

Billing Code 8120-08-U

TENNESSEE VALLEY AUTHORITY

Environmental Impact Statement for Rutherford-Williamson-Davidson Power Supply Improvement Project

AGENCY: Tennessee Valley Authority

ACTION: Notice of Intent

SUMMARY: The Tennessee Valley Authority (TVA) will prepare an environmental impact statement (EIS) addressing the proposed construction and operation of a new or expanded 500-kilovolt (kV) substation and associated transmission line upgrades in middle Tennessee. The substation would be located in Rutherford, Williamson, or Davidson County. Other project components would be located in these counties and in other counties in middle Tennessee. In the EIS, TVA will evaluate the potential environmental impacts of the construction, operation, and maintenance of the new and upgraded facilities. TVA will use the EIS process to obtain public involvement on this proposal. Public comment is invited concerning both the scope of the EIS and environmental issues that should be addressed as a part of this EIS.

DATES: Comments on the scope and environmental issues for the EIS must be postmarked or e-mailed no later than August 8, 2005, to ensure consideration.

ADDRESSES: Written comments should be sent to Charles P. Nicholson, Environmental Policy and Planning, Tennessee Valley Authority, Mail Stop WT 9B, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1401. Comments may be e-mailed to cpnicholson@tva.gov.

FOR FURTHER INFORMATION CONTACT: Hugh S. Barger, Environmental Engineer, Transmission/Power Supply, Tennessee Valley Authority, Mail Stop MR 4G-C, 1101 Market Street, Chattanooga, Tennessee 37402-2801. Telephone (423) 751-3131. E-mail may be sent to hsbarger@tva.gov.

SUPPLEMENTARY INFORMATION:

Background

The population in Murfreesboro, Franklin, and surrounding areas of Middle Tennessee has grown at a rate of 4.3 percent per year since 1990. TVA supplies bulk electricity to this area through its Davidson, Pinhook, and Wilson 500-kV Substations. As a result of the rapid population growth, the electrical load for this area has also grown rapidly and is expected to exceed the capacity of the 500-kV substations serving the area by 2010. Several 161-kV transmission lines serving the area from these substations are also expected to become overloaded by 2010.

TVA has studied these problems and tentatively concluded that the best method of remedying them is to either construct a new 500-kV substation or expand an existing 500-kV substation. The solution would also require the construction and operation of new 500-kV and 161-kV transmission lines and/or upgrades to existing transmission lines.

Project Description

TVA has three potential alternative solutions. The first would involve the construction of a new 500-kV substation in southwest Rutherford County near Eagleville. The substation

would require an area of 50 to 75 acres. Major substation components would include four 500/161-kV transformers, two 500-kV breakers, and nine 161-kV breakers. TVA would also add four 500-kV breakers to its Maury 500-kV substation in north-central Maury County.

As part of this solution, TVA would also construct and operate a new 500-kV transmission line from its Maury 500-kV Substation to the new 500-kV substation. This line would likely be 25 to 30 miles long and would be built on right-of-way purchased by TVA in the 1970s for construction of the Hartsville-Maury 500-kV transmission line. This line was never completed and the portion of the right-of-way proposed for the new 500-kV line has remained in TVA ownership and was never cleared. Three 161-kV transmission lines are also proposed. One of these, from the new 500-kV substation to the Almatville Substation, would be about 7 miles long and built on vacant right-of-way owned by TVA. A double-circuit line about 12 miles long would be built on new right-of-way between the new substation and the Christiana substation. Another line about 2.5 miles long would connect the Murfreesboro-Triune-E. Franklin 161-kV transmission line to the new substation. The proposed transmission lines are located in Rutherford, Maury, and Williamson Counties.

The second potential solution involves the construction and operation of a new 500-kV substation in northeast Williamson County near Brentwood. The substation would be similar to that described for the first solution. As part of the second solution, TVA would also upgrade about 75 miles of existing 161-kV transmission lines. These transmission lines are located in Davidson, Rutherford, Williamson, Sumner, Wilson, Coffee, Franklin, and Bedford Counties. The upgrade work could range from replacing the conductors to completely rebuilding the lines.

The third potential solution involves the expansion of TVA's existing Pinhook 500-kV Substation in southwest Davidson County. The substation would be expanded by adding a second bank of 500/161-kV transformers. This solution would also require the upgrading of about 115 miles of existing 161-kV transmission lines. These transmission lines are located in Davidson, Rutherford, Maury, Williamson, Coffee, Franklin, and Bedford Counties.

The new 500-kV transmission line would likely be built using self-supporting, laced steel towers on right-of-way 175 feet in width. The new 161-kV lines would likely be built using self-supporting single-pole or H-frame steel towers on right-of-way 100 feet wide. The structure types, right-of-way characteristics, and line lengths remain to be determined and could change when additional information is gathered.

Line construction would require removal of trees within the line right-of-way as well as any other nearby tall trees which would endanger the safe operation of the line.

Construction of the 500-kV support structures would require the excavation of foundations for each of the tower legs. Support structures for the 161-kV lines would normally not require separate foundations and the poles would be embedded in drilled holes. Cranes and other heavy equipment would be needed to construct the towers and pull the electrical conductor into place. After construction, the disturbed areas would be restored, and the right-of-way would be maintained periodically to control the growth of tall vegetation that could endanger the line. A detailed description these activities, as well as applicable and appropriate environmental protection measures, will be provided in the EIS.

After the completion of scoping, TVA will begin detailed studies for siting the substation and routing the transmission lines using maps, aerial photography and other relevant data. When the studies have progressed sufficiently, potentially affected landowners will be contacted directly, and additional field surveys will be conducted.

Proposed Issues To Be Addressed

The EIS will contain descriptions of the existing environmental and socioeconomic resources within the area that would be affected by construction and operation of the proposed transmission line and upgrades. TVA's evaluation of potential environmental impacts to these resources will include, but not necessarily be limited to, the potential impacts on water quality, aquatic and terrestrial ecology, endangered and threatened species, wetlands, aesthetics and visual resources, land use, historic and archaeological resources, and socioeconomic resources. The need and purpose of the project will be discussed.

Alternatives

The results of evaluating the potential environmental impacts and other important issues identified in the scoping process, as well as engineering and economic considerations, will be used by TVA in identifying a preferred alternative. At this time, the range of alternatives TVA has identified for detailed evaluation includes no action and the three alternative solutions described above. The ability of energy conservation to meet projected demands will be addressed. As analyses proceed, one or more alternatives may be eliminated due to technical infeasibility, unacceptable environmental impacts, or

unreasonably high economic costs. TVA also expects to evaluate multiple sites for the new substation.

Scoping Process

Scoping, which is integral to the process for implementing the National Environmental Policy Act (NEPA), is a procedure that solicits public input to the EIS process to ensure that: (1) issues are identified early and properly studied; (2) issues of little significance do not consume substantial time and effort; (3) the draft EIS is thorough and balanced; and (4) delays caused by an inadequate EIS are avoided. TVA's NEPA procedures require that the scoping process commence soon after a decision has been reached to prepare an EIS in order to provide an early and open process for determining the scope and for identifying the significant issues related to a proposed action. The range of alternatives and the issues to be addressed in the draft EIS will be determined, in part, from written comments submitted by mail or e-mail, and comments presented orally or in writing at any public meetings. The preliminary identification of reasonable alternatives and environmental issues in this notice is not meant to be exhaustive or final.

The scoping process will include both interagency and public scoping. The public is invited to submit written comments or e-mail comments on the scope of this EIS no later than the date given under the DATES section of this notice.

TVA will conduct a public scoping meeting on July 11, 2005. This informal meeting will begin at 4:00 p.m. and end at 8:00 p.m. (CST). The meeting will be held at the Eagleville High School, 500 Highway 99, Eagleville, Tennessee.

At the meeting, TVA management and project staff will present overviews of the proposed transmission line project and the EIS process, answer questions, and solicit comments on the issues that the public would like addressed in the EIS. These meetings will be publicized through notices in local newspapers, by TVA press releases, on the TVA web site at <http://www.tva.gov/environment/calendar.htm> and in letters to local elected officials preceding the public meetings.

The agencies to be included in the interagency scoping are U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Tennessee Department of Environment and Conservation, the Tennessee State Historic Preservation Officer, and other federal, state, and local agencies, as appropriate. After consideration of the scoping comments, TVA will further identify alternatives and environmental issues to be addressed in the EIS. Following analysis of the environmental consequences of each alternative, TVA will prepare a draft EIS for public review and comment. Notice of availability of the draft EIS will be published by the Environmental Protection Agency in the Federal Register. TVA will solicit written comments on the draft EIS, and information about possible public meetings to comment on the draft EIS will be announced. TVA expects to release a draft EIS in the fall of 2006 and a final EIS in early 2007.

Kathryn J. Jackson
Executive Vice President
River System Operations & Environment

June 27, 2005
Date