

ADOPTION OF ENVIRONMENTAL ASSESSMENT AND ISSUANCE OF FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

The Tennessee Valley Authority (TVA) is proposing to enter into a power purchase agreement (PPA) with the Chattanooga Metropolitan Airport Authority for the purchase of power generated from a solar array proposed for the Chattanooga Metropolitan Airport (CHA) in Hamilton County, Tennessee. The proposal would involve the development of a 1 to 3 megawatt (MW) photovoltaic solar array system to be located on 12 acres of the existing airport site near its western boundary. Interconnection would be with the local power distributor, the Chattanooga Electric Power Board.

In compliance with the National Environmental Policy Act (NEPA), the Federal Aviation Administration (FAA) Memphis Airports District - Southern Region Airports Division reviewed the potential impacts of constructing and operating the proposed solar facility in order to reduce air emissions from the Chattanooga Metropolitan Airport. The FAA issued a final environmental assessment (EA) and finding of no significant impact (FONSI) on May 3, 2011 for the proposed solar array. The FAA Final EA dated May 3, 2011, is incorporated herein by reference.

CHA is located in Hamilton County, a region designated by the U.S. Environmental Protection Agency as non-attainment for the criteria pollutant, particulate matter (PM 2.5). The FAA's stated purpose in its final EA is to reduce criteria pollutant emissions from the airport and reduce electricity expenses for the airport. The proposal is eligible under the Voluntary Airport Low Emission (VALE) program. VALE is a national program to reduce airport ground emissions at commercial service airports located in designated air quality nonattainment and maintenance areas. The program was established under the *Vision 100* Century of Aviation Reauthorization Act of 2003 (P.L. 108-176). The VALE Program allows airport sponsors to use the [Airport Improvement Program](#) and [Passenger Facility Charges](#) to finance low emission vehicles, refueling and recharging stations, gate electrification, and other airport air quality improvements. In a letter dated March 2, 2011, the Tennessee Department of Environment and Conservation agreed to issue Airport Emission Reduction Credits to the sponsor. Over a 20-year useful life, the proposed solar array system would achieve a reduction in emissions of all criteria air pollutants.

Under the TVA Standard Offer program, TVA seeks to obtain cost-effective renewable energy in support of expanding the renewable energy portion of its generation portfolio. These efforts are described in TVA's 2011 Integrated Resource Plan. The Renewable Standard Offer program encourages the growth of the renewable generation industry in the region, promotes TVA's economic development goals by helping create new clean-energy jobs, and supports TVA's vision for cleaner air and greater energy efficiency.

Although TVA and the FAA are making different decisions regarding this project, the same on-the-ground activities and environmental impacts would occur as a result of the respective agency actions. The potential environmental impacts of TVA's actions would be the same as those of FAA's actions. Accordingly, TVA staff has carefully reviewed the FAA EA, supporting documentation, underlying reports, agency consultation letters, findings, and comments to verify

the adequacy of FAA's assessment, and to ensure the bounding of potential impacts of TVA actions. Upon this determination of adequacy, TVA is adopting the FAA EA.

Alternatives

In its environmental review of the project, FAA considered a No Action Alternative and an Action Alternative. Under the FAA No Action Alternative, the facility and its ancillary features would not be built or operated, and there would be no effects on the environment. The FAA Action Alternative involved the construction and operation of the solar array and interconnection to the local distributor. Under the Action Alternative, FAA considered the effects of implementing a project 1-3 MW in size. The potential for environmental impacts under alternatives reviewed by FAA encompassed and bounded any impacts that might accrue from TVA's actions.

TVA considered two alternatives, i.e., the No Action Alternative and the Action Alternative. Under the No Action Alternative, TVA would not enter into an agreement to purchase power from the proposed solar array. Under the Action Alternative, at this time TVA would enter into an agreement for the purchase of as much as 1 MW of power from the solar array. This TVA action would result in the construction and operation of the solar array facility. The project would involve minor trenching and backfilling in a previously disturbed area to facilitate installation of underground conduits for the solar energy system. The maximum height of the array would be 9 feet. In the future, the Chattanooga Metropolitan Airport Authority plans to expand the facility to 3 MW (as bounded by the FAA EA). The project would involve a phased installation, beginning with the installation of an array of solar panels capable of generating the initial 1 MW of power. Additional arrays capable of producing an additional 2 MW would eventually be installed. The arrays would have a low-slope orientation to maximize the solar exposure. The future purchase would require a new PPA to be negotiated; however that eventuality is a reasonably foreseeable action. The Action Alternative is TVA's preferred alternative. As the impacts of the full 3 MW development have been adequately and comprehensively evaluated in the FAA EA, TVA is issuing this FONSI to include the entire foreseeable 3 MW purchase of power from the facility.

Impacts Assessment

The FAA EA documented the potential direct, indirect and cumulative impacts from construction and operation of the solar array to the following environmental resources and amenities: federal and state-listed endangered or threatened species; historic, architectural, archaeological and cultural resources; environmental justice; noise; compatibility with local land use; impact on nearby properties and human populations; socioeconomic impacts; transportation; air quality; water quality; local streams and wetlands; biotic communities and wildlife habitat; floodplains; farmland; energy supply and natural resources consumption; light emissions; solid waste; generation of hazardous materials; and consistency with local planning and zoning. Potential effects were determined to be nonexistent to minor.

No impacts to the waters of the United States are anticipated as a result of the proposed project. No endangered or threatened species would be affected, and the U.S. Fish and Wildlife Service has concurred with this determination. No properties listed or eligible for listing on the National Register of Historic Places would be affected by this action. The Tennessee State Historic Preservation Officer has concurred with this determination. FAA resolved an issue with respect to revision of outdated floodplain mapping and determined that the proposed action is not a floodplain action as defined in 10 CFR Part 1022, Compliance with Floodplain/Wetlands

Environmental Review Requirements. TVA staff has reviewed that documentation, and the requirements for Executive Order 11988, Floodplain Management, have been fulfilled.

Public and Intergovernmental Review

The FAA consulted with the following agencies in the preparation of the EA:

- Federal Aviation Administration
- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- United States Department of Agriculture
- Tennessee Department of Environment and Conservation
- Tennessee Wildlife Resources Agency
- Federal Emergency management Agency

The FAA posted a notice announcing the availability of the draft EA and Draft FONSI in the Chattanooga *Times Free Press* newspaper. This notice provided a 30-day opportunity for public review and comment on the proposed project. No comments or requests for a public hearing were received by the airport or the FAA. The Final EA and FONSI were also advertised in the *Times Free Press* and were also placed on the public website of the Chattanooga Metropolitan Airport Authority.

Mitigation

Neither the FAA nor TVA has identified the need for non-routine mitigation. The Chattanooga Metropolitan Airport Authority will be responsible for obtaining all necessary construction permits. Best management practices to be employed include remaining outside of the existing stream buffers on the airport and development and implementation of an erosion control plan specific to the project to be utilized during construction.

Conclusion and Findings

TVA has independently reviewed the FAA EA, the underlying reports and agency comments, and has determined that the FAA document is adequate and fully encompasses the environmental effects and potential consequences of TVA's proposed action. TVA is, therefore, adopting the 2011 FAA EA. Based on the findings in the EA, TVA concludes that the preferred alternative of entering into the PPA for purchase of power (up to 3 MW) from the proposed solar facility 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