

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
BURLISON 161-KILOVOLT TRANSMISSION LINE
TIPTON COUNTY, TENNESSEE

Southwest Tennessee Electric Membership Corporation (STEMC), a distributor of Tennessee Valley Authority (TVA) power, provides electrical service to the Burlison area of Tipton County over a series of long 13-kilovolt (kV) distribution lines from the Covington 161-kV Substation, which is owned jointly by TVA, STEMC, and the Covington Electric System. Projections indicate that the two transformers at the Covington Substation could be loaded above capacity by summer 2012. Additional load growth and existing power demand from industries in the Burlison area have caused system overloading at peak demand times. Loss of a transformer at the Covington Substation would likely result in an overload situation and a possible power outage, as the remaining transformer lacks adequate capacity to meet the entire power demand.

To provide an adequate and reliable power supply to the Burlison and Covington areas, TVA proposes to supply power to a new distributor substation. This substation, known as the Burlison Substation, would be constructed and operated by STEMC. TVA's proposed 161-kV transmission line (or "tap line") would connect STEMC's Burlison Substation to TVA's existing Shelby-Covington #1 161-kV Transmission Line. Construction of the new tap line to power the STEMC Burlison Substation would remedy the capacity problems at the Covington Substation and provide a power supply closer to the demand, thereby allowing TVA to meet industrywide standards established by the North American Electric Reliability Corporation.

The potential environmental effects of this proposed action are described in an environmental assessment (EA), which is incorporated by reference.

Alternatives

The subject EA evaluates two alternatives, i.e., the No Action Alternative and the Action Alternative (Construct and Operate a New 161-kV Transmission Line).

Under the No Action Alternative, TVA would not construct the proposed transmission line to serve STEMC's planned Burlison Substation. However, STEMC could decide to build a new transmission line to provide power to the new substation. The distributor could use the route identified by TVA, or it could select another route. Alternatively, STEMC could decide not to build the Burlison Substation. In this event, current power reliability problems and the possibility of power outages would persist.

Under the Action Alternative, TVA would serve STEMC's planned Burlison 161-kV Substation by building a 7.2-mile-long 161-kV transmission line connecting the planned Burlison Substation to TVA's existing Shelby-Covington #1 161-kV Transmission Line. TVA would install two switch structures near the Shelby-Covington #1 161-kV Transmission Line tap point within the right-of-way (ROW). The new transmission line would be located on new ROW 100 feet in width. Several access roads would be required for construction and maintenance of the proposed transmission line.

Additionally, TVA would provide metering equipment to the distributor for installation at the new Burlison Substation. The TVA system mapboard display at TVA's System Operations Center and Regional Operations Center in Chattanooga would be modified to include indicators of the operational status of the new facilities.

Impacts Assessment

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

If the No Action Alternative were adopted, TVA would not construct or operate a new 161-kV tap line to serve the STEMC Burlison Substation. Thus, environmental conditions along the proposed ROW would remain unchanged. However, if STEMC were to independently provide transmission service by constructing a new transmission line, the potential environmental effects of implementing the No Action Alternative would be comparable to those resulting from the adoption of the Action Alternative, depending on factors such as the route chosen for the transmission line and the construction methods. In the event that STEMC chose not to construct the Burlison Substation, the reliability of the local power supply would continue to degrade, and the area could lose residential, commercial, and industrial development opportunities. Potential socioeconomic effects under the No Action Alternative would likely affect minority and low-income residents disproportionately because of their limited options to relocate.

Approximately half of the land within the proposed ROW and access road routes is used for agriculture, while another 15 percent is in early successional vegetation. About 35 percent is forestland. Because the construction of the proposed tap line would not require extensive changes in land use, potential effects to vegetation, local wildlife populations or habitat, or aquatic life would be minor and insignificant.

No endangered or threatened species or their suitable habitats occur in the project area, and there would be no effects to these species. With the use of appropriate best management practices, potential effects to surface water, groundwater, and wetlands would be minor and insignificant. Although the proposed tap line would cross floodplain areas, placement of support structures for the power line within the 100-year floodplain is considered a repetitive action and is not expected to cause any increase in flood hazard due to changes in flood elevations or in the flow-carrying capacity of the streams being crossed. Two access roads would cross 100-year floodplain areas. These roads would be constructed in a manner that would avoid increases in upstream flood elevations (see Mitigation section below).

No historic resources that are eligible for inclusion in the National Register of Historic Places would be affected by implementing the Action Alternative. The Tennessee State Historic Preservation Officer concurred with this determination on December 6, 2010.

Most changes in local visual character would occur during transmission line construction. The visual presence of the new transmission line would not contrast significantly with the established landscape character. Construction and operation of the proposed tap line could cause minor shifts in local informal recreation. No natural areas, streams listed on the Nationwide Rivers Inventory or designated Wild and Scenic Rivers occur within 3 miles of the proposed action, and no effects to these resources are expected.

The socioeconomic effects caused by inadequate power supplies would be prevented under the Action Alternative. Minor temporary effects could be experienced during transmission line construction; however, no noticeable adverse social or economic effects, including changes in local property values, are likely.

Public and Intergovernmental Review

TVA posted information about the project, including a map of alternative routes and feedback mechanisms, on its Web site. Public officials were briefed on the project. Potentially affected property owners, along with seven public officials, were invited to a project open house, which was held on January 21, 2010, in Covington. TVA placed notices in the local newspapers to notify the public of the meeting, which was attended by 80 people.

At the open house, TVA presented a network of seven alternative transmission line routes comprised of eight different line segments and four tap points. A 30-day public review and comment period was held following the open house, and TVA accepted public comments on the proposed action.

TVA consulted with the Tennessee Department of Archives and History, the Tennessee Natural Heritage Program, and 14 federally recognized Native American tribes concerning the proposed project.

Mitigation

TVA will implement the standard procedures listed in Appendices B through E in the EA for reducing adverse environmental effects from the construction, operation, and maintenance of the proposed transmission line and switch structures. TVA has not identified the need for any nonroutine mitigation.

Conclusion and Findings

Based on the findings in the EA, TVA concludes that the construction of the proposed 161-kV transmission line and switch structures as described under the Action Alternative will not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Date Signed