

## **ADOPTION AND FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY**

### **POWER PURCHASE AGREEMENT - MERIDIAN SOLAR FACILITY LAUDERDALE COUNTY, MISSISSIPPI**

The Tennessee Valley Authority (TVA) is proposing to enter into a power purchase agreement (PPA) with Silicon Ranch Meridian, LLC for the purchase of power generated at the proposed solar photovoltaic (PV) system at Naval Air Station (NAS) Meridian, located in Lauderdale County, Mississippi.

The U. S. Department of Navy (Navy) is proposing to lease approximately 40 acres of land at NAS Meridian to Silicon Ranch Meridian, LLC for the construction and operation of the solar PV system. The purpose is to increase Navy installation energy security, strategic flexibility, resource availability and meet the renewable energy standards put forth by the Secretary of the Navy's 2009 energy goals, and other federal directives such as Executive Order (EO) 13693. The Navy reviewed the potential impacts of constructing and operating the proposed Solar PV system, associated infrastructure and interconnection facilities. The Navy issued the final Environmental Assessment (EA) and finding of no significant impact (FONSI) on May 18, 2017 for the proposed solar PV system. The Navy's final EA is herein incorporated by reference.

Although TVA and the Navy are making different decisions relating to this project, the same on-the-ground activities and environmental impacts would occur as a result of their respective actions. Accordingly, TVA staff has carefully reviewed the Navy's EA, supporting documentation, underlying reports, agency consultation letters, findings, and public comments to verify the adequacy of the Navy's assessment, and to ensure the bounding of potential impacts of TVA actions. Upon making a determination of adequacy of the Navy's EA, TVA is adopting that EA for purposes of its own NEPA review.

#### **Alternatives**

TVA considered two alternatives: the No Action Alternative and the Action Alternative. In the No Action Alternative, TVA would not enter into an agreement for the purchase of power. Adoption of the No Action Alternative would result in the same impacts as the No Action Alternative considered by the Navy under which the Navy would not lease land to a third-party solar developer, the solar facility and ancillary features would not be built or operated and there would be no effects on the environment.

Under the Action Alternative, TVA would enter into an agreement with Silicon Ranch Meridian for the purchase of power. Consequences of the Action Alternative would be the same as described under the Navy's assessment of the Action Alternative, which involves the lease of approximately 40 acres at NAS Meridian to a third-party solar power developer that would construct and operate a solar PV system, consisting of PV cells that collect energy from sunlight for the production of electricity, and associated infrastructure and interconnection facilities. The Action Alternative also includes up to 5 acres of existing utility ROW that would be required for the approximately 1-mile interconnection line that would connect the solar array to an existing substation on the NAS Meridian base.

## **Impacts Assessment**

Approximately 45 acres would be affected by the project. Adverse impacts to land use, topography and soils, biological resources, socioeconomics and environmental justice, waste management, health and safety, as well as cumulative impacts to these resources would be minimal and/or temporary. Any adverse impacts to air quality, noise, and water resources would also be minimal, subsiding after the 7-month construction period. The proposed project would not impact visual resources, water supply or wastewater infrastructure, geology, traffic and transportation, noise or farmlands. No endangered or threatened species would be affected. No historic properties would be affected and the Mississippi State Historic Preservation Officer has concurred with this determination.

As a result of site preparation construction activities, an estimated 40 acres of vegetation would be permanently removed. Approximately 90% of the site is evergreen forest, with the remaining areas a combination of mixed forest and woody wetlands. The removal of this habitat may result in displacement of wildlife and loss or conversion of suitable habitat for various wildlife species. However, wildlife species common to the area would be expected to return to the peripheral areas and to portions of the project site where trees and brush habitat have not been cleared.

Approximately 1.2 acres of wetlands occur within the proposed site. The proposed array and ancillary facilities would be situated to avoid excavation and filling of wetlands. However, trees would be cleared within wetlands to minimize potential shading of panels resulting in minor impacts on wetlands. Trees would be cut and timber either left in place or pulled out, minimizing ground disturbance to the extent possible. A 200-foot segment of wetlands within the proposed interconnection line route would be avoided entirely. Minor indirect impacts in the form of erosion and sedimentation could temporarily result from construction activities. However, these impacts would be minimized by the maintenance of a 30-foot buffer around field-delineated wetlands during construction activity and the use of Best Management Practices (BMPs). In addition, any construction project that disturbs one or more acres of land requires a state-issued General Permit for Construction Stormwater from the state of Mississippi as well as a Stormwater Pollution Prevention Plan. Compliance with permit conditions as well as implementation of BMPs would minimize impacts on nearby wetlands. In terms of EO 11990 (Protection of Wetlands), there is no practicable alternative that would avoid impacting such wetlands given the operational constraints associated with the proposed project. Impacts to wetlands would be minimized consistent with the order.

Approximately 6.4 acres of the proposed 40-acre solar array site are 100-year floodplains. The solar array would be designed to avoid development within the floodplains; however, trees would be cleared in these areas. The existing interconnection line ROW crosses floodplains which may have a minor temporary impact due to excavation activities required during line installation and burial; however, no grubbing, grading, or fill would occur within the floodplain. Given operational constraints associated with the proposed project, there is no practicable alternative to avoid impacts to the 100-year floodplain. However, consistent with EO 11988 (Floodplain Management) impacts to the floodplain would be minimized.

## **Public and Intergovernmental Review**

The Navy provided for public and agency review of the EA from March 15, 2017 to March 31, 2017. A notice of availability of the Draft EA was published in the Meridian Star and on the newspaper's website on March 16, 17, and 18, 2017. A hard copy and CDs of the EA were available for viewing at the Meridian Public Library for the 15 day public comment period.

**Mitigation**

The environmental effects of the Solar PV facility construction and operation were determined to be minor and insignificant. No additional mitigation beyond the use of routine mitigation measures and BMPs was determined to be necessary.

**Conclusion and Findings**

TVA has independently reviewed the Navy EA and the underlying reports and has found the Navy document to be adequate and fully encompassing of the environmental effects and potential consequences of TVA's proposed actions. TVA is therefore adopting the 2017 Navy EA. Based on the EA, TVA concludes that entering into the PPA would not be a major federal action significantly affecting the environment. Accordingly, preparation of an environmental impact statement is not required.



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Date Signed