

Document Type: EA-Administrative Record
Index Field: Finding of No Significant Impact (FONSI)
Project Name: Entergy Florence-South Jackson, Mississippi, 115-kV Transmission Line Upgrade
Project Number: 2009-65

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
FLORENCE-SOUTH JACKSON, MISSISSIPPI
115-KILOVOLT TRANSMISSION LINE UPGRADE
HINDS, RANKIN, AND SCOTT COUNTIES, MISSISSIPPI

Tennessee Valley Authority (TVA) proposes upgrading approximately 7.5 miles of an existing 115-kilovolt (kV) transmission line on the Entergy Mississippi, Inc. (EMI), transmission system in Hinds and Rankin counties, Mississippi. The upgrade is needed to support the transfer of 724 megawatts (MW) of electricity from the Ackerman (Suez Choctaw) generating facility to the TVA transmission system. Additionally, two switches would be replaced at EMI's Morton 115-kV Substation in Scott County. TVA would provide the funds to EMI to complete these upgrades.

The transmission line and substation upgrades would address the EMI transmission system constraints allowing TVA to meet North American Electric Reliability Corporation standards and to ensure that the transmission system would be capable of supporting the generation capacity from the Ackerman facility. TVA has reviewed the proposed action and reasonable alternatives in an environmental assessment (EA) prepared in accordance with its procedures for implementing the *National Environmental Policy Act* (NEPA). This EA is incorporated by reference.

Two primary alternatives, i.e., the No Action Alternative and an Action Alternative, were analyzed in the EA. Under the No Action Alternative, TVA would not supply funding to EMI; therefore, the upgrades to their transmission system would not be completed, and the EMI transmission system would continue to function as it currently does. With the implementation of this alternative, the TVA Transmission Provider could not provide the required firm transmission service. The addition of the generating capacity from the Ackerman facility without the upgrades could result in overloads on parts of the EMI transmission system with the loss of TVA's Choctaw-West Point 500-kV Transmission Line. As a result, TVA would not be able to utilize the contracted 724 MW of generated electricity efficiently, leading to a high-risk level of electrical energy interruptions within the TVA system in the future.

Under the Action Alternative, TVA would pay EMI to upgrade the 7.5 miles of the existing South Jackson-Florence 115-kV Transmission Line and to replace switches within the existing Morton Substation to meet the proposed TVA transfer capability. All of the proposed transmission line construction activities would take place within EMI's existing right-of-way (ROW). Implementation of this alternative would support the firm transmission network service transfer of 724 MW of generated electricity from the Ackerman generating facility to the TVA transmission system by addressing the constraints identified on the EMI transmission system.

Based on the analyses in the EA, TVA concludes that implementation of the Action Alternative would have minor and insignificant impacts on terrestrial plant or wildlife communities, aquatic life, groundwater, wetlands, and visual and aesthetic quality. No effects to floodplain functions are anticipated, and the proposed action is consistent with Executive Order 11988 on floodplain management.

The proposed upgrades would occur along transmission line ROW and within an existing substation. The existing transmission line crosses the Pearl River, a stream listed on the Nationwide Rivers Inventory because of outstanding scenery along the river. Since the proposed action involves the replacement of an existing line, no decline in scenic integrity at any of the viewpoints is anticipated. Further, because the Pearl River is listed as federally designated critical habitat for the Gulf sturgeon, no construction activities would be allowed within the channel, and a 100-foot streamside management zone on each bank would be established. The proposed action would not affect endangered or threatened species or the federally designated critical habitat, and the U.S. Fish and Wildlife Service has concurred with this determination. No effects to surface water, recreation, parks, or natural areas are anticipated.

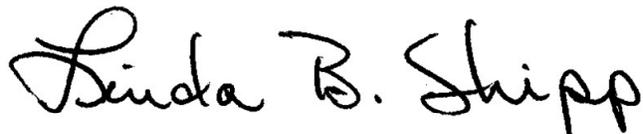
The proposed action would not adversely affect any historic properties eligible for or listed in the National Register of Historic Places. The Mississippi State Historic Preservation Officer has concurred with this determination.

Mitigation

EMI will implement best management practices and other routine measures listed in the appendices of the EA during construction and operation of the proposed transmission line. TVA has not identified the need for any nonroutine mitigation measures to further reduce the potential environmental impacts.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, we conclude that the proposed action involving the construction upgrades on the existing EMI transmission line and substation would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



11-12-09

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Date Signed