

FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

FLORENCE-IRON CITY 161-KV TRANSMISSION LINE FINAL ENVIRONMENTAL ASSESSMENT

**LAUDERDALE COUNTY, ALABAMA AND WAYNE AND LAWRENCE COUNTIES, TENNESSEE
EAXX-455-00-000-1730390329**

The Tennessee Valley Authority (TVA) proposes to improve reliability of its existing transmission system in the Florence area in Lauderdale County, Alabama by constructing and operating a new 161-kilovolt (kV) transmission line and switching station. The proposed 13.3-mile-long Florence-Iron City 161-kV Transmission Line would connect Florence Utilities' existing Florence 161-kV Substation in Lauderdale County to TVA's proposed Iron City 161-kV Switching Station in Lawrence County, Tennessee. In addition, TVA proposes to install three short loop lines in TVA's existing Colbert Fossil Plant (FP)-Lawrenceburg 161-kV Transmission Line which serves the Waynesboro, Loretto, and Crockett 161-kV substations located in Wayne and Lawrence counties, Tennessee. The new switching station would connect all four 161-kV substations improving the reliability in the service area. These power system improvements would also provide backup capability to the City of Florence. The proposed transmission line would utilize about 161 acres of existing right-of-way (ROW) where TVA has custody and control of the easements. TVA would re-acquire 2.5 miles of Florence Utilities transmission line ROW easement and would co-locate the proposed transmission line for 1.1 miles within this section on the Florence Utilities' structures. TVA would purchase a 45.6-acre site, of which, about 8.7 acres would be used for the switching station.

The proposed action is the subject of an environmental assessment (EA) prepared by TVA. The EA is incorporated by reference. The EA addresses the construction, operation, and maintenance of the proposed transmission line and switching station and the acquisition of 2.5 miles of transmission line ROW easement from Florence Utilities.

Alternatives

Two alternatives (the No Action Alternative and the Action Alternative) were addressed in the EA. TVA also considered other alternatives in identifying its preferred Action Alternative.

Under the No Action Alternative, TVA would not construct the proposed transmission line and switching station to improve power reliability. As a result, the TVA power system in the City of Florence and Lauderdale County service area would continue to operate under current conditions including voltage instability, limited operational flexibility, increased risk for substation and transmission line overloading, loss of service, and occurrence of violations of NERC reliability criteria. Additionally, the Colbert FP-Lawrenceburg 161-kV Transmission Line and the long transmission lines supplying the Waynesboro, Loretto, and Crockett substations would continue to have limitations on generation due to having no backup power supply (i.e., line exposure). TVA's ability to provide a strong, reliable source of power for continued economic health and future residential and commercial growth in the area would be jeopardized.

Considering TVA's obligation to provide reliable electric service, the No Action Alternative is not a reasonable alternative. However, the potential environmental effects of adopting the No Action Alternative were considered in the EA to provide a baseline for comparison with respect to the potential effects of implementing the proposed action.

Under the Action Alternative, TVA proposes to improve reliability of its existing transmission system in the Florence area by constructing the Iron City 161-kV Switching Station and the Florence-Iron City 161-kV Transmission Line which would be approximately 13.3 miles long, on existing ROW. The transmission line would consist primarily of steel, single-pole and H-frame structures. The proposed project would utilize about 161 acres for the new line and about 8.7 acres of a 45.6-acre site for the switching station.

Impacts Assessment

The EA documents potential effects to the following resources: water quality (groundwater and surface water); aquatic ecology; vegetation; wildlife; endangered and threatened species (aquatic animals, terrestrial animals, and plants) and their critical habitats; floodplains; wetlands; visual resources and noise; archaeological and historic resources; recreation, parks, and managed areas; and socioeconomics.

Potential effects related to prime farmland, transportation, air quality, global climate change, solid waste, hazardous and nonhazardous wastes, and health and safety were considered. Potential effects on these resources were found to be minimal or absent because of the nature of the action.

The proposed construction activities would involve ground disturbance resulting in the potential for increased erosion and sediment release, which may temporarily affect local surface water and aquatic ecology via stormwater runoff. Aquatic ecology could also be affected by alteration of stream habitat conditions. Because standard best management practices (BMPs) and streamside management zones (SMZs) would be implemented during construction, operation, and maintenance of the proposed project, potential effects to surface water, groundwater and aquatic ecology would be minor and insignificant.

Clearing and converting of approximately 47.27 acres of mostly deciduous forested land for the proposed transmission line, switching station, and access roads would be long-term in duration, but insignificant. Virtually all forest in the proposed project area has been previously cleared and the plant communities found there are common and well represented throughout the region. Cumulatively, project-related effects to forest resources would be negligible when compared to the total amount of forested land found in the region. Also, project-related work would temporarily affect herbaceous plant communities, but these areas would likely recover to their pre-project condition in less than one year. Nearly the entire proposed project area currently has a substantial component of invasive terrestrial plants. Adoption of the Action Alternative would not significantly affect the extent or abundance of these species at the county, regional, or state level. The use of TVA standard operating procedures for revegetating with noninvasive species (TVA 2022) would serve to minimize the potential introduction and spread of invasive species in the proposed project area.

Construction-associated disturbances and habitat removal would disperse mobile wildlife currently using the project area into surrounding areas to find new food and shelter sources and to reestablish territories. Less mobile individuals may be directly impacted by construction, particularly if clearing activities take place during breeding/nesting seasons. However, the actions are not likely to affect populations of species common to the area, as similarly forested and herbaceous habitat exists in areas immediately adjacent to the project area. Some migratory birds of conservation concern could be impacted by the proposed actions. Foraging habitat for nine species exists in the project area. If clearing occurs in the fall and winter (October to February), most migratory birds are unlikely to be present and breeding in the

project area. Individuals that could be present on the landscape would be expected to flush if disturbed. If clearing occurs in the summer and spring season, most of the species would be expected to be present. Direct impacts are anticipated for individual nests, eggs, and juveniles in trees removed as a part of project actions; however, due to the abundance of suitable habitat near the project area, project actions are not anticipated to significantly impact populations of migratory birds.

No federally listed plant species occur in the project area and no populations of state-listed species were observed during field surveys of the project area. Therefore, no impacts on endangered and threatened plant species and their critical habitats are anticipated under the Action Alternative.

No federally designated critical habitat is known from the potentially affected 10-digit HUC watersheds of the proposed project area. Boulder darter, spotfin chub, Tennessee logperch, and bottlebrush crayfish are the only species of concern present near the proposed project area. Populations of these species are most abundant in Shoal Creek, which is outside the potential areas of impact. It is possible small populations may colonize tributaries to Shoal Creek; however, these tributaries would not be directly impacted by the construction of or ongoing maintenance of the proposed transmission line. Additionally, these tributaries would be protected by enhanced SMZ buffers during construction, operation and maintenance activities to prevent any indirect effects. All watercourses documented within the proposed project area would be protected by standard BMPs and additional SMZ protection measures. Therefore, no impacts to federally or state-listed aquatic species are anticipated to occur as a result of the Action Alternative.

Of the 47.27 forested acres to be cleared in the project area, approximately 30 acres are suitable for roosting by tricolored bats. Within those 30 acres of habitat, approximately 15 acres are suitable summer roosting habitat for northern long-eared bat and Indiana bat. There are similar forested areas present within the county and adjacent to the project area. As part of TVA's programmatic consultation with the U.S. Fish and Wildlife Service (USFWS) on routine actions and federally listed bats in accordance with Endangered Species Act Section 7(a)(2), TVA determined that the proposed actions under the Action Alternative would have potential effects on federally listed bats. For those activities with potential to affect bats, TVA committed to implement conservation measures as part of the project. Therefore, direct and indirect impacts to federally listed bat species are expected to be minor. With appropriate implementation of BMPs and procedures that are designed to avoid and minimize impacts to federally or state-listed species during site preparation, construction, and on-going maintenance activities, and adherence to relevant conservation measures described in the EA, the Action Alternative is expected to have only minor effects on federally or state-listed terrestrial animal species.

While the proposed transmission line ROW crosses floodplains, none of the proposed structures would be located within 100-year floodplains. The proposed support structures would not be expected to result in any increase in flood hazard, either as a result of increased flood elevations or changes in flow-carrying capacity of the streams being crossed. Cumulative impacts of the proposed project include TVA's construction of the planned Iron City 161-kV Switching Station; however, it would be located well outside of 100-year floodplains and tens of feet above the nearest perennial stream – an unnamed tributary of Shoal Creek. By implementing the mitigation measures described below and with the use of standard BMPs, the proposed project would have no significant impact on floodplains and their natural and beneficial values and would be consistent with Executive Order (EO) 11988.

All of the 0.89 acre of forested wetland within the proposed project area would be cleared and permanently converted to emergent, meadow like wetland habitat for the perpetuity of the transmission line's existence. With wetland avoidance and wetland minimization techniques in place, TVA would comply with all Clean Water Act, U.S. Army Corps of Engineers, Alabama Department of Environmental Management, and Tennessee Department of Conservation mandates to ensure wetland impacts do not result in cumulative loss. In this context, the proposed wetland impacts would be kept to a minimum on a cumulative scale due to the avoidance, minimization, and compliance measures in place. Therefore, the Action Alternative's impacts to wetlands would be insignificant.

Potential effects associated with the proposed project consist of temporary disturbances during construction (i.e., noise, traffic, and fugitive dust) as well as long-term visual impacts, all of which would be limited to communities in the immediate vicinity of the project footprint. Although much of the proposed transmission line would not be visible to the public due to the distance from developed areas and presence of forested buffers, they would be visible in the foreground to motorists on nearby roadways, a number of residences, and recreationists on trails within the Shoal Creek Preserve. While the Action Alternative would contribute to a minor decrease in visual integrity of the landscape, the existing scenic class would not be reduced by two or more levels, which is the threshold of significance of impact to the visual environment. Therefore, visual impacts resulting from the implementation of the Action Alternative would be minor. During construction, operation, and maintenance of the proposed transmission line and switching station, equipment could generate noise above ambient levels. As all construction noise would be temporary in nature and limited to daytime hours, noise impacts from construction of the proposed project would be minor. For similar reasons, noise related to periodic line maintenance is also expected to be insignificant.

Under the Action Alternative, the Florence-Iron City Transmission Line would be built, utilizing a portion of existing ROW easement through the Shoal Creek Preserve, Blackberry Trail Golf Course, and Powell Cemetery. Minor noise, transportation, and visual impacts could occur during construction. TVA would coordinate with the Blackberry Trail Golf Course to ensure the safety of their golf cart/walking trail. The old de-energized TEPCO transmission line runs directly over this trail. Signage would be placed by TVA to warn pedestrians of the construction. The trail may need to be temporarily closed depending on the potential hazards presented during the project. The proposed project could cause minor disruption to any dispersed outdoor recreation use patterns in the immediate vicinity of the ROW corridor. However, the extent of any such impacts should be minor and insignificant. In addition, BMPs would be implemented to minimize or avoid any impacts resulting from construction and operation. The Shoal Creek Preserve, a Forever Wild parcel managed by the State Lands Division of the Alabama Department of Conservation and Natural Resources (ADCNR), is the only natural area that overlaps the project area. Impacts to this area could include clearing of trees and disturbance of the scenic and wild value of this area. TVA would coordinate with ADCNR to minimize impacts wherever possible. As this section of the proposed work would be on an existing transmission line ROW, any impacts to this area should be temporary and limited to the construction phase of this project. Overall, impacts to managed and natural areas would be temporary and minor.

TVA, in consultation with the Alabama and Tennessee State Historic Preservation Officers (SHPO) and federally recognized Indian tribes, found that the project would not negatively impact any listed or eligible National Register of Historic Places archaeological or architectural sites. The SHPOs concurred with TVA's findings in letters dated July 30, 2024 (Tennessee) and August 22, 2024 (Alabama) (for the transmission line ROWs), November 15, 2024

(Tennessee) and December 11, 2024 (Alabama) (for the access routes), and December 11, 2024 (for the results of the Phase II testing and architectural survey). TVA received comments from four federally recognized Indian tribes. TVA received concurrence for no adverse effect for the transmission line ROWs from the Eastern Shawnee Tribe of Oklahoma on September 9, 2024, and from the Chickasaw Nation on September 6, 2024. TVA received concurrence on the findings of the Phase II testing and access roads from the Chickasaw Nation on December 5, 2024, and from the Muscogee (Creek) Nation on December 11, 2024. Lastly, TVA received notice that the project lay outside the Choctaw Nation's area of interest on December 16, 2024.

Impacts associated with the proposed project on demographics and local employment would be minor. There is the potential for a decrease in property value for those parcels in the vicinity of the proposed transmission line or switching station. However, most of the new construction would take place along existing ROWs and/or in undeveloped areas; residential properties have been avoided to the greatest extent possible. As most homes in the area already have views of existing transmission structures or are separated from these structures by a vegetated buffer, any effects to local property values would be minor.

Implementation of the Action Alternative would ensure that the project area has a continuous, reliable source of electric power for its future load growth. The proposed transmission improvements would reduce overall line exposure by providing backup power supply and thus would increase power reliability of the existing Waynesboro, Loretto, and Crockett substations. The proposed project would also provide backup capability to the City of Florence and create additional transmission capacity which supports load growth and economic development in the Florence area. There would be no direct impacts to community facilities or services under the Action Alternative. Implementation of the Action Alternative would not have a notable impact on the demand for emergency services in the area.

The construction and operation of the proposed transmission line and switching station could result in minor temporary impacts such as increased traffic, noise, fugitive dust, and air emissions during the construction period. However, these impacts would be minor due to the considerable distance between the majority of residences and would not result in any substantial long-term impacts that would have a direct impact on human health or welfare.

Potential effects from electromagnetic fields would be minor. The proposed transmission line would not pose an increased hazard for electric shock or from lightning.

The proposed line would traverse mostly rural areas except for a concentration of residential and commercial development along the southern portion of the proposed ROW beginning at the existing Florence 46/161-kV Substation in the City of Florence. On the approximately 4.2-mile section of the transmission line where the proposed structures would replace the de-energized line on the existing Colbert FP-Lawrenceburg 161-kV ROW, the transmission line would not be especially prominent in the local landscape due to the presence of the existing structures. Likewise, the remaining nine miles of the transmission line would consist of new structures and would pose a long-term encumbrance on the affected properties, but the proposed route would utilize an existing TVA ROW easement that is currently unoccupied. Various agricultural land uses could be practiced within the ROW, but any timber production within the ROW would be foregone for the life of the transmission line.

Public Review

TVA developed a public communication plan that included a website with information about the project, a map of the alternative routes, and numerous feedback mechanisms. TVA held a

virtual Information Session from February 11 to March 15, 2021. Property owners near and along the transmission line route were mailed a letter explaining the project and invited to the virtual Information Session— including about 187 property owners representing about 225 parcels. TVA used local news outlets and notices placed in local newspapers to notify other interested members of the public. For those that were not able to access TVA's website, a toll-free number, email address, and mailing address were provided as additional points of contact for questions about the project. The project was delayed until 2023 following the 2021 information session. In November 2023, each property owner affected by the transmission line route or new switching station was mailed an additional explanation letter on the project.

The preferred location for the new transmission line would utilize existing TVA ROW easement. Any fine adjustments made to the proposed route were based on working with impacted property owners and information obtained from environmental field surveys.

TVA also held a two-week public review and comment period of the draft EA from February 3rd to February 14th, 2025. TVA received no comments on the proposed project.

Mitigation

TVA will implement the routine environmental protection measures listed in the EA. In addition, the following non-routine measures will be implemented to reduce potential adverse environmental effects:

- Construction would adhere to the TVA subclass review criteria for transmission line location in floodplains.
- Any road improvements or construction in 100-year floodplains would be done in such a manner that upstream flood elevations would not be increased by more than 1.0 foot.
- Excess material would be spoiled outside of published floodways.
- TVA would coordinate with the Blackberry Trail Golf Course to ensure the safety of their golf cart/walking trail. The old de-energized TEPCO transmission line runs directly over this trail. Signage would be placed by TVA to warn pedestrians of the construction. The trail may need to be temporarily closed depending on the potential hazards presented during the project.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, TVA concludes that the proposed actions included in improving power reliability in Lauderdale County, Alabama and Lawrence and Wayne counties, Tennessee would not be a major federal action significantly affecting the environment. This finding of no significant impacts is contingent upon adherence to the mitigation measures described above. Accordingly, an Environmental Impact Statement is not required.



S. Dawn Booker
Senior Manager, NEPA Compliance
Major Projects

March 11, 2025

Date Signed

Reference

Tennessee Valley Authority (TVA). 2022. A Guide for Environmental Protection and Best Management Practices for Tennessee Valley Authority Construction and Maintenance Activities, Revision 4. Edited by S. Benefield, R. Brannon, Z. Buecker, C. Buttram, B. Dalton, G. Dalton, C. Henley, W. Martin, A. Masters, C. Phillips, C. Suttles, and R. Wilson. Chattanooga, TN. Retrieved from https://tva-azr-eastus-cdn-ep-tvawcm-prd.azureedge.net/cdn-tvawcma/docs/default-source/energy/transmission/a-guide-for-environmental-protection-and-best-management-practices-for-tva-construction-and-maintenance-activities-august-2022ea9924e6-329f-4d3a-a0ac-d66bb9aa0894.pdf?sfvrsn=b9e08843_3 (n.d.).