

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
EAST FRANKLIN-TRIUNE 161-KV TRANSMISSION LINE TAP TO CLOVERCROFT 161-KV
SUBSTATION WILLIAMSON COUNTY, TENNESSEE

The Proposed Action

Tennessee Valley Authority (TVA) proposes to construct a 161-kilovolt (kV) transmission line tap from the East Franklin-Triune 161-kV Transmission Line to Middle Tennessee Electric Membership Corporation's (MTEMC) planned Clovercroft 161-kV Substation near Nolensville, Tennessee, by November 2007. The transmission line, 5.3 miles in length, would be built using single-pole steel structures on new right-of-way 100 feet in width and occupy about 64 acres.

TVA would also add switches on each side of the tap point (connection point) in the East Franklin-Triune 161-kV Transmission Line and in the transmission line to be built to the planned substation. TVA would provide equipment to MTEMC that would be installed in the new substation to allow metering and system protection. An Environmental Assessment (EA) was prepared for this proposed action and is incorporated by reference.

Background

The purpose of the proposed action is to serve the planned Clovercroft 161-kV Substation and help provide a stable and reliable supply of electricity to the MTEMC service territory in the Nolensville area of Williamson County. The rapid growth in the Nolensville area is resulting in the loading and voltage problems on MTEMC's distribution system that is at capacity limits. Planned developments are expected to increase the area power demands further stressing the reliability and adequacy of the area power supply. The proposed action of providing a 161-kV connection from the planned substation to the TVA transmission system would address the need for a more reliable power supply and additional electric load capacity by providing another source of power in the area for MTEMC.

Alternatives

In the past, TVA has explored whether additional conservation efforts could be developed and implemented in a timely manner to reduce load sufficiently to offset anticipated growth. A 2002 study of demand-side management options for the Tennessee Valley determined that conservation efforts only provided a limited potential for reducing load and offsetting the growth in demand, especially in the near-term. Moreover, the proposed action is to connect MTEMC's planned substation to the TVA system and conservation is not to be an alternative to this.

Under the No Action Alternative, TVA would not build the line connecting MTEMC's planned substation to the TVA system. In response, MTEMC could decide to build the line itself with similar or greater impacts or it could try to improve reliability and meet growing demand some other way. The latter would not be consistent with MTEMC's determination that building its planned substation is the best way of meeting these needs.

During the development of the proposed action, TVA considered nine alternative routes for the proposed transmission line. These alternative routes run roughly south to north from the existing East Franklin-Triune 161-kV Transmission Line to the site of the planned Clovercroft 161-kV Substation. The preferred transmission line route was selected based on a number of factors including public input, reduction of potential environmental impacts, avoidance or lessening severance of property, and avoidance of cemeteries, schools, and other cultural features. This preferred route is analyzed in detail in the EA.

Impacts Assessment

The EA concludes that the impacts to terrestrial plant and animal communities would be minor and insignificant. A small area (0.13 acre) of an uncommon plant community would be impacted by the transmission line right-of-way. Because this community is locally common, no significant impacts are anticipated. No uncommon animal communities occur in the project area. Approximately 31 acres of forested land along the 5.3-mile transmission line would be converted to nonforested habitats.

No federally or state-listed terrestrial animal or plant species would be affected. One federally and one state-listed aquatic animal species could be affected. TVA concluded that, with the implementation of routine streamside protection measures such as Best Management Practices (BMPs) and mitigation measures listed below, the proposed action would not adversely affect these species. The U.S. Fish and Wildlife Service, in a letter dated August 8, 2006, agreed with this determination.

No jurisdictional wetlands occur in the project area. Potential impacts to streams, associated non-jurisdictional riparian wetlands, aquatic life, and water quality are expected to be insignificant with implementation of the BMPs and other streamside protection measures. No adverse impacts to the downstream segment of the Harpeth River designated as a State Scenic River are anticipated. Although portions of the transmission line would cross several floodplains, there would be no increase in flood hazard and the action is consistent with the Executive Order on Floodplains. The project is compatible with current land uses, and the proposed action would not negatively affect prime farmland. Impacts to recreation activities, transportation, and visual aesthetics would be insignificant. No parks, managed areas, or ecologically significant sites would be affected.

Five previously recorded National Register of Historic Places (NRHP)-listed historic/architectural properties were identified in the project area. Additionally, two historic/architectural properties and four archaeological sites, all previously unrecorded, were identified in the project area. None of these historic/architectural properties within line-of-sight of the proposed transmission line or the archaeological sites were determined eligible for listing on the NRHP. TVA has therefore concluded that the proposed action does not have the potential to affect any historic properties that are eligible for listing or are currently listed on the NRHP. The Tennessee State Historic Preservation Office has concurred with this determination.

Mitigation

The siting process TVA used for the transmission line sought to avoid or limit potential environmental impacts where feasible. In addition to this effort, other mitigation measures have been identified during the review of the project. Many of these are standard measures that TVA routinely implements with all of its transmission line projects, such as the use of BMPs and other practices listed in the appendices of the EA. These include the establishment of

streamside management zones to protect against adverse impacts to water quality and aquatic resources. The following mitigation measures will be implemented to reduce the environmental impacts that could result from the proposed action:

Protection of Aquatic Resources

- All intermittent and perennial watercourse crossings within the Arrington Creek drainage will be designated as Category A, Standard Stream Protection, as outlined in Muncy (1999). Category A will also apply in the Mill Creek drainage to the four intermittent/wet-weather conveyances that drain to the unnamed perennial Mill Creek tributary stream. A 50-foot streamside management zone (SMZ) will be implemented at these crossings (EA Appendix VII).
- Category B protections will apply in the Mill Creek drainage to the unnamed perennial stream (SMZ – 005) and one intermittent tributary (SMZ – A001) crossed by the proposed transmission line. As defined in Muncy (1999), a 100-foot SMZ will be established at SMZ – 005 and a 50-foot SMZ at crossing SMZ – A001 (EA Appendix VII). As soon as is practicable after clearing, these SMZs will be replanted with low-growing woody vegetation.
- No equipment will be allowed to enter the unnamed perennial stream (SMZ – 005), and no temporary or permanent vehicle crossings will be constructed in the stream channel at the site of the transmission line crossing. If a stream crossing is needed, a temporary bridge will be employed. No instream disturbance will be allowed, and stream bank disturbance will be limited to that needed to accomplish the crossing. All standard BMPs to prevent runoff into the stream will be employed if a vehicle crossing is needed.
- Watercourses that convey only surface water during storm events (i.e., wet-weather conveyances or ephemeral streams) and that could be affected by the proposed transmission line construction and operation (EA Appendix VII) will be protected by standard BMPs as identified in Muncy (1999). These BMPs are designed in part to minimize erosion and subsequent sedimentation in streams.

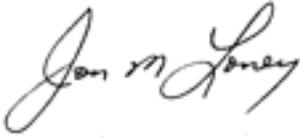
Pole Management Practices

- The retired three-pole structure at the Triune 161-kV Substation will be reused by TVA.
- The wooden three-pole structure currently located at the East Franklin-Triune 161-kV Transmission Line tap point will be given to local property owners for restrictive reuse or disposed of according to TVA procedures. Some epoxy arms may contain a lead pin, so the epoxy arms will be checked for lead. Any lead present will be removed and placed in a separate bin for recycle; the epoxy arms will be sent to a disposal facility. The insulators will be sent to a disposal facility, and the retired conductor will be recycled.

Conclusion and Findings

The EA for this proposal concludes that construction and operation of the transmission line will not result in significant adverse impact upon the environment. This conclusion takes into account the implementation of the standard commitments such as the use of BMPs. It is also

based on the implementation of the mitigation and avoidance measures mentioned above. Environmental Stewardship and Policy has determined that the preparation of an Environmental Impact Statement is not required.



November 14, 2006

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Date Signed