

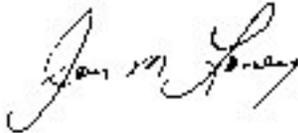
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W. Terry Boston, MR 3H-C

ENVIRONMENTAL ASSESSMENT (EA) AND FINDING OF NO SIGNIFICANT IMPACT (FONSI)—ETOWAH, TENNESSEE, AREA POWER SUPPLY IMPROVEMENT PROJECT

In accordance with the National Environmental Policy Act (NEPA) and TVA's implementing procedures, Environmental Policy and Planning is issuing the attached EA and FONSI as documentation of TVA's NEPA review of the proposed Etowah, Tennessee, Area Power Supply Improvement Project. As stated in the FONSI, we conclude that the proposed action with implementation of the standard commitments, as well as mitigation measures related to historic properties, will not have a significant impact on the quality of the environment.



Jon M. Loney, Manager
NEPA Administration
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Attachments: EA and FONSI

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FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
ETOWAH, TENNESSEE, AREA POWER SUPPLY IMPROVEMENT PROJECT

The Proposed Action

Tennessee Valley Authority (TVA) proposes to rebuild a 9-mile section of the existing Ocoee #1-Etowah Switching Station 69-kilovolt (kV) Transmission Line and construct the Northeast Benton 161-69-kV Substation in McMinn and Polk Counties, Tennessee. The rebuilt transmission line would be constructed with single-pole steel structures on right-of-way 75 feet in width and occupying about 82.5 acres. Approximately 1.7 acres of this would be on new 100-foot right-of-way adjacent to the Northeast Benton 161-69-kV Substation with the remainder built on existing right-of-way. The substation site would occupy approximately 8 acres.

Background

The purpose of the proposed action is to provide an adequate and reliable supply of electricity to the Etowah area of McMinn County and nearby Polk County. The major power supply to this area is from the Athens Primary Substation via a 161-kV transmission line to TVA's Etowah Switching Station. Electric power is then transferred over the existing Ocoee #1-Etowah Switching Station 69-kV Transmission Line to other electrical loads at the J. M. Huber and Etowah District Substations. This power is delivered in part over an older section of transmission line constructed in 1917 by the Tennessee Electric Power Company (TEPCO). This 69-kV transmission line runs to the Ocoee #1 Hydro Plant, which provides a weak secondary electric supply for the project area. The TEPCO section is degraded and is considered inadequate for reliable service into the future. Should a power outage occur along the long transmission line from Athens during heavy use periods, the TEPCO section of the Ocoee #1-Etowah Switching Station 69-kV Transmission Line could not provide the project area with an adequate backup power supply. As a result, some of the electric load would need to be dropped on this transmission line in order to maintain adequate voltage, and outages would occur to residential and industrial customers in the proposed project area. The proposed action would address this need by providing a new 161-kV supply connection to the TVA transmission system.

Alternatives

While planning this project, TVA considered various means of providing an adequate and reliable supply of electricity to the Etowah area of McMinn and Polk Counties. In addition to the proposed action (the Preferred Alternative) and the No Action Alternative, TVA considered one additional Action Alternative. Under this additional alternative, TVA would build the Northeast Benton 161-69-kV Substation and renovate 12.4 miles of the Ocoee #1-Etowah Switching Station 69-kV Transmission Line to the present 69-kV standards from the new substation to the Etowah Switching Station.

This alternative is not TVA's Preferred Alternative. Although the cost of this alternative was comparable, it has potentially greater impacts compared to TVA's Preferred Alternative due to the additional length of new transmission line. It also would not accommodate as well as TVA's Preferred Alternative any future upgrade of the project area's electric load supply to 161-kV. The No Action Alternative also is not preferred because it would not meet the existing and projected power demands of the project area.

The proposed transmission line route was identified as preferred based on a number of factors including public input, reduction of potential environmental impacts, less property-ownership impacts, and avoidance of cemeteries, schools, and other cultural features. This preferred route is analyzed in detail in the Environmental Assessment (EA).

Impacts Assessment

The EA concludes that the impacts to terrestrial plant and animal communities would be minor and insignificant. No uncommon plant or animal communities occur in the project area, and with the use of the existing right-of-way, impacts to vegetation and wildlife would be minor and insignificant. Although federally listed endangered and threatened species are known from McMinn and Polk Counties, none would be affected by the proposed action. Several state-listed species have been reported from the project area, and potential habitat along the proposed transmission line was identified for some of these species. Because of the small area and marginal quality of this habitat, no adverse impacts to state-listed species are anticipated.

The proposed transmission line would cross ten separate wetland areas with a total area of about 6.5 acres. Forested wetlands comprise approximately 0.45 acre of this, and the remainder is emergent or scrub-shrub wetland. The forested wetland impacts were determined to be insignificant because of the small size of the area of impact (less than 0.5 acre). This determination was also due in part to the diminished functional quality and the absence of any sensitive wetland factors in the affected wetlands. The remaining, nonforested wetlands are located in the existing Ocoee #1-Etowah Switching Station 69-kV Transmission Line easement and are already periodically cleared by mowing or other methods during routine right-of-way maintenance. Impacts to all of the wetlands in the project area would be minimized through use of Best Management Practices (BMPs), and overall wetland impacts would be insignificant.

The proposed transmission line is in the watershed of the Hiwassee River in the Tennessee River basin, and no unusual aquatic communities are known from the affected watercourses. The Hiwassee River upstream of the Ocoee River is designated a State Scenic River and is highly utilized for rafting and canoeing. The river is also listed on the Nationwide Rivers Inventory. The Hiwassee River in McMinn County is on the state 303 (d) list as partially supporting its designated uses due to pathogens from agriculture. BMPs and other streamside protection measures would be used to help ensure that the impacts of substation and transmission line construction and operation on area streams are minimized. With the implementation of these measures, impacts to streams, aquatic life, and water quality are expected to be insignificant.

Construction of the proposed Northeast Benton 161-69-kV Substation and laydown area would not involve work within the 100-year floodplain. The existing transmission line rebuild would cross several floodplain areas. Rebuilding the transmission line could involve the replacement of existing structures or construction of new structures in the 100-year floodplain. Construction of the support structures would not result in any increase in flood hazard, and the proposed 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. The proposed substation and associated Ocoee #1-Etowah Switching Station 69-kV Transmission Line and laydown area would cross two managed areas and within 3 miles of two additional managed areas. At the state-designated Scenic Hiwassee River crossing, the design of the transmission line structures would minimize the impacts to the scenic qualities. Because the proposed project would be a rebuild of an existing transmission line, with an existing easement and access roads, impacts to these areas are anticipated to be minimal and temporary.

Four historic archaeological sites were identified during a survey of the project area. Two of these were previously identified sites. Of these four sites, two are prehistoric lithic scatters that contain no intact buried deposits and are recommended ineligible for listing in the National Register of Historic Places (NRHP). The remaining two sites are recommended potentially eligible for listing in the NRHP. Measures would be put into place to avoid adversely affecting these sites during the construction of the transmission line. Three NRHP-listed properties, three previously recorded historic properties, and 37 previously unrecorded historic resources were identified during a survey of the project area. Additionally, the Etowah Commercial District and the TEPCO transmission line towers were evaluated for NRHP eligibility. Most of the unlisted properties were determined not eligible for listing in the NRHP. Of the three NRHP-listed properties, one, the Etowah Carnegie Library, would not be affected, and two, the Etowah Depot and Etowah Historic District, would not be adversely affected. The historic existing TEPCO transmission line structures would be adversely impacted since the proposed project would demolish 9 miles of these transmission line structures. Pursuant to Section 106 of the NHPA and its implementing regulations, at 30 CFR Part 800, TVA has coordinated with the Tennessee State Historic Preservation Officer (SHPO) to minimize these adverse effects to the Ocoee #1-Etowah Switching Station 69-kV Transmission Line corridor.

Mitigation

The proposed action contains standard measures including the use of BMPs, the establishment of streamside management zones, and other practices listed in the appendices of the EA to minimize environmental impacts. In addition, to minimize and mitigate adverse effects to historic properties, the following commitments would be followed:

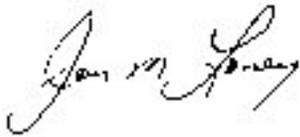
- TVA, in consultation with the SHPO and other concurring parties, shall ensure that adverse effects to historic properties determined eligible for listing in the NRHP shall be avoided whenever prudent and feasible. The following measures shall be taken to avoid adverse effects to historic properties:

1. TVA will avoid locating any transmission line structure, substation, or infrastructure within the identified boundaries of NRHP-eligible archaeological sites.
 2. Sensitive archaeological areas within the transmission line's right-of-way will be noted on the transmission line's Plan and Profile sheets that are used in construction and maintenance operations. Any special conditions placed on that area for construction and maintenance of the transmission line will be detailed on these sheets.
 3. To the extent practicable, TVA will avoid locating any transmission line structure, substation, or infrastructure within the viewshed of identified NRHP-eligible or NRHP-listed historic structures. Such measures will include: No transmission line structures will be placed within the sites boundaries; only equipment with low-pressure tires will be used when traversing the sites; and all work will be conducted when the ground conditions are dry and firm.
- TVA will ensure that the silhouette of the transmission line will be minimized as much as practicable to ensure the undertaking does not further compromise the visual setting of the Etowah Depot and the Etowah Historic District, as in the use of single-pole steel structures within the boundaries of the Etowah Depot and the Etowah Historic District and within the viewsheds of historic structures.
 - The following measures shall be taken to mitigate adverse effects (i.e., demolition) to the 9 miles of the TEPCO 69-kV transmission line from the Northeast Benton 161-69-kV Substation to the Etowah District Substation:
 1. Photographs of two views of an A-frame tower, including both overall views and details, will be taken.
 2. Archival negatives and archival, 4x5, black-and-white prints will be provided to the Tennessee SHPO.
 3. An Index to Photographs of the views taken will be provided to the Tennessee SHPO.
 4. Background research will be conducted to document the history of the towers.
 5. A copy of an original schematic drawing of the A-frame towers indicating design measurements will be provided to the Tennessee SHPO.
 - Should there be changes in the project design that could adversely affect NRHP-eligible or listed properties, TVA, in consultation with the SHPO and other concurring parties, shall develop and implement an archaeological data recovery plan for eligible archaeological sites that cannot be feasibly avoided by the transmission line, substation, or infrastructure construction.

Conclusion and Findings

The Final EA for this proposal concludes that construction and operation of the transmission line, substation and laydown area would 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 and mitigation measures to historic properties.

Environmental Policy and Planning's National Environmental Policy Act (NEPA) Administration staff reviewed the Final EA, agreed with this conclusion, and determined that the preparation of an Environmental Impact Statement is not required.



March 11, 2005

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NEPA Administration
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Tennessee Valley Authority

Date Signed

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