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FINDING OF NO SIGNIFICANT IMPACT

TENNESSEE VALLEY AUTHORITY

ARTESIA-WEST COLUMBUS POWER SYSTEM IMPROVEMENTS
CLAY, LOWNDES, AND OKTIBBEHA COUNTIES, MISSISSIPPI

The Tennessee Valley Authority (TVA) proposes to improve the existing power supply in Clay, Lowndes, and Oktibbeha Counties, Mississippi (MS). TVA's proposal would construct, operate and maintain the proposed 12-mile 161-kV Transmission Line (TL) from TVA's existing West Columbus Switching Station, in central Lowndes County, to the Artesia Switching Station in western Lowndes County. Related project actions include conductor replacement on two existing TVA lines, the CMF–Carbonic 161-kV TL, also in Lowndes County, and the Starkville – West Point 161-kV TL in adjacent Clay and Oktibbeha counties.

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 right-of-way (ROW) maintenance of the proposed TL.

Alternatives

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

Under the No Action Alternative, TVA would not improve the existing power supply in Clay, Lowndes, and Oktibbeha Counties, Mississippi (MS) by constructing and operating or maintaining the proposed 12 mile 161-kV from TVA's existing West Columbus Switching Station, in central Lowndes County, to the Artesia Switching Station in western Lowndes County. Related upgrade replacement projects would not be completed. As a result, the TVA power system within the Clay, Lowndes, and Oktibbeha Counties, Mississippi areas would continue to operate under current conditions, increasing the risk of voltage and thermal loading problems, loss of service, and occurrences of violations to North American Electric Reliability Corporation (NERC) reliability criteria. TVA's ability to provide reliable service and add electrical capacity to support economic development within the area, including the Infinity Mega site, would be jeopardized, which would not support TVA's overall mission.

Considering TVA's statutory obligation to provide reliable electric service and support economic development within the Valley, 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 the existing power supply in Clay, Lowndes, and Oktibbeha Counties, Mississippi (MS). TVA's proposal would construct and operate and maintain the proposed approximately 12 miles 161-kV from TVA's existing West Columbus Switching Station, in central Lowndes County, to the Artesia Switching Station in western Lowndes County. Related project actions include conductor replacement on two existing TVA lines, the CMF–Carbonic 161-kV TL, also in Lowndes County, and the Starkville – West Point 161-kV TL in adjacent Clay and Oktibbeha counties.

To ensure that the areas within Clay, Lowndes, and Oktibbeha Counties, MS have a continuous reliable source of power, and that the Infinity Mega site (herein referred to as Mega site) has additional electrical capacity for future load growth, TVA would provide new electric service to the area. The Mega site near Artesia, Mississippi, has been the subject of multiple inquiries within the past few years and has been deemed a growth area. A new 161-kV transmission line is needed to support economic development at the Mega site. Serving the average load inquiry without upgrading the TVA transmission system would result in low voltage and thermal violations during the summer peak and spring maintenance seasons. The construction of these power system improvements would meet these needs. Additionally, the proposed project would further enhance TVA's Bulk Transmission System by improving operational and maintenance flexibility, and finally would support economic development in the Infinity Mega site.

Impacts Assessment

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

If the No Action Alternative were adopted, a decline in the reliability of electric service for some customers would be likely in the future. Service problems and interruptions likely would gradually become more frequent and more severe. These outages would have negative impacts on the ability of businesses in the area to operate. Residents of the area would also incur negative impacts from outages, such as more frequent loss of power. These conditions would diminish the quality of life for residents in the area and would likely have negative impacts on property values in the area. Potential socioeconomic effects under the No Action Alternative would likely affect all populations in the region negatively.

Based on the analysis of the proposed Action Alternative, there would be no effects to geological characteristics. Potential effects from electromagnetic fields would be minor, and the proposed TL would not pose an increased hazard for electric shock or from lightning. Because construction of the proposed line would be short-term, potential effects to local air quality would be minor, and the amount of solid waste produced would be minor. Potential effects from noise would be temporary and minor. Potential effects on traffic would likely be minor and short-term in nature. Potential effects to local visual quality would be temporary and minor. Construction, operation, and maintenance of the proposed TL could cause shifts in local informal recreation, but these would be minor.

Overall, the Action Alternative would have no disproportionate impacts to disadvantaged populations. Providing an additional source of power would help maintain reliable service in the area, thereby avoiding the potential increase in negative impacts from lack of reliability. No noticeable adverse social or economic effects, including changes in local property values, are likely.

Because appropriate best management practices (BMPs) will be implemented during construction, operation, and maintenance of the proposed TL, potential effects to groundwater would be minor and insignificant. For similar reasons, any effects to surface water quality and aquatic life are expected to be temporary and minor.

The proposed TL would cross floodplain areas of several streams. Efforts were made during the siting process to avoid or minimize impacts to floodplains. However, because of other social,

environmental, and engineering factors considered in the siting process, there was no practicable alternative that would allow for complete avoidance of floodplains. Consistent with Executive Order (EO) 11988, overhead TLs and related support structures are considered to be repetitive actions in the 100-year floodplain (46 FR 22845). The conducting wires of the TL would be located well above the 100-year flood elevation. Portions of access roads could be located within the 100-year floodplain, however any road improvements would be done in such a manner that upstream flood elevations would not be increased by more than 1.0 foot. The laydown yards would be located outside of the 100-year floodplain, which would be consistent with EO 11988.

To minimize adverse impacts, any road construction or improvements will be done in such a manner that upstream flood elevations will not be increased. To minimize adverse impacts on natural and beneficial floodplain values, TVA will implement standard BMPs during construction and adhere to the TVA subclass review criteria for TL location in floodplains. As such, construction, operation, and maintenance of the proposed TL would have no significant impact on floodplains.

Construction of the proposed TL would result in the clearing of approximately 54 acres of forest. At the local level, this would constitute a minor loss of forest resources. Almost all of the forests within the footprint of the proposed ROW area have been previously cleared. Areas of native vegetation within the proposed ROW and substation construction sites would be adversely affected by clearing, but most sites would likely recover to pre-project conditions within a few years. ROW clearing and maintenance would displace various wildlife species, but would not adversely affect local populations and it is expected that they would return to the project area upon completion of actions.

No federal and two state-listed terrestrial animal species were documented within three miles of the project footprint. However, four federally listed terrestrial animal species were assessed based on county occurrence records or the potential for species to occur in the project area. The proposed project may clear potential roosting habitat and increase foraging habitat. Similar habitat is abundant in the project area. With BMPs in place, water quality and hydrology would not be affected. Species are not likely to be impacted by the proposed actions.

Approximately 3.47 acres of suitable summer roosting habitat for the federally listed northern long-eared bat (NLEB) occurs in the proposed ROW corridor. As part of TVA's Endangered Species Act (ESA) Programmatic Agreement (PA) biological assessment for bats, TVA programmatically quantified and minimized removal of potentially suitable summer roosting habitat during the time of potential occupancy by NLEB. During field surveys TVA documented 36 suitable roost trees along the proposed ROW and within the switching station sites. A number of activities associated with the proposed action, including tree clearing, were addressed in TVA's PA biological assessment for evaluating impacts of routine actions on federally listed bats in accordance with ESA Section 7(a)(2). For those activities with the potential to affect federally listed bats, TVA committed to implementing specific conservation measures. Therefore, direct and indirect impacts to federally listed bat species are expected to be minor.

The proposed project would span 114.15 acres of wetland, requiring the conversion of about 10.25 acres of forested and scrub-shrub wetlands to emergent wetlands. The forested wetlands would be cleared during construction. Similarly, all wetland areas located within the proposed TL ROW would be subject to periodic vegetation management, and maintained as herbaceous or scrub-shrub wetland vegetation or open water. Efforts were made during the TL siting

process to avoid or minimize wetlands. However, because of project and topographic constraints, and because of the goal of minimizing impacts to other environmental and social resources, no practicable alternative was available that would allow complete avoidance of wetlands. Potential wetland impacts would be reduced during the TL construction and ROW maintenance activities through implementation of appropriate BMPs and compliance with all federal and state wetland regulations. Due to the minimal wetland conversion proposed relative to forested wetland present at a watershed scale, no significant wetland impacts are anticipated to result from this project. The proposed action is consistent with the Protection of Wetlands EO 11990.

TVA conducted a cultural resource survey to identify historic properties in the undertaking's area of potential effect (APE). The survey resulted in the identification of 36 newly recorded architectural resources in MS. For the 36 newly recorded resources, TVA determined, in consultation with the appropriate parties, that none of the individual houses/buildings are eligible for National Register of Historic Places (NRHP) listing due to lack of architectural distinction and inability to associate these resources to historic person(s) or event(s). The site recorded as 22LO1066, represents the occupations of a tenant house associated with the Billups Gate plantation complex between the late nineteenth and early twentieth century and the early to mid-twentieth century, respectively. TVA is considering 22LO1066 eligible for the NRHP and finds that the proposed undertaking would result in an adverse effect on archaeological site 22LO1066. TVA completed consultation with the Mississippi State Historic Preservation Officer (SHPO) and federally recognized Indian tribes regarding TVA's eligibility determinations and findings of effect, and the MS State Historic Preservation Office concurred. TVA entered into a Memorandum of Agreement with the MS SHPO to mitigate the adverse effects to 20LO1066. TVA received one response from the Choctaw Nation with concerns about the proximity of a proposed access road to Robinson Road. This road will not be utilized as part of the project. During consultation of the proposed access routes, the Muscogee (Creek) Nation requested that TVA not utilize Access Road (AR) 7 within the site boundaries of 22CL506, TVA agreed with this request and AR 7 will not be used as part of the project. The Choctaw Nation Historic Preservation Department stated that they could not concur with the undertaking due to partial site recommendations.

Public Review

TVA developed a public communication plan that included a website with information about the project, a map of the alternative routes, and feedback mechanisms. Public officials and property owners who could potentially be affected by, or lived near, any of the route alternatives were invited to a project open house. TVA used local news outlets and notices placed in the local newspapers to notify other interested members of the public of the open houses. The open house was held in Columbus, Mississippi on January 18, 2018. At the open house, TVA presented a network of alternative TL routes, comprised of 19 different line segments. A 30-day public review and comment period was held following the open house, and TVA accepted public comments on the alternative TL routes and other issues.

Mitigation

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

- To compensate for the impacted 10.25 acres of forested and scrub-shrub wetlands to emergent wetlands, TVA would mitigate the loss of trees by purchasing wetland mitigation credits prior to construction of the proposed TL.

- As part of TVA's PA biological assessment for bats, TVA would track and document the removal of potentially suitable summer roost trees and include this information in annual reporting in accordance with ESA Section 7(a)(2) consultation. Additionally, if removal of suitable bat roost tree habitat needs to occur when bats may be present on the landscape, TVA would conduct mist net surveys and/or set aside funding to be applied towards future bat-specific conservation projects in accordance with the PA biological assessment.

- If the one structure in the ROW near Airport Rd must be removed, removal should take place between October 1st and April 14th to prevent impacts to roosting northern long-eared bats. Outside of these dates, a presence absence survey by a TVA biologist is required less than 24 hours prior to disturbance.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, we conclude that the proposed actions included in improving power supply to Clay, Lowndes, and Oktibbeha Counties MS 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.

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Date Signed