

TENNESSEE VALLEY AUTHORITY

Putnam-Cumberland, Tennessee - Improve Power Supply

AGENCY: Tennessee Valley Authority.

ACTION: Notice of intent.

SUMMARY: This notice is provided in accordance with the Council on Environmental Quality's regulations (40 CFR Parts 1500-1508) and the Tennessee Valley Authority's (TVA) procedures for implementing the National Environmental Policy Act (NEPA). TVA will prepare an environmental assessment (EA) or an environmental impact statement (EIS) to address the potential environmental effects of proposed electrical power supply improvements in the Putnam and Cumberland region of east-central Tennessee. The purpose of the proposed project is to ensure the reliable transmission of electric power to meet increasing power demands in the project area.

In its environmental review, TVA will evaluate the potential environmental impacts of the construction, operation, and maintenance of proposed new and upgraded power transmission facilities. TVA will develop and evaluate various alternatives, including the No Action Alternative, in the environmental review. Public comments are invited concerning both the scope of the review and environmental issues that should be addressed.

DATES: To ensure consideration, comments on the scope and environmental issues must be postmarked or e-mailed no later than February 22, 2011. If TVA decides to

prepare an EIS, a notice of availability of the draft document will be published in the Federal Register, and announcements will be placed in local news media.

ADDRESSES: Written comments should be sent to Anita Masters, NEPA Compliance Manager, Tennessee Valley Authority, 1101 Market Street (LP 5U), Chattanooga, Tennessee 37402-2801. Comments may be e-mailed to newtransline@tva.gov or entered online at <http://www.tva.gov/environment/reports/putnam/index.htm>.

FOR FURTHER INFORMATION, CONTACT: Christopher A. Austin, Civil Engineer, Tennessee Valley Authority, 1101 Market Street (MR 4G), Chattanooga, Tennessee 37402-2801; telephone: 800-362-4355; e-mail: newtransline@tva.gov. Project information is available online at http://www.tva.gov/power/projects/putnam_cumb/index.htm.

SUPPLEMENTARY INFORMATION:

Background

TVA is an agency and instrumentality of the United States, established by an act of Congress in 1933, to foster the social and economic welfare of the people of the Tennessee Valley region and to promote the proper use and conservation of the region's natural resources. One component of this mission is the generation, transmission, and sale of reliable and affordable electric energy. TVA provides electric power to most of Tennessee and to parts of Virginia, North Carolina, Georgia, Alabama, Mississippi, and Kentucky. TVA transmits this power over approximately 16,000 miles of transmission lines.

TVA supplies bulk electric power to Cumberland and Putnam counties and the immediately surrounding areas in east-central Tennessee through an existing network of 26 161-kilovolt (kV) substations and 28 161-kV transmission lines. Population in this area has grown at a rate of almost 1.8 percent per year since 2000. TVA studies indicate that 19 of these substations will not meet acceptable voltage criteria by 2016, and the remaining seven substations will be unable to meet criteria by 2019. Five of the 161-kV transmission lines are expected to become overloaded by summer 2016, and 11 more lines are likely to be overloaded by summer 2019. Long-range studies indicate that either the provision of a 500-kV source or extensive upgrades to existing 161-kV facilities will be required in the Putnam County and Cumberland County area by 2016 to meet anticipated power loads.

Proposed Alternatives

TVA has identified three potential alternatives to meet the identified power supply needs. The first involves upgrading existing transmission lines in the area. This would require replacing conductors (i.e., "wires") on approximately 54 miles of transmission lines and performing other upgrades (e.g., resagging and retensioning conductors and increasing structure heights) on about 115 miles of transmission lines. Extensive equipment upgrades would be required at 11 161-kV substations.

The second potential alternative involves the construction and operation of a new 500-kV substation in western Cumberland County near the existing Campbell Junction 161-kV Substation. The new substation would require an area of 60 to 80 acres. Under this option, TVA would acquire a 300-foot-wide right-of-way, then construct, operate, and maintain two new parallel 500-kV transmission line connections from the new substation

to the TVA Roane-Wilson 500-kV Transmission Line. The length of the new lines would likely be less than 2 miles. In addition, following acquisition of a 100-foot-wide right-of-way, TVA would construct, operate, and maintain two new 161-kV transmission line connections on a double-circuit line (i.e., a line consisting of two sets of conductors located on common structures) from the new 500-kV substation to the existing TVA Monterey-Peavine 161-kV Transmission Line. The new connections would likely be less than a mile long. New substation equipment would be installed in the Jamestown, Tennessee, area under this option.

The third alternative involves construction of a new 500-kV substation in Putnam County southwest of Cookeville on a 60- to 80-acre site. As part of this alternative, TVA would acquire a 300-foot-wide right-of-way and construct, operate, and maintain two new parallel 500-kV transmission lines from the proposed substation to the TVA Roane-Wilson 500-kV Transmission Line. These new lines are expected to be less than 2 miles in length. TVA would also acquire right-of-way in order to construct, operate, and maintain four new 161-kV transmission line connections. Two of these would be a double-circuit line located on a 100-foot-wide right-of-way from the new 500-kV substation to the existing TVA Cordell Hull-West Cookeville 161-kV Transmission Line. The other two connections would also be a double-circuit line located on a 100-foot-wide right-of-way from the new 500-kV substation to the Gallatin-West Cookeville 161-kV Transmission Line. About 7 to 10 miles of new right-of-way would be needed for these connections. Additionally, the West Cookeville-South Cookeville 161-kV Transmission Line would be upgraded. New equipment would be installed at the Jamestown 161-kV Substation in Fentress County, Tennessee, and at the Monterey 161-kV Substation in Putnam County under this alternative.

New 500-kV transmission lines would likely utilize self-supporting, laced-steel towers, while new 161-kV lines would probably be mounted on single- and double-pole steel structures. Line construction would require removal of trees within the right-of-way as well as any other nearby tall trees that could endanger safe operation of the line. Construction of the 500-kV support structures would require the excavation of foundations for each of the tower legs. Cranes and other heavy equipment would be used to construct the towers and pull the electrical conductor into place. After construction, the disturbed areas would be revegetated, and the right-of-way would be maintained periodically to control the growth of tall vegetation.

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.

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 the No Action Alternative and the three potential Action Alternatives described above. As analyses proceed, one or more alternatives may be eliminated due to technical infeasibility, unacceptable environmental impacts, or unreasonably high economic costs. TVA expects to evaluate multiple sites for the new substation and various routing options for new transmission lines.

Proposed Issues to be Addressed

The EA or EIS will contain descriptions of the existing environmental and socioeconomic resources within the area that would be affected by construction, operation, and maintenance of the proposed substation, transmission lines, and associated upgrades. Evaluation of potential environmental impacts to these resources will include, but will 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 described. The range of issues to be addressed in the environmental review will be determined, in part, from scoping comments. The preliminary identification of reasonable alternatives and environmental issues in this notice is not meant to be exhaustive or final.

Public and Agency Participation

The EA or EIS is being prepared to inform decision makers and the public about the potential environmental effects of TVA's options for meeting anticipated electric power demands in central Tennessee. The draft EA or EIS is anticipated to be available in late 2011. Any changes to this schedule will be posted on the TVA Web site: http://www.tva.gov/power/projects/putnam_cumb/index.htm. The environmental review process will also serve to inform the public and the decision makers of the reasonable measures that would be implemented to minimize adverse impacts. Other federal, state, and local agencies and governmental entities are invited to provide scoping comments. These agencies include, but are not limited to, the U.S. Army Corps of Engineers, U.S.

Fish and Wildlife Service, Tennessee Department of Environment and Conservation, and the Tennessee State Historic Preservation Officer.

The public is invited to submit comments on the scope of the environmental review no later than the date given under the DATES section of this notice. TVA will conduct a public scoping meeting on January 20, 2011. This open house meeting will begin at 3:00 p.m. and end at 7:00 p.m. CST. The meeting will be held at the Willow Place Conference Center, Cascade Hall, located at 225 North Willow Avenue, Cookeville, Tennessee. At the meeting, TVA will present overviews of the proposed project and the environmental review process, answer questions, and solicit comments on the issues of interest to the public. The meeting will be publicized through notices in local newspapers, TVA press releases, on the TVA Web site at <http://www.tva.gov/environment/reports/putnam/index.htm> and in letters to local elected officials.

Dated: January 13, 2010



Anda A. Ray,
Senior Vice President, Environment and Technology.


