

BILLING CODE 8120-08-P

TENNESSEE VALLEY AUTHORITY

Environmental Impact Statement – Transmission System Vegetation Management Program

AGENCY: Tennessee Valley Authority

ACTION: Notice of Intent

SUMMARY: The Tennessee Valley Authority (“TVA”) intends to prepare an Environmental Impact Statement (“EIS”) to address the management of vegetation on its transmission system. In order to ensure that electric service to the public is not disrupted by outages on its transmission lines, TVA must control the vegetation on about 260,000 acres of the rights of way (“ROW”) for those lines. This EIS will programmatically consider the impacts of vegetation management activities on approximately 17,000 miles of transmission line.

DATES: Comments on the scope of the EIS must be received on or before March 20, 2017.

ADDRESSES: Written comments on the scope of the EIS should be sent to Anita E. Masters, Tennessee Valley Authority, 1101 Market Street, BR 4A, Chattanooga, Tennessee 37402. Comments also may be submitted online at tva.com/nepa or by email to aemasters@tva.gov.

FOR FURTHER NEPA INFORMATION CONTACT: Anita Masters, 1101 Market Street BR 4A, Chattanooga, TN 37402, aemasters@tva.gov.

FOR INFORMATION ON CURRENT ROW MAINTENANCE PRACTICES: See TVA's Transmission webpage (<https://www.tva.gov/Energy/Transmission-System/Right-of-Way-Maintenance>).

SUPPLEMENTARY INFORMATION: This notice is provided in accordance with the regulations promulgated by the Council on Environmental Quality (40 C.F.R. parts 1500 to 1508) and TVA's procedures implementing the National Environmental Policy Act (NEPA) (<https://www.tva.com/Environment/Environmental-Stewardship/Environmental-Reviews/NEPA-at-TVA>.)

TVA Power System and ROW Maintenance

TVA is a federal agency and instrumentality of the United States created by and existing pursuant to the TVA Act of 1933. Its broad mission is 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 operates the nation's largest public power system, producing approximately four percent of all of the electricity in the nation. TVA provides electricity to most of Tennessee and parts of Virginia, North Carolina, Georgia, Alabama, Mississippi, and Kentucky. Currently, it serves more than nine million people in this seven-state region. The TVA Act requires the TVA power system to be self-supporting and operated on a nonprofit basis and directs TVA to sell electricity at rates as low as are feasible. TVA

receives no taxpayer funding, deriving virtually all of its revenues from sales of electricity.

Most of the electricity is generated on the TVA system from 3 nuclear plants, 8 coal-fired plants, 9 simple-cycle combustion turbine plants, 7 combined-cycle combustion turbine plants, 29 hydroelectric dams, a pumped-storage facility, a methane-gas cofiring facility, a diesel-fired facility, non-TVA owned facilities under power purchase agreements, and various small solar photovoltaic facilities. The electricity generated by these resources is transmitted along high-voltage transmission lines to TVA business customers and local power companies. The local power companies then distribute the electricity to end users such as residents, business owners, and public entities like school systems and hospitals. Distribution lines are owned and operated by local power companies and are the power lines typically seen along streets in neighborhoods.

TVA transmission lines are high-voltage (46-kilovolts or more, with 161-kilovolt most common) and typically have three conductors (wires) suspended from large structures (towers or tall poles) in ROWs that are cleared of buildings and tall vegetation. In most cases, transmission line ROWs vary in width from about 75 feet to 200 feet, with the width increasing with the voltage of the line. Most of TVA's ROWs are located on easements that TVA acquired from property owners who still can use easement areas in ways consistent with TVA's operation and maintenance of its transmission lines. These easements give TVA the legal right to manage vegetation within its ROWs as well as adjacent to the ROW if vegetation is tall enough to pass within ten feet of a conductor or strike a structure should it fall toward the transmission line.

TVA manages its transmission system according to industry-wide standards established by the North American Electric Reliability Corporation (NERC). Those standards state that the TVA transmission system must be able to survive single-failure events while continuing to serve customer loads with adequate voltage and no overloaded facilities while maintaining adequate transmission line clearances as required by the National Electric Safety Code (NESC).

In order to meet its goal of providing the public safe and reliable electricity, TVA must control the vegetation that would otherwise grow up on its ROWs. When trees or branches get too close to high-voltage transmission lines, electricity can arc through the air like a lightning bolt, seeking the nearest path to the ground, such as a tree. When this occurs, the electricity can cause a fault on the transmission line, severely damaging or destroying nearby property and structures (e.g., houses), and injuring nearby people. The cost and disruption to people's lives when this happens can be serious even if people are not injured from the arc or flash over itself. In August 2003, a single tree contacted a transmission line in Ohio and triggered cascading transmission line failures and blackouts from Ontario, Canada to the northeastern United States. Eleven people died as a result of these blackouts and the economic impact was estimated at \$6 billion. As a result of the event, mandatory reliability standards were developed and implemented. These standards are monitored and enforced by NERC.

TVA uses an integrated approach to vegetation management on its ROWs designed to encourage low-growing plant species and discourage tall-growing plant species. This includes the initial clearing of trees and other tall-growing vegetation from ROWs. Vegetation re-clearing along ROWs utilizes various management techniques

including mechanical mowing (using tractor-mounted rotary mowers), tree removal by means of chain saws or other mechanized equipment, and non-restricted herbicides registered with the U.S. Environmental Protection Agency when appropriate. TVA's approach to vegetation management historically has taken into account whether the vegetation is in the "wire zone," the area directly under the transmission line and between the outermost conductors, or the "border zone," the areas between the wire zone and the edge of the ROW, as well as whether vegetation outside the ROW is tall enough to pass within ten feet of a conductor or strike a structure should it fall toward the transmission line.

The purpose of this EIS is to examine at a programmatic level the potential environmental impacts of vegetation management practices along the approximately 17,000 miles of TVA's transmission line within its seven-state power service area and alternative management approaches.

EIS Scope

Scoping is a process that allows the public to comment on an agency's plans for an EIS. This includes identifying issues that should be studied and those that have little significance. The public's views on alternative actions that meet the stated purpose of the EIS are also helpful in preparing an EIS.

TVA anticipates evaluating several alternative management approaches, but these could change as the NEPA EIS process progresses. As required by applicable regulations, one of those alternative approaches is the No Action Alternative, or no change to TVA's current management practices. TVA has evaluated growth rates,

climate, conductor sag and sway to design a cyclical, preemptive vegetation management program that is currently practiced on TVA's transmission line system. TVA's current management practices target existing incompatible vegetation within the ROW as well as vegetation that will become incompatible in the future. Under the No Action Alternative, TVA's ROW management personnel have discretion to manage the risk associated with vegetation growth that otherwise would be cleared. This approach allows TVA's ROW management personnel to allow exceptions to having the entire width of the ROW cleared by TVA. This approach is subject to the availability of financial resources. Any "danger" tree adjacent to the ROW is cleared by TVA. Danger trees include any trees located beyond the cleared ROW, but that are tall enough to pass within ten feet of a conductor or strike a structure should it fall toward the transmission line. TVA would continue to maintain its ROWs consistent with this approach, or any different approach that may be mandated during development of the EIS.

A second alternative approach is utilizing integrated vegetation management (IVM) practices with a wire zone / border zone approach, where TVA sets objectives, identifies compatible and incompatible vegetation. TVA would then consider action thresholds and evaluate, select and implement the most appropriate methods to achieve the established short and long-term objectives. This vegetation control method is based on considerations of environmental impact and anticipated effectiveness, safety, reliability, economics, site topography and other factors. This approach would be subject to the availability of financial resources. Any "danger" trees adjacent to the ROW would be cleared by TVA.

A third alternative approach to be considered is a border-to-border (BTB) approach in which TVA would remove all vegetation except the low-growing vegetation for the width of the easement on TVA ROWs (includes both the wire and border zones as well as danger trees outside the ROWs). This approach would be subject to the availability of financial resources. TVA ROWs would take on the appearance and characteristics of natural meadows, as well as promote inflorescence by keeping woody stem counts low.

A number of natural resource impacts would be evaluated in the EIS. These include potential impacts on air quality, surface water, groundwater, aquatic ecology, vegetation, wildlife, threatened and endangered species, wetlands, forest resources, and natural areas and parks. In addition, TVA would evaluate socioeconomic impacts and impacts on archaeological and historic resources and aesthetics (visual, noise, and odors). Potential impacts from siting lines in floodplains occur when new lines are constructed and are usually addressed in the environmental reviews done for those lines. Accordingly, TVA does not plan to address floodplain impacts in this programmatic EIS unless circumstances warrant.

These analyses will be conducted at a programmatic, transmission system-wide level. For new transmission lines, TVA considers the potential effects of the initial ROW clearing and of continuing site-specific vegetation management. For ongoing vegetation management of transmission lines already on the TVA system, TVA considers potential site-specific impacts in its NEPA reviews of transmission sector analyses, including impacts on identified sensitive areas. TVA divides its entire transmission system into discrete “sectors” and conducts environmental analyses within specific sectors slated for

vegetation maintenance each year. TVA anticipates that these sector area analyses would continue in the future, tiering off of the programmatic EIS when it is completed.

Public Participation

The public is invited to submit comments on the scope of this EIS no later than the date identified in the "Dates" section of this notice. After TVA prepares a draft of the EIS, TVA will release it for public comment. TVA anticipates holding public meetings at various locations throughout TVA's seven-state service area after release of the draft EIS. Meeting details will be posted on TVA's website at tva.gov/nepa.

Dated: 11/13/2017



M. Susan Smelley
Director, Environmental Permitting & Compliance