposes a slight shift	ransmission line. The Company	et (200 feet on either side of the efficiently operate the proposed	is required to safely and el
VAIID	Permit Branch, Flood	at 10:00 a.m. Sealed	Bulan in Perry County.			n centerline to avoid a residence d to alter the proposed centerline	
GARAGE SA	Plain Management Sec-	bids may be mailed in or dropped off but must	The permit is approxi-	255.	t affect constructability and acce	uring survey and construction th	conditions discovered duri
	tion 300 Sower Bou- levard Frankfort, Ken-	be received by the dead-	mately 1.0 miles north of KY 80's junction with			er plans to file an application with ate of public convenience and ne	
E E E E E E E E E E E E E E E E E E E	tucky 40601. Phone:	line.	KY 1146 and is located			uild Project. The application and	Transmission Line Rebuil
	(502) 564-3401. 3x-4/28-5/12-p-gi-11	Bid Opening will be held	0.01 miles east of Harris			d person under KRS 278.020(9	
and the second	5X-4/20-5/12-p-gi-11	immediately following	Branch. The operation is located on the Hazard	ounty where the transmission	local public hearing in Leslie Cou	on Line will cross, may request a t must be in writing and should b	innett 161 kV Transmission
	1.	the scheduled closing time for reception of	North U.S.G.S.7 1/2 min-	or a local public hearing must	ky 40602-0615. The request for	, P.O. Box 615, Frankfort, Kentu	on, 211 Sower Boulevard, F
P	Pass th	bids and read aloud via	ute quadrangle.	in is filed. The request for a		ive Director no later than thirty of comply with the requirements of	
	1 0122 61	Zoom Video Conference from the Perry County	The bond now in effect		the Commission proceeding to	seek to intervene as a party i	A person may s
man	Middle	Fiscal Court Office on	on Increment #1 of per-			ely written request for intervention R 5:120, Section 3(3).	ection 4(11) and 807 KAR 5
III CIBLO O	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Monday, May 9, 2022	mit 897-8065 is a Sure- ty Bond in the amount			n and other filings in connection b. 2022-00118 when filed. Proje	
	A state of the state of the	at 10:00 a.m. Bidders can attend the bid open-	of seven hundred	on may also be found on the	and the second	uckyPower.com/WootonStinnett	ompany's website: Kentuc
	and the second second	ing via Zoom at the link	ninety-three thousand eight hundred dollars	and the second second	in below.	proposed route for the line is sho	And the second second second second second
		below: Zoom Link: https://us06web.zoom.	(\$793,800.00), of which	KENHTUCKY		-STINNETT	WOOTON-
	1 Commence	us/j/818057556067p-	sixty percent (60%) of the bond is being re-	John Town	L. C.	ON LINE PROJEC	FRANSMISSIO
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	Remarking C.L.	1-646-876-9923	filling, final grading, seeding and mulching	2 mg	woolen Extent		10
Kin Lang	and the second second	Bid Package: Rotary Tube Plasma Cutter and	and planting of trees	15	27/	MIDEN	and the second
	n	Software	completed in winter 2021.	- Ly	Kan	No Comment	
	He was	Bidders should contact		him	7 5	7. 1	
	States of the states of	Angelia Hall or Fitz	Written comments, ob- jections, and requests	And the	Ę	- (- 1	
0	Get th	Steel at the Perry Coun-	for a public hearing or	Mr.	2	1	LINE REAL PROPERTY
C	act fill	ty Fiscal Court for a Bid Package/Specifications.	informal conference	Contraction Services		5/	
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rice	Best P	ardperrygrants@yahoo. com or by calling 606-	Field Services, 300	ACTIONS TO HE DOLLACES N	· EX STAD TRANSMOSCH LINE TO BE REMANT IN GRAD		1-18
-	0 80	436-4513. Contact Fitz	Sower Blvd. 2nd Floor, Frankfort, Kentucky		- (0)-045		15
ur Car!	for Yo	Steel at fitzsteele84@	40601, by Monday, June				
and the second of the		gmail.com or by calling 606-436-0803.	20, 2022.	Sector Sector Sector		O'Lund D'	1.0
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BOUNDLESS ENERGY"

News from Kentucky Power

MEDIA CONTACT: Cindy Wiseman External Affairs and Customer Service Cell: 606-585-6847 cgwiseman@aep.com; www.kentuckypower.com

FOR IMMEDIATE RELEASE

KENTUCKY POWER PLANS POWER GRID IMPROVEMENTS IN LESLIE COUNTY

ASHLAND, Ky., July 8, 2021 – Kentucky Power officials plan upgrades to the electric transmission system in Leslie County to enhance electric service reliability for area customers. The Wooton-Stinnett Transmission Line Rebuild Project involves:

- Rebuilding approximately 11 miles of 161-kilovolt transmission line between the Wooton Substation and the Stinnett Substation
- Upgrading equipment at the Wooton, Leslie, and Stinnett Substations

The project allows crews to replace aging wooden poles dating from the 1940s with steel Hframes and lattice towers. Installing modern equipment and upgrading facilities reduces the need for frequent equipment maintenance and improve electric service reliability for the surrounding communities.

The project begins at the Wooton Substation located off of Wooton Creek Road in Wooton, continues south along Route 80, and connects with the Stinnett Substation near Greasy Creek Road in Stinnett.

The Kentucky Power project team invites landowners in the project area to visit <u>www.KentuckyPower.com/WootonStinnett</u> to learn more about the project, enter a virtual open house and provide feedback by Friday, July 30.

Area landowners can expect to receive a packet in the mail that includes additional project details and a comment card they can return with their feedback.

Company officials plan to file an application with the Kentucky Public Service Commission in the fall of 2021. If the project receives approval, company representatives expect construction to begin in spring 2023 and conclude late 2024.

Kentucky Power, with headquarters in Ashland, provides electric service to about 165,000 customers in all or part of 20 eastern Kentucky counties, including Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. Kentucky Power is an operating company in the American Electric Power system, one of the largest electric utilities in the U.S., delivering electricity and custom energy solutions to nearly 5.4 million regulated customers in 11 states. AEP also owns the nation's largest electricity transmission system. AEP's headquarters are in Columbus, Ohio.

Filing Requirements

Citation	Requirement	Location
807 KAR 5:001, Section 14(1)	Applicant And Project Information.	Application ¶¶ 1-4; pages 2- 3. Generally, <i>Passim</i> .
807 KAR 5:001, Section 14(2)	Corporate Information.	Application ¶ 1 and footnote; Application Exhibit 1.
807 KAR 5:001, Section 14(3)	Limited Liability Company Information.	Not Applicable.
807 KAR 5:001, Section 14(4)	Limited Partnership Information	Not Applicable.
807 KAR 5:001, Section 15(1)	Information Required For Certificates Of Public Convenience And Necessity To Bid On Franchises.	Not Applicable.
807 KAR 5:001, Section 15(2)	Requirements of 807 KAR 5:001, Section 14.	See Above.
807 KAR 5:001, Section 15(2)(a)	Facts Demonstrating The Proposed Construction Is Required By The Public Convenience And Necessity.	Testimony of Nicholas C. Koehler at 9-12, 14-15; Application ¶¶ 54-66; and Application Exhibits 5, 19, 20, and 21.
807 KAR 5:001, Section 15(2)(b)	Franchises And Permits.	Testimony of Emily S. Larson at 15-16; Application ¶¶ 50-53; Application Exhibit 13.
807 KAR 5:001, Section 15(2)(c)	Proposed Route.	Testimony of Brian K. West at 7-8; Testimony of Emily S. Larson at 11-13; Application ¶¶ 13, 36-43; and Application Exhibits 2, 4, and 13.
807 KAR 5:001, Section 15(2)(c)	Description Of Construction.	Testimony of Nicholas C. Koehler at 12-14; Testimony of Brian K. West at 5-6, 11; Application ¶¶ 13-25, 71; and Application Exhibits 6-12.

Citation	Requirement	Location
807 KAR 5:001, Section 15(2)(c)	Competitors.	Application ¶ 66.
807 KAR 5:001, Section 15(2)(d)(1)	Map To Suitable Scale Showing Route And Neighboring Facilities.	Application Exhibit 4. ¹
807 KAR 5:001, Section 15(2)(d)(2)	Plans And Specifications.	Application Exhibits 6-12. ²
807 KAR 5:001, Section 15(2)(e)	Manner Of Financing.	Testimony of Brian K. West at 13-14; Application ¶ 33.
807 KAR 5:001, Section 15(2)(f)	Annual Operating Expenses.	Application ¶ 34.
807 KAR 5:001, Section 15(3)	Extensions In Ordinary Course.	Not Applicable.
807 KAR 5:001, Section 15(4)	Renewal Applications.	Not Applicable.
807 KAR 5:120, Section 1	Notice Of Intent Conforming To The Requirements Of 807 KAR 5:120, Section 1(2).	Filed Of Record On April 13, 2022.
807 KAR 5:120, Section 2(1)(a)	All Information Required By 807 KAR 5:001, Section 14.	See 807 KAR 5:001, Section 14 Above.
807 KAR 5:120, Section 2(1)(b)	All Information Required By 807 KAR 5:001, Section 15(2)(a)-(c) And 807 KAR 5:001, Section 15(2)(e)-(f).	See 807 KAR 5:001, Section 15(2)(a)-(c) And 807 KAR 5:001, Section 15(2)(e)-(f) Above.
807 KAR 5:120, Section 2(2)(a)	Map Showing Centerline, Right- Of-Way, And Boundaries Of Properties Crossed By Right-Of- Way.	Application Exhibit 4.
807 KAR 5:120, Section 2(2)(b)	Sketches Of Typical Support Structures.	Application Exhibits 6-12.

¹ The maps show a preferred centerline and are not an actual design. Kentucky Power will supplement its filing with maps certified in accordance with KRS 322.340 once the project is in service.

² The structure exhibit drawings are conceptual representative sketches and not actual designs. Kentucky Power will supplement its filing with plans certified in accordance with KRS 322.340 once the project is in service.

Citation	Requirement	Location
807 KAR 5:120, Section 2(2)(c)	Separate Map Showing Alternate Routes Considered	Application Exhibit 13, Attachment E, Map 2. <i>See</i> <i>generally</i> Testimony of Emily S. Larson at 7-8; Application ¶¶ 28-30, 63-64.
807 KAR 5:120, Section (2)(3)	Verified Statement Concerning Mailed Notice To Property Owners.	Application Exhibit 14; Application Exhibit 15.
807 KAR 5:120, Section (2)(4)	Sample Copy Of Notices Conforming To 807 KAR 5:001, Section 120, Section (2)(3).	Application Exhibit 15.
807 KAR 5:120, Section (2)(5)	Statement Of Publication Of Notice Of Proposed Electric Transmission Line Project	Application Exhibit 16; Also Included As Part Of Exhibit 16 Is An Affidavit Of Publication.
807 KAR 5:120, Section (2)(6)	Copy Of Published Notice Of Proposed Electric Transmission Line Project	Application Exhibit 16.
807 KAR 5:120, Section (2)(7)	Capital Outlay	Application ¶¶ 32-33; Testimony of Brian K. West at 13-14.



AEP Transmission Planning Criteria and Guidelines for End-Of-Life and Other Asset Management Needs

December 2020

Document Control

Document Review and Approval

Action	Name(s)	Title
Prepared by:	Jomar M. Perez	Manager, Asset Performance and Renewal
Approved by:	Nicolas Koehler	Director, East Transmission Planning
Approved by:	Wayman L. Smith	Director, West Transmission Planning
Approved by:	Kamran Ali	Managing Director, Transmission Planning

Review Cycle

Quarterly	Semi-annual	Annual	As Needed
			х

Revision History

Version	Revision Date	Changes	Comments
1.0	01/04/2017	N/A	1 st Release
2.0	1/18/2018	Format Update	2 nd Release
3.0	11/09/2018	Content Additions	3 rd Release
4.0	12/14/2020	End-Of-Life Criteria	4 th Release

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1.0 Introduction

The American Electric Power (AEP) transmission system consists today of approximately 40,000 miles of transmission lines, 3,600 stations, 5,000 power transformers, 8,000 circuit breakers, and operating voltages between 23 kV and 765 kV in three different RTOs – the Electric Reliability Council of Texas (ERCOT), the PJM Interconnection (PJM), and the Southwest Power Pool (SPP), connecting over 30 different electric utilities while providing service to over 5.4 million customers in 11 different states.

AEP's interconnected transmission system was established in 1911 and is comprised of a very large and diverse combination of line, station, and telecommunication assets, each with its own unique installation date, design specifications, and operating history. As the transmission owner, it is AEP's obligation and responsibility to manage and maintain this diverse set of assets to provide for a safe, adequate, reliable, flexible, efficient, cost-effective and resilient transmission system that meets the needs of all customers while complying with Federal, State, RTO and industry standards. This requires, among other considerations, that AEP determine when the useful life of these transmission assets is coming to an end and when the capability of those assets no longer meets current needs, so that appropriate improvements can be deployed. AEP refers to these issues as transmission owner identified needs that address condition, performance and risk. AEP identifies these needs through the transmission planning criteria and guidelines outlined in this document. Specifically, this document constitutes the AEP transmission planning criteria and guidelines for End-Of-Life and other asset management needs as required in the FERC-approved Attachment M-3 to the PJM Tariff. AEP does not address any End-Of-Life or other asset management needs through the baseline planning criteria AEP files with its FERC Form 715.

AEP's transmission owner identified needs must be addressed to achieve AEP's obligations and responsibilities. Meeting these obligations requires that AEP ensures the transmission system can deliver electricity to all points of consumption in the quantity and quality expected by customers, while reducing the magnitude and duration of disruptive events. Given these considerations, criteria and guidelines are necessary to identify and quantify needs associated with transmission facilities comprising AEP's system. AEP identifies the needs and the solutions necessary to address those needs on a continuous basis using an in-depth understanding of the condition of its assets, and their

associated operational performance and risk, while exercising engineering judgment coupled with Good Utility Practices [1].

Whereas the End-Of-Life needs, as defined in the FERC-approved Attachment M-3 to the PJM Tariff, are limited to transmission facilities rated above 100 kV, these criteria and guidelines apply to all transmission voltages that comprise the AEP transmission system, including those defined as End-Of-Life needs in the FERC-approved Attachment M-3 to the PJM Tariff. In addition, projections of candidate End-Of-Life needs that result from the process outlined in these AEP criteria and guidelines will be provided to PJM in accordance with the provisions in the FERC-approved Attachment M-3 to the PJM Tariff. Current End-Of-Life and other asset management needs will be vetted with stakeholders in accordance with the provisions in the FERC-approved Attachment M-3 to the PJM Tariff.

Addressing these owner identified transmission system asset management needs, as they pertain to condition, performance and risk, will result in the following benefits to customers:

- Safe operation of the electric grid.
- Reduction in frequency of outage interruptions.
- Reduction in duration of outage interruptions.
- Improvement in service reliability and adequacy to customers.
- Reduction of risk of service disruptions (improved resilience) associated with man-made and environmental threats.
- Proactive correction of reliability constraints that stem from asset failures.
- Effective utilization of resources to provide efficient and cost-effective service to customers.

2.0 Process Overview

AEP's transmission owner needs identification criteria and guidelines are used for projects that address equipment material conditions, performance, and risk. AEP uses the three-step process shown in Figure 1 and discussed in detail in this document to determine the best solutions to address the transmission owner identified needs and meet AEP's obligations and responsibilities. This process is completed on an annual basis. In developing the most efficient and cost-effective solutions, AEP's long-term strategy is to pursue holistic transmission solutions in order to reduce the overall AEP transmission system needs.

Figure 1 – AEP Process for Identifying and Addressing Transmission Asset Condition, Performance and Risk Needs

Needs Identification
Asset Condition
Historical Performance
Risk

Solution Development

Solution Scheduling

System Impacts
Outage Availability
Siting Requirements
Resource Availability

3.0 Step 1: Needs Identification

Needs Identification is the first step in the process of determining system and asset improvements that help meet AEP's obligations and responsibilities. AEP gathers information from many internal and external sources to identify assets with needs. A collective evaluation of these inputs is conducted and considered, and thus, individual thresholds do not apply. In addition, factors can change over time. A sampling of the inputs and data sources is listed below in Table 1.

Internal, External, or Both	Inputs	Examples
	Reports on asset conditions	Transmission line and station equipment deterioration identified during routine inspections (pole rot, steel rusting or cracking)
	Capabilities and abnormal conditions	Relay misoperations; Voltage unbalance
Internal	Legacy system configurations	Ground switch protection schemes for transformers;; Transmission Line Taps without switches (hard taps); Equipment without vendor support
	Outage duration and frequency	Outages resulting from equipment failures, misoperations, or inadequate lightning protection
	Operations and maintenance costs	Costs to operate and maintain equipment
	Regional Transmission Operator (RTO) or Independent System Operator (ISO) issued notices	Post Contingency Local Load Relief Warnings (PCLLRWs) issued by the RTO that can lead to customer load impacts
External	Stakeholder input	Input received through stakeholder meetings, such as PJM's Sub Regional RTEP Committee (SRRTEP) meetings or through the AEP hosted Annual Stakeholder Summits
	Customer feedback	Voltage sag issues to customer delivery points due to poor sectionalizing; frequent outages to facilities directly affecting customers
	State and Federal policies, standards, or guidelines	NERC standards for dynamic disturbance recording
	Environmental and community impacts	Equipment oil/gas leaks; facilities currently installed at or near national parks, national forests, or metropolitan areas
Both	Standards and Guidelines	Minimum Design Standards, Radial Lines, Three Terminal Lines, Overlapping Zones of Protection
	Safety risks and concerns	Station and Line equipment that does not meet ground clearances; Facilities identified as being in flood zones; New Occupational Safety and Hazards Administration (OSHA) regulations

Table 1 – Inputs Considered by AEP to Identify Transmission System Needs

These inputs are reviewed and analyzed to identify the transmission assets that are exhibiting unacceptable condition, performance and risk, and thus, must be addressed through the FERC-approved Attachment M-3 planning process.

3.1 Methodology and Process Overview

The AEP transmission system is composed of a very large number of assets that provide specific functionality and must work in conjunction with each other in the operation of the grid. These assets have been deployed over a long period of time using engineering principles, design standards, safety codes, and Good Utility Practices that were applicable at the time of installation and have been exposed to varying operating conditions over their life. The Needs Identification methodology is shown below in Figure 2. AEP addresses the identified needs considering factors including severity of the asset condition and overall system impacts. These are subsequently evaluated versus constraints such as outage availability, siting requirements, availability of labor and material, constructability, and available capital funding in determining the timing and scope of mitigation.





It is AEP's strategy and goal to develop and provide the more efficient, cost-effective, safe, reliable, resilient, and holistic long-term solutions for the identified needs.

3.2 Asset Condition (Factor 1)

The Asset Condition assessment gathers a standard set of physical characteristics associated with an asset or a group of assets. The set of data points recorded is determined based on the asset type and class. Information assembled during the Asset Condition assessment is used to show the historical

deterioration, current condition, and future expectation of the asset or group of assets on the AEP system.

AEP annually assembles a list of reported condition issues for all of its assets in its system. A detailed follow-up review is conducted to determine if a transmission asset is in need of upgrade and/or replacement. Additionally, this Asset Condition review is used to determine an adequate scope of work required to mitigate the risk associated with a facility's performance and its identified issues. This level of risk is determined through the Future Risk assessment (Factor 3).

Beyond physical condition, AEP's ability to restore the asset in case of a failure is also considered. This is referred to as the future probability of failure adder. Typically, assets that are no longer supported by manufacturers or lack available spare parts are assigned a higher probability of failure adder.

To perform condition assessments, AEP classifies its Transmission assets in two main categories: Transmission Lines and Substations.

3.2.1 Transmission Line Considerations

Design Portion

- A. Age (Original Installation Date)
- B. Structure Type (Wood, Steel, Lattice)
- C. Conductor Type (Size, Material & Stranding)
- D. Static Wire Type (Size & Material)
- E. Foundation Type (Grillage, Direct Embed, Caisson, Guyed V, Drilled Pier etc.)
- F. Insulator Type (Material)
- G. Shielding and Grounding Design Criteria (Ground Rod, Counterpoise, "Butt Wrap" etc.)
- H. Electrical Configuration
 - a. Three Terminal Lines
 - b. Radial Facilities
- I. NESC Standards Compliance
 - a. Structural Strength (NESC 250B, 250C & 250D Compliance)
 - b. Clearances (TLES-047 Compliance)

J. Easement Adequacy (Width, Encroachments, Type; etc.)

Physical Condition

- A. Open Conditions (existing and unaddressed physical conditions associated with a Transmission Line component)
- B. Closed Conditions (previously addressed physical conditions associated with a Transmission Line component)
- C. Emergency Fixes (History of emergency fixes)
- D. Accessibility (Identified areas of difficult access)

3.2.2 Substation Considerations

- A. Transformers
 - a. Manufacturer
 - b. Manufacturing Date
 - c. In Service Date
 - d. Load Tap Changer Type & Operation History (if applicable)
 - e. Dissolved Gas Analysis
 - f. Bushing Power Factor
 - g. Through Fault Events (Duval Triangles)
 - h. Moisture Content (Oil)
 - i. Oil Interfacial Tension
 - j. Dielectric Strength
 - k. Maintenance History
 - 1. Malfunction Records
- B. Circuit Breakers
 - a. Manufacturer & Type
 - b. Manufacturing Date
 - c. In Service Date
 - d. Interrupting Medium
 - e. Fault Operations
 - f. Switched Operations

- g. Spare Part Availability
- h. Maintenance History
- i. Malfunction Records
- j. Breaker Type Population
- C. Secondary/Auxiliary Substation Equipment*
 - a. Station Batteries
 - b. Control House
 - c. Station Security
 - d. Station Structures
 - e. Capacitor Banks
 - f. Bus, Cable and Insulators
 - g. Disconnect Switches
 - h. Station Configuration
 - i. Station Service
 - j. Relay Types
 - k. RTU Types
 - 1. Voltage Sensing Devices

*AEP substation inspections include assessments of secondary/ancillary equipment. If needed, upgrades to these components are typically included in the scope of projects addressing major equipment and may not necessarily drive stand-alone projects.

3.3 Historical Performance (Factor 2)

AEP's Historical Performance assessment quantifies how an asset or a group of assets has historically impacted the Transmission system's reliability and Transmission connected customers, helps identify the primary contributing factors to a facility's performance, and baselines the outage probability used in our Future Risk analysis. The metrics used as part of this historical performance assessment include:

- A. Forced Outage Rates
- B. Manual Outage Rates
- C. Outage Durations (Forced Outage Duration in Hours)
- D. System Average Interruption Indices (T-SAIDI, T-SAIFI, T-SAIFI-S, T-MAIFI)

- E. Customer Minutes of Interruption (CMI)
- F. Customer Average Interruption Indices (IEEE SAIDI, CAIDI & SAIFI)
- G. Number of Customers Interrupted (CI)

AEP utilizes this standard set of metrics as a means to quantify the historical performance of an asset. These historical performance metrics allow AEP to further investigate assets that have historically impacted customers the most.

Due to the vast size of the AEP operating territory covering 11 states, AEP segments its needs into seven distinct operating company regions and six voltage classes. This segmentation ensures that variations in geography with respect to vegetation, weather patterns, and terrain can be accounted for within the process of identifying needs for each operating company area. In addition to customers of AEP operating companies, consideration for retail customers that are served at non-AEP wholesale customer service points is also included. In order to account for customers served behind wholesale meter points, AEP gathers information from the parent wholesale provider or in its absence, applies a surrogate customers per MW ratio to estimate the number of customers served by a wholesale power provider's delivery point. This customer count is used to calculate the individual metrics above.

AEP's standard approach is to annually review the historical performance of its assets based on a rolling three-year average, but in some cases AEP may extend the review period beyond three years. AEP classifies all transmission asset outage causes into the following five categories to conduct this review: Transmission Line Component Failure, Substation Component Failure, Vegetation (AEP), Vegetation (Non-AEP), and External Factors. Each transmission asset and its associated performance is quantified and compared against corresponding system totals to determine its percentage contribution to aggregated system performance. An evaluation of outage rates is also performed for Transmission line assets. The observed performance of the assets in any of these categories can point to a need that may need to be addressed.

3.4 Future Risk (Factor 3)

AEP reviews the associated risk exposure (future risk) inherent with each identified asset to determine an asset's level of risk. This risk exposure is quantified assuming the probability of an outage scenario and is based on the reported condition of the asset and the severity of that condition and what the impact could be to customers or to the operation of AEP's Transmission system. Some of the key items to assess these impacts included in the risk criteria are:

- A. Number of Customers Served
- B. Load Served
- C. Operational Risks
 - a. Post Contingency Load Loss Relief Warnings (PCLLRW's)
 - b. History of Load Shed Events
 - c. Stations in Black Start Paths

In addition to the future risk calculation performed through this process, AEP is systematically reviewing its system to identify and remediate equipment and practices that have resulted in operational, restoration, environmental, or safety issues in the past that cannot be directly quantified, but that remain as acknowledged risks in the AEP Transmission system. These include:

- A. Wood pole construction
- B. Pilot wire protection schemes
- C. Oil circuit breakers
- D. Air Blast circuit breakers
- E. Pipe type oil filled cables
- F. Electromechanical relays
- G. Legacy system configurations
 - a. Missing or inadequate line switches (e.g., hard-taps)
 - b. Missing or inadequate transformer/bus protection
 - c. Three-terminal lines
 - d. Overlapping zones of protection
- H. Non-Standard Voltage Classes
- I. Poor Lightning & Grounding Performance
- J. Radial Facilities
- K. Public vulnerability

These items as described above are reviewed on a case by case basis and considered when holistic system solutions are being developed.

4.0 Step 2: Solution Development

The development of solutions for the identified needs considers a holistic view of all of the needs in which several solution options are developed and scoped. AEP applies the appropriate industry standards, engineering judgment, and Good Utility Practices to develop these solution options. AEP solicits customer and external stakeholder input on potential solutions through the Annual Stakeholder Summits hosted by AEP and also through the PJM Project Submission process. This ensures that input from external stakeholders on identified needs can be received and considered as part of the solution development process.

Solution options consider many factors including, but not limited to, environmental conditions, community impacts, land availability, permitting requirements, customer needs, system needs, and asset conditions in ultimately identifying the best solution to address the identified need. Once the selected solution for a need or group of needs is defined, it is reviewed using the current RTO provided power-flow, short circuit, and stability system models (as needed) to ensure that the proposed solution does not adversely impact or create baseline planning criteria violations on the transmission grid. Finally, AEP reviews its existing portfolio of baseline planning criteria driven reliability projects and evaluates opportunities to combine or complement existing baseline planning criteria driven reliability projects with the transmission owner needs driven solutions developed through this process. This step ultimately results in the implementation of the more efficient, cost-effective, and holistic long-term solutions. Stand-alone projects are created to implement the proposed solution where transmission owner needs driven solutions cannot be integrated into existing projects.

5.0 Step 3: Solution Scheduling

Once solutions are developed to address the identified needs, the scheduling of the solutions will take place. As mentioned in the previous section, if opportunities exist to combine or complement existing baseline planning criteria driven reliability projects with the needs driven solutions developed through this process, the scheduling will be aligned to the extent possible. In all other situations, AEP will schedule the implementation of the identified solutions in consideration of various factors including severity of the asset condition, overall system impacts, outage availability, siting requirements, availability of labor and material, constructability, and available capital funding. AEP uses its discretion and engineering judgment to determine suitable timelines for project execution.

6.0 Conclusion

This document outlines AEP's criteria and guidelines for transmission owner identified needs that address equipment material conditions, performance, and risk. It outlines the sources and methods considered by AEP to identify assets with needs on a continuous basis and it outlines how solutions are developed and scheduled. AEP will review and modify these criteria and guidelines as appropriate based upon our continuing experience with the methodology, acquisition of data sources, deployment of improved performance statistics and the receipt of stakeholder input in order to provide a safe, adequate, reliable, flexible, efficient, cost-effective and resilient transmission system that meets the evolving needs of all of the customers it serves.

7.0 References

- FERC Pro Forma Open Access Transmission Tariff, Section 1.14, Definition of "Good Utility Practice".
 Link: https://www.ferc.gov/legal/maj-ord-reg/land-docs/rm95-8-0aa.txt
- [2] AEP Transmission Planning Documents and Transmission Guidelines. Link: http://www.aep.com/about/codeofconduct/OASIS/TransmissionStudies/

Case No. 2022-00118 Exhibit 20 PJM Local Plan Page 1 of 3



Need Number: AEP-2020-AP026

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 04/08/2021

Previously Presented:

Need Meeting 03/19/2020

Solutions Meeting 11/20/2020

Project Driver:

Equipment Condition/Performance/Risk

Specific Assumption Reference:

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 8)

Problem Statement:

Line Name: Wooton – Pineville 161kV Line Section: Leslie – Pineville 161kV Original Install Date (Age): 1942 Length of Line: ~34.24 mi Total structure count: 189 Original Line Construction Type: Wood Conductor Type: 500 KCM COPPER Momentary/Permanent Outages and Duration: 12 Momentary and 5 permanent Outage CMI (last 5 years only): 26,096 minutes Line conditions:

Leslie - Pineville line section:

- 130 structures with at least one open condition, 69% of the structures on this circuit.
- 221 structure related open conditions : affecting the crossarm, knee/ vee brace, or pole including rot, split, woodpecker, damaged, loose, and bowed conditions
- · 2 open conditions related to the shielding wire, including broken strands
- 3 hardware related open conditions related to insulator, conductor hardware, or shield wire hardware, including broken, missing bolt, and worn

AEP Transmission Zone M-3 Process Wooton – Pineville 161kV Rebuild





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Need Continued:

Line Section: Wooton - Leslie 161kV

Original Install Date (Age): 1942

Length of Line: ~4.68 mi

Total structure count: 23

Original Line Construction Type: Wood

Conductor Type: 500 KCM COPPER

Momentary/Permanent Outages and Duration: none in last five years

CMI (last 5 years only): none in last five years

Line conditions:

Leslie - Wooton line section:

- 17 structures with at least one open condition, 74% of the structures on this section.
- 32 structure related open conditions including: crossarm or pole including rot, insect damage and woodpecker damage

AEP Transmission Zone M-3 Process Wooton – Pineville 161kV Rebuild



Case No. 2022-00118 Exhibit 20 PJM Local Plan Page 3 of 3



Need Number: AEP-2020-AP026

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 04/08/2021

Selected Solution:

- At Wooton station, upgrade relaying to accommodate new OPGW fiber protection. Estimated Cost: \$1.1 M (s2428.1)
- At Leslie station, reconductor the 161kV Bus, Relaying upgrades towards Wooton and Pineville, Replace 161kV MOAB W, Replace 161kV XF#1 high side switch. Install DICM. Estimated Cost: \$1.2 M (s2428.2)
- Remote end work at Hazard substation Estimated Cost: \$0.03 M (s2428.3)
- Rebuild approximately ~40 miles of Wooton Pineville 161kV line to address the identified asset condition needs. This work also includes line removal work as well as access road construction. Majority of proposed line rebuild is to be constructed on existing center line. Estimated Cost: \$115.0M (s2428.4)
- Expand existing ROW for the Wooton Pineville 161kV line. Estimated Cost: \$8.5 M (s2428.5)
- Relocate ~0.32 mi 69kV Leslie Clover Fork which includes of one structure and reconfiguration of the existing line to cross underneath the proposed Wooton-Stinnett 161kV Line. Estimated Cost: \$0.7 M (s2428.6)
- At Stinnett station, upgrade relaying to accommodate new OPGW fiber protection. Provide transition, entry and termination for OPGW connectivity to the Hazard-Pineville fiber route. Estimated Cost: \$0.7M (s2428.7)
- Provide transition, entry and termination for OPGW connectivity at Leslie substation. Estimated Cost: \$0.1 M (s2428.8)

Estimated Cost: \$127.33 M

Projected In-Service: 11/31/2027

Supplemental Project ID: s2428.1-.8

Project Status: Scoping

Model: N/A

AEP Transmission Zone M-3 Process Wooton – Pineville 161kV Rebuild





Case No. 2022-00118 Exhibit 21 PJM Solution Page 1 of 4

AEP Transmission Zone M-3 Process Leslie County, Kentucky



Process Stage: Solutions Meeting 11/20/2020

Previously Presented: Need Meeting 03/19/2020

Supplemental Project Driver: Equipment Condition/Performance/Risk

Specific Assumption Reference:

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 8)

Problem Statement:

Line Name: Wooton – Pineville 161kV Line Section: Leslie – Pineville 161kV Original Install Date (Age): 1942 Length of Line: ~34.24 mi Total structure count: 189 Original Line Construction Type: Wood Conductor Type: 500 KCM COPPER Momentary/Permanent Outages and Duration: 12 Momentary and 5 permanent Outage CMI (last 5 years only): 26,096 minutes

Line conditions:

Leslie – Pineville line section:

- 130 structures with at least one open condition, 69% of the structures on this circuit.
- 221 structure related open conditions : affecting the crossarm, knee/ vee brace, or pole including rot, split, woodpecker, damaged, loose, and bowed conditions
- 2 open conditions related to the shielding wire, including broken strands
- 3 hardware related open conditions related to insulator, conductor hardware, or shield wire hardware, including broken, missing bolt, and worn

SRRTEP-Western – AEP Supplemental 11/20/2020





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Case No. 2022-00118 Exhibit 21 PJM Solution Page 2 of 4

AEP Transmission Zone M-3 Process Leslie County, Kentucky



John - Dil



Line Section: Wooton - Leslie 161kV

Original Install Date (Age): 1942

Length of Line: ~4.68 mi

Total structure count: 23

Original Line Construction Type: Wood

Conductor Type: 500 KCM COPPER

Momentary/Permanent Outages and Duration: none in last five years

CMI (last 5 years only): none in last five years

Line conditions:

Leslie-Wooton line section:

- 17 structures with at least one open condition, 74% of the structures on this section.
- 32 structure related open conditions including: crossarm or pole including rot, insect damage and wood pecker damage

SRRTEP-Western – AEP Supplemental 11/20/2020

Case No. 2022-00118 Exhibit 21 PJM Solution Page 3 of 4

Need Number(s): AEP-2020-AP026 Process Stage: Solutions Meeting 11/20/2020 Proposed Solution:

At Wooton station, upgrade relaying to accommodate new OPGW fiber protection. Estimated Cost: \$1.1 M

At Leslie station, reconductor the 161kV Bus, Relaying upgrades towards Wooton and Pineville, Replace 161kV MOAB W, Replace 161kV XF#1 high side switch. Install DICM. Estimated Cost: \$1.2 M

Remote end work at Hazard substation Estimated Cost: \$0.03 M

Rebuild approximately ~40 miles of Wooton – Pineville 161kV line to address the identified asset condition needs. This work also includes line removal work as well as access road construction. Majority of proposed line rebuild is to be constructed on existing center line. EstImated Cost: \$115.0M

Expand existing ROW for the Wooton – Pineville 161kV line. Estimated Cost: \$8.5 M

Relocate ~0.32 mi 69kV Leslie – Clover Fork which includes of one structure and reconfiguration of the existing line to cross underneath the proposed Wooton-Stinnett 161kV Line. Estimated Cost: \$0.7 M

AEP Transmission Zone M-3 Process Leslie, Clay, Bell and Knox Counties, Kentucky





Case No. 2022-00118 Exhibit 21 PJM Solution Page 4 of 4

Proposed Solution (Cont.):

At Stinnett station, upgrade relaying to accommodate new OPGW fiber protection. Provide transition, entry and termination for OPGW connectivity to the Hazard-Pineville fiber route. **Estimated Cost: \$0.7M**

Provide transition, entry and termination for OPGW connectivity at Leslie substation. Estimated Cost: \$0.1 M

Total Estimated Transmission Cost: \$127.33 M

Alternative considered:

Given the remote nature of the line and the customers served from the line, no cost effective alternative exists. This line also serves as a tie into TVA.

Projected In-Service: 11/31/2027

Project Status: Scoping

AEP Transmission Zone M-3 Process Leslie, Clay, Bell and Knox Counties, Kentucky



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