

FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

RIDGELY ENERGY FARM PROJECT LAKE COUNTY, TENNESSEE

The Tennessee Valley Authority (TVA) has entered into a power purchase agreement (PPA) with Ridgely Energy Farm, LLC (referred to herein as “Ridgely Solar”), to purchase the power generated by the proposed Ridgely Solar Project (Project) in Lake County, Tennessee, subject to satisfactory completion of all applicable environmental reviews. The proposed Project is able to accommodate as much as 300 megawatts (MW) alternating current (AC) in generating capacity and would be constructed and operated by Ridgely Solar. Under the terms of the conditional PPA between TVA and Ridgely Solar, TVA would purchase the electric output generated by the initial 177 MW proposed solar facility on the Project Site for an initial term of 20 years, subject to satisfactory completion of all applicable environmental reviews. TVA also proposes to build the interconnection facilities and communications equipment required to connect Ridgely Solar to the existing electrical grid. This includes the construction of a new 161-kilovolt (kV) multi-breaker ring bus switching station and subsequent connection to the existing TVA Tiptonville to Highway (Hwy) 412/Dyersburg 161-kV transmission line (referred to herein as the Lake County, TN 161-kV Switching Station), in addition to any required system protection, upgrades, and/or communication equipment on the existing 161-kV transmission line between the TVA Tiptonville Substation and the proposed Lake County, TN 161-kV Switching Station. TVA is a corporate agency of the United States that provides electricity for business customers and local power companies serving nearly 10 million people in parts of seven southeastern states called the Tennessee Valley. TVA’s mission is to serve the people of the Tennessee Valley region, and we do that through three main areas of work – energy, the environment, and economic development.

TVA produces or obtains electricity from a diverse portfolio of energy sources, including solar, hydroelectric, wind, biomass, fossil fuel, and nuclear. In 2015, TVA completed an Integrated Resource Plan (IRP) and associated Environmental Impact Statement (EIS) (TVA 2015). The IRP identified the various resources that TVA intends to use to meet the energy needs of the TVA region over the 20-year planning period while achieving TVA’s objectives to deliver reliable, low-cost, and cleaner energy and to reduce environmental impacts. These energy resources from the 2015 IRP included the addition of between 175 and 800 MW (AC) of solar capacity by 2023. In June 2019, TVA released the final 2019 IRP and the associated EIS (TVA 2019a). This updated IRP provides further direction on how TVA will deliver clean, reliable and affordable energy in the Valley over the next 20 years, and the associated EIS describes the natural, cultural and socioeconomic impacts associated with the IRP. The 2019 IRP recommends solar expansion and anticipates growth in all scenarios analyzed, with most scenarios anticipating 5,000-8,000 MW and one anticipating up to 14,000 MW by 2038 (TVA 2019a). Customer demand prompted TVA to release a Request for Proposal (RFP) for renewable energy resources (2019 Renewable RFP). The PPAs that resulted from this RFP will help TVA meet immediate needs for additional renewable generating capacity in response to customer demands and fulfill the renewable energy goals established in the 2019 IRP. The Proposed Action would provide cost-effective renewable energy consistent with the IRP and TVA goals. The potential effects of the Proposed Action are described in an environmental assessment (EA) incorporated herein by reference.

Alternatives

The subject EA evaluates two alternatives: the No Action Alternative and the Proposed Action Alternative. Under the No Action Alternative, TVA would not purchase the power generated by the Project under the 20-year PPA with Ridgely Solar, and TVA would not be involved with the Project. If TVA were to select this alternative, and Ridgely Solar elected not to proceed with the Project, then Ridgely Solar would not construct any facility on any tracts of land in Lake County, Tennessee, and TVA would not make the associated modifications to its transmission system. Ridgely Solar would not complete the purchase of the property necessary to construct the Preferred Alternative or make tax payments associated with the project to Lake County in accordance with the property tax agreement Lake County put in place to attract capital investment for the Project. Existing conditions would remain unchanged (i.e., property would remain as predominantly disturbed agricultural land) and agricultural activities would likely continue. In addition, TVA would continue to rely on other sources of generation described in the 2019 IRP (TVA 2019a) to ensure an adequate energy supply and to meet its goals for increased renewable and low greenhouse gas (GHG)-emitting generation. Under the No Action Alternative, there would be no project-related changes to land use, natural resources, or socioeconomics in the immediate future.

Ridgely Solar would acquire approximately 2,344 acres of land (Project Site) in Lake County, Tennessee, and construct, operate, and maintain a single-axis tracking PV solar power facility. In addition, the Project would include transmission upgrades to a 5.5-mi long, 100-ft wide stretch of existing TVA transmission line right-of-way (ROW) that would occupy approximately 60 acres. Therefore, the total area evaluated for the Proposed Action is referred to as the “Project Area” and includes both the Project Site and the transmission ROW, a total of approximately 2,404 acres. Ridgely Solar would construct a Project Substation (the Ridgely Solar, TN 161-kV Substation) at the Project Site. The Project would interconnect to TVA’s existing Tiptonville to Hwy 412/Dyersburg 161-kV transmission line, which traverses the Project Site at its northeast corner. TVA would construct a line-tap into the existing transmission line to connect the proposed new Lake County, TN 161-kV Switching Station, also located on the Project Site. This EA assesses the impact of TVA’s action of entering into the PPA with Ridgely Solar, the associated impacts of the construction and operation of the proposed solar facility (including substation) by Ridgely Solar, and the transmission interconnections and switching station proposed by TVA.

Construction of the Project would require site preparation (surveying and staking, removal of tall vegetation, grading, clearing and grubbing as needed, installation of a perimeter security fence and area lighting as required for security and compliance with local ordinance, and preparation of construction laydown areas) prior to solar array assembly and construction, which includes driving steel piles for the tracker support structures, installation of solar panels, electrical connections and testing/verification.

Construction activities would take approximately 12 months to complete using a crew that ranges from 200 to 300 workers. Work would generally occur Monday through Friday from 7 am to 7 pm. Additional hours could be necessary to make up schedule deficiencies or to complete critical construction activities. During the Project startup phase, equipment and system testing and similar activities could continue 24 hours per day, 7 days a week. Once construction is completed, the Project Site would be revegetated with low-growing native grass seed. The Project components would be enclosed together by chain-link security fencing. The areas within the security fencing would contain blocks of solar panels and inverters, associated equipment,

and infrastructure including a Project substation, switching station, operation and maintenance (O&M) building, access roads, and electrical cabling.

Once the facilities are completed, there would be minimal human activity during operation. Moving parts of the solar facility would be restricted to the east-to-west facing tracking motion of the solar modules. Otherwise, the PV modules would collect solar energy and transmit it to the TVA power grid. Apart from routine maintenance periodic motor replacement, inverter air filter replacement, fence repair, vegetation control, periodic array inspection, and routine repairs and maintenance, the Project Site would be relatively undisturbed. Once operating, one to three regular O&M employees would be on-site as needed for scheduled/preventative maintenance or any unscheduled maintenance or outages. Routine maintenance work would normally take place during daylight hours on weekdays. Any work that might interfere with power production may occur in the early evening hours.

The TVA-preferred alternative for fulfilling the purpose and need for this Project is the Proposed Action. The Preferred Alternative (Proposed Action) would produce renewable energy for TVA and its customers with only minor direct and indirect environmental impacts, would help meet TVA's renewable energy goals, and would help TVA meet customer driven energy demands on the TVA system.

Impacts Assessment

The potential impacts of the Proposed Action Alternative are described in detail in the subject EA. Approximately 1,961 acres (81.6 percent) of the 2,404-acre Project Site would be cleared and potentially graded for the solar facility and approximately 103 acres would be temporarily disturbed (i.e., light surface preparation and tall vegetation removal would occur as needed within these 103 acres). These changes would cause minor adverse impacts to geology and soils due to minor, localized increases in erosion and sedimentation. Construction activities would cause short-term impacts to air quality, and visual resources and temporary increases in noise and traffic. Impacts to air quality are anticipated due to short-term, minor increases in vehicle emissions and fugitive dust suspension. Heightened noise during construction would primarily result from pile driving activities during daylight hours. With the implementation of federal and state requirements and BMPs, impacts to waste management and public and occupational health and safety during the life of the Project would be minor to negligible.

Due to the implementation of BMPs, no significant impacts to groundwater are expected and minor adverse impacts to floodplains and wetlands would be minimized. Steps taken in designing the site layout have avoided impacts to streams and wetlands to the extent practicable and have minimized adverse impacts to floodplains and their natural and beneficial values. Therefore, the Proposed Action would be consistent with the requirements of Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands). No federal or state jurisdictional streams would be adversely impacted, 1.07 acres of wetlands would be temporarily impacted in the ROW, and only 0.01 acre of wetlands would be permanently impacted on the Project Site. These impacts would be subject to the conditions of the United States Army Corps of Engineers Section 404 permit and the Tennessee Department of Environment and Conservation Aquatic Resource Alteration permit described in the EA.

Some long-term habitat loss would occur due to the clearing of approximately 1.7 acres of currently forested land on the Project Site and conversion to native grasses and/or other noninvasive vegetation. These changes would result in minor effects to common wildlife. A small amount of suitable summer roosting habitat for the Indiana bat and northern long-eared

bat would be removed for the construction of the proposed solar facility and electrical interconnection. TVA determined that the Proposed Action may affect but is not likely to adversely affect the northern long-eared bat and the Indiana bat. Consultation under Section 7 of the Endangered Species Act was performed with the United States Fish and Wildlife Service on November 19, 2019. Concurrence was received on January 25, 2021, on the condition that suitable habitat removal must occur between October 15 and March 31. The Project is not likely to adversely affect other federally or state-listed species or migratory bird species of concern.

TVA determined that the Project would have no adverse effects on any cultural resources determined eligible for listing in the National Register of Historic Places because culturally sensitive areas would be avoided. Pursuant to the National Historic Preservation Act, TVA consulted with the Tennessee Historical Commission (THC) and interested federally recognized Indian tribes regarding this agency determination. On February 16, 2021, the Cherokee Nation responded that the project does not intersect or adjoin Cherokee Nation cultural resources and asked to be consulted should unexpected discoveries occur. The THC concurred with TVA's findings on February 19, 2021.

Construction of the proposed facility could have short-term beneficial economic impacts due to the purchase of materials, equipment, and services and a temporary increase in employment and income. Operations would result in small positive, long-term impacts to employment in Lake County as a result of permanent and temporary job creation and increase in the local tax base. The proposed Project Area does not contain minority or low-income populations subject to consideration as potential environmental justice communities of concern. As such, no disproportionately high or adverse direct or indirect impacts on minority or low-income populations due to human health or environmental effects are expected to result from the Proposed Action. In addition, the Project would have minor indirect beneficial impacts to employment and income levels in the local region that could provide additional opportunities to nearby environmental justice populations.

The completed solar facility would change land use of the approximate 2,404-acre Project site from primarily agricultural land (cultivated crops) to solar. The change from agricultural land uses to solar land use would result in conversion of approximately 2,276.3 acres with soils designated as prime farmland by NRCS and farmland of statewide importance for the duration of site operations. Following decommissioning of the solar facility, most project components would be removed, and the majority of the Site could potentially be returned to agricultural use with little reduction in soil productivity or impact to prime farmland/farmland of statewide importance. Visual impacts during operation of the solar facility would be minor to moderate in the immediate vicinity and minor on a larger scale, due to the small number of available observers, intervening vegetation which would act as a visual screen, and additional vegetative screening mitigations that would be implemented. Noise impacts would be minor during construction, particular during the time when pile driving would occur, but negligible during operation and maintenance activities. Minor temporary impacts to air quality would occur during construction, primarily as a result of an increase in vehicular emissions in the vicinity. Minor beneficial effects to greenhouse gas emissions would occur during operations, as the nearly emissions-free power generated by the solar facility would help offset power that would otherwise be generated by the combustion of fossil fuels.

Public and Intergovernmental Review

On January 21, 2021, TVA issued the draft subject EA for a 30-day public review and comment period that ended on February 18, 2021. TVA informed the public of the review period via a

media advisory, a notice in Tiptonville's Lake County Banner, and outreach to key stakeholders, government agencies, elected officials, and interested federally recognized Indian tribes. TVA posted the draft EA on its webpage (www.tva.gov/nepa) with information about how to submit comments.

During the 30-day public review and comment period of the draft EA, a total of six (6) submissions were received: four submissions from members of the public (i.e., three submissions expressing support for the project and one submission inquiring about the construction schedule and adherence to mitigation measures), one email submission from the Tennessee Department of Environment and Conservation (TDEC) regarding a nearby TDEC Division of Remediation (DOR) site, and one letter submission from TDEC Office of Policy and Sustainable Practices providing comments on the Draft EA.

Mitigation

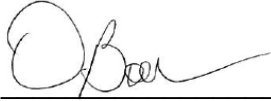
To address adverse impacts associated with the Proposed Action, Ridgely Solar and TVA would implement avoidance, minimization and mitigation measures in relation to potentially affected resources, including such measures required by permits, as described in detail in the EA. The Proposed Action would have no significant impact on floodplains and their natural and beneficial values because standard BMPs would be used during replacement activities; any road construction in the 100-year floodplain would not increase base flood levels by more than 1.0 foot; and demolition debris would be disposed of outside of floodways. To reduce noise impacts, construction would primarily occur during daylight hours. Ridgely Solar would implement a variety of plans and programs to minimize risks to public and occupational health and safety and to ensure proper handling of any chemicals or hazardous materials stored and utilized on site. Ridgely Solar would comply with the terms of the site-specific Storm Water Pollution Prevention Plan coordinated with the TDEC and implement other routine BMPs. During construction, silt fences and other appropriate erosion controls, such as temporary cover, would be used as needed to minimize exposure of soil and to prevent eroded soil from leaving the work area. The use of BMPs to properly maintain vehicles to avoid leaks and spills along with procedures to immediately address any spills that did occur, would minimize the potential for adverse impacts to groundwater. If traffic flow becomes an issue during construction, Ridgely Solar would minimize these effects by staggering work shifts, posting a flag person during heavy commute periods, and/or prioritizing access for local residents.

Tree clearing would only occur between October 15 and March 31 to minimize impacts to federally listed bat species. Tree clearing following this schedule would also minimize impacts to nesting birds by occurring outside of nesting season. To prevent adverse impacts to ovate-leaved arrowhead, the responsible TVA ROW Forester or Environmental Technician would coordinate with the TVA Botanist to implement avoidance measures before transmission upgrades begin in this ROW. Possible avoidance measures would include flagging plants in the field and installing temporary construction fencing and matting in wetlands. Following construction, the Project Site would be revegetated with native and/or noninvasive grasses and herbaceous vegetation to help minimize wildlife and water-quality impacts by maintaining open, short-grass habitats beneath and between the solar arrays. In right-of-way areas, only USEPA-approved herbicides would be used, where needed, and these would be applied in a manner that minimizes aquatic impacts. To minimize long-term project impacts to aesthetics, for any existing occupied, residential structure within 300 ft of a solar panel where there is no existing vegetative buffer present, a vegetative buffer will be installed to create a screen for such residence. Ridgely Solar and TVA have executed a legal agreement documenting the avoidance (during the term of the PPA) of seven archaeological sites (40LK71, 40LK128,

40LK130, 40LK131, 40LK142, 40LK157, 40LK161) that are potentially eligible for the National Register of Historic Places.

Conclusions and Findings

Based upon the analyses documented in the EA, TVA concludes that the Proposed Action Alternative of construction and operation of the solar generating facility and TVA's purchase of the electric output pursuant to the PPA with Ridgely Solar would not be a major federal action significantly affecting the environment. Accordingly, an EIS is not required.



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Date Signed