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FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY

POWER PURCHASE AGREEMENT – JONESBOROUGH SOLAR

The Tennessee Valley Authority (TVA) proposes to execute a 20-year power purchase agreement (PPA) through its Renewable Standard Offer (RSO) program with SR Jonesborough, LLC, an affiliate of Silicon Ranch Corporation (SRC), for electric power generated by the 5 megawatt (MW) Jonesborough Solar Project. The proposed photovoltaic (PV) solar facility is near the town of Jonesborough in Washington County, Tennessee. The proposed SR Jonesborough solar site (Jonesborough Solar Site) is one project that incorporates two end users. The project would consist of two solar facilities, one with a direct current (DC) generating capacity of 5 megawatts (MW) and a second with a capacity of 1.35 MW, co-located on the same property owned by SRC. The 5 MW facility would be connected to the Johnson City Power Board (JCPB) distribution network, which would transmit the power to the TVA network and the 1.35 MW facility will connect directly into the Aeroject Rocketdyne industrial facility located northwest of the project site.

TVA produces or obtains electricity from a diverse portfolio of energy sources including nuclear, fossil, hydro, solar, wind, and biomass. In 2011, TVA completed an Integrated Resource Plan (IRP) and associated environmental impact statement that identified the resources TVA would use to meet the energy needs of the TVA region over the 20-year planning period. Cost-effective renewable energy, including energy generated by solar PV, is one of the energy resources recommended in the IRP. Since 2011, TVA has undertaken several efforts to expand the contribution of renewable energy in its generation portfolio, including the establishment of the RSO program. The recently completed 2015 IRP reiterated the continued expansion of TVA's use of renewable energy. The proposed PPA would help meet this need and the Jonesborough solar facility would provide cost-effective renewable energy consistent with TVA goals.

TVA must decide whether to execute the PPA with SR Jonesborough, LLC. If TVA does execute the PPA, SR Jonesborough would construct and operate the 5 MW solar facility. The potential effects of TVA's proposed action, including the effects of constructing and operating the solar facility, are described in an environmental assessment (EA) which is 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 execute the PPA with SR Jonesborough, LLC and only the 1.35 MW solar facility would be constructed and operated. The 5 MW solar facility would not be constructed and operated and TVA would rely on other sources of generation to meet its renewable energy goals.

Under the Proposed Action Alternative, TVA would execute the PPA and SR Jonesborough would construct and operate both the 5 MW solar facility and the 1.35 MW solar facility. The

1.35 MW and 5 MW facilities, access road, and two distribution line easements would collectively occupy 42.5 acres on a 76.2-acre property owned by SR Jonesborough, and located between Old State Route 34 and Rambling Road approximately 2.2 miles southwest of Jonesborough, Washington County. The two easements will allow for a distribution line to connect the 1.35 MW arrays to Aerojet Rocketdyne and a separate distribution line to connect the 5 MW arrays to the existing JCPB power lines and Telford Substation. The proposed distribution line easement for the 1.35 MW facility would be 100 feet wide and the proposed distribution line easement for the 5 MW facility would be 50 feet wide. A 16-foot-wide access road would be constructed from Spider Barnes Road south of the project site and run approximately 0.4 mile northwest to the proposed solar arrays. Both facilities would use PV panels fastened to fixed-tilt metal racks supported by metal poles typically 10 feet long and driven up to 6 feet into the ground.

1.35 MW Facility - The 1.35 MW facility would occupy approximately 5 acres in the northwestern corner of the site. Clearing and grading of approximately 1.9 acres of forest would be required for construction of the solar arrays. In addition, approximately 1.94 acres of forest will also be cleared within the 100-foot-wide distribution line easement for the 1.35 MW facility. Approximately 10,000 117.5W First Solar modules will be installed on ground-mounted metal racks. Buried electrical cables would connect the rows to one AC power inverter. Trenches for buried cables will be backfilled and the ground surface returned to its original grade. The inverter would be connected by a buried cable to a pad-mounted 1,300 kVA transformer located along the eastern edge of the panel arrays, adjacent to the access road. The concrete transformer pads would be 20 feet wide by 30 feet long. A buried cable would connect the transformer to a riser pole and recloser located in the northeast corner of the site and an overhead line would run west from this point of interconnection to the Aerojet Rocketdyne industrial facility northwest of the project site.

Jonesborough 5 MW Facility - The Jonesborough 5 MW solar arrays would occupy approximately 20.2 acres in the north/northeastern portion of the 76.2-acre project site (Figure 3). The site is a relatively flat agricultural area and only minor grading with limited earthwork would occur. No buildings are located on site that would require removal. Clearing and grading of approximately 5.08 acres of forest would be required for construction of the solar arrays. Approximately 0.8 acre of trees would be cleared for the construction of the 5 MW facility access road and distribution line. An additional 6.97 acres of trees would be cleared south of the proposed solar arrays to eliminate shading of the panels. A total of 43,000 117.5 watt (W) First Solar modules would be installed on ground-mounted fixed-tilt metal racks oriented north to south in parallel rows. Buried electrical cables would connect the rows to two DC to alternating current (AC) power inverters. The inverters would be connected by a buried cable to pad-mounted 2,100 volt amps (kVA) transformers in the middle of the site adjacent to the access road. The concrete transformer pads would be 20 feet wide by 30 feet long. A buried cable would run from the transformers to a riser pole and recloser located in the northeast corner of the project site adjacent to the northeast termini of the access road. A disconnect switch, recloser, and metering would be located at the interconnection point. Trenches for buried cables will be backfilled and the ground surface returned to its original grade. Overhead lines would run north/northwest from the riser pole across Old State Route 34 to connect to the JCPB's existing 12.47-kV power line parallel to the north side of the road. The existing power line connects to the JCPB 12.47-kV Telford Substation located on the west side of Berry Ridge Road approximately 0.50 mile northwest of the solar facility's proposed interconnection point.

Once construction is completed, the facility site would be revegetated with low-growing grasses. A small storage shed (conex box) would be placed on the site and the facilities would be

enclosed by a 6-foot-tall chain link security fence. No night lighting is anticipated, and no water supply or sewer disposal facilities or services would be required. Construction would last 2 to 4 months and require between 50 and 100 people working on site for variable durations. Once the facilities are completed, there would be no on-site operators and periodic maintenance would be carried out by workers based outside the project area. Maintenance activities would include mowing the facilities to prevent vegetation from growing tall enough to shade the solar modules or otherwise interfere with their operation. Small areas of the facility may require limited use of herbicides to maintain vegetation. Maintenance would not include panel washing because the rainfall in this region is usually sufficient to keep surfaces of the panels clean and maintain their energy production at adequate levels.

TVA's preferred alternative is the Proposed Action Alternative. This alternative would fulfill the purpose and need for the action by providing TVA and its customers with additional renewable generating capacity with minor direct and indirect impacts.

Impacts Assessment

The potential impacts of the proposed action are described in detail in the EA. Implementation of the proposed action would change the land use of the proposed solar facility site from undeveloped farmland to rural industrial. This would have little effect on the future land use of adjacent tracts. The northern half of the project area is dominated by open grassland, with indications of hay harvesting. A 1.94-acre corridor of hardwood forest is located within the distribution line easement connecting to Aerojet Rocketdyne. Hardwood forest dominates the southern half of the project area. Approximately 20 acres of the 76.2-acre facility site are classified as prime farmland. While the construction and operation of the solar facility would remove this area from potential agricultural production, there would be little long-term impact on the soil productivity and the impacts on prime farmland would not be significant given the small area affected.

Because of the relatively shallow depth of trenching, impacts to groundwater are not expected. Water resources on the site are located in the northwest and central section of the project site. These water features consist of three wetlands, a pond, Little Limestone Creek, and its unnamed tributary, which are tributaries to the Nolichucky River. One isolated 0.16 acre wetland would be limited to the removal of woody vegetation as a result of the project and all jurisdictional water features will be avoided by the proposed action. SR Jonesborough would implement best management practices described in a project-specific Stormwater Pollution Prevention Plan and therefore the impacts to surface water would be minor. Approximately 2.28 acres of the project area would cross a Zone A floodplain. However, no filling, cutting, or alterations to the floodplain would result in a net rise. The proposed action would be consistent with the requirements of Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands).

The majority of the site is composed of open grassland and hardwoods. While construction and operation of the solar facilities would displace some of the wildlife present, the impacts to vegetation and wildlife would be insignificant. Suitable hunting and potential nesting/roosting habitat occurs for the state-listed common barn owl. However, due to the availability of large amounts of similar habitat nearby, impacts are not likely to the common barn owl. The proposed project will result in the clearing of approximately 10.7 acres of potential summer habitat for the northern long-eared bat and the Indiana bat. Removal of this habitat may affect these bat species. However, impacts to these bats would be mitigated by removing trees between November 15 and March 31, outside the bat's summer roosting season and in accordance with

USFWS Conservation Strategy for Forest Dwelling Bats in Tennessee through a contribution to Tennessee's Imperiled Bat Conservation Fund.

TVA identified two architectural/historic resource eligible for inclusion on the National Register of Historic Places (NRHP) occurring approximately 0.30 miles northeast of the proposed solar facility and no NRHP-eligible archaeological sites. The solar facility would not be visible from the two eligible resources and TVA determined that there will be no adverse effect on historic properties as a result of the proposed action, and the Tennessee State Historic Preservation Office concurred with this determination.

Construction activities would result in minor and short-term impacts to air quality and transportation. Once operating, the solar facilities would have beneficial impacts to air quality and greenhouse gas emissions as it would offset power that would otherwise be generated, at least in part, by fossil fuel combustion. The panels would face south and be partially visible to the vacant agricultural fields east and west of the project site when looking west. Due to the treeline along the southern property boundary, and distance from Old State Route 34, there will be restricted view of the PV arrays from the nearby residences and road. Therefore, overall visual impacts would be insignificant. At the nearest sensitive noise receptor, an occupied house approximately 60 feet from the entrance to the proposed access road, construction noise could be perceptible above background noise but would not exceed the 65 dBA noise level. Construction noise would be of short duration and restricted to normal weekday work hours. Consequently, anticipated noise levels would be insignificant.

The proposed action would result in beneficial socioeconomic impacts during construction due to the short-term increase in employment and purchase of materials, equipment, and services. The increase in the local property tax base resulting from the construction of the facility would result in a small, long-term beneficial effect. There would be no disproportionate adverse effects on minority or low-income populations.

Public and Intergovernmental Review

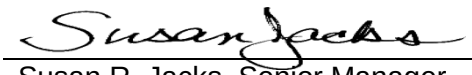
The proposed solar farm project was presented at two public meetings through the Washington County Commission in February 2017 and two public meetings in June 2017. Landowners within 300 feet of the project site were notified and invited to attend the public meetings. On February 27, 2017 the County Commission approved the resolution to rezone the land parcels owned by Aerojet and SRC for the proposed solar farm. TVA has consulted with the State Historic Preservation Office and federally recognized Native American tribes on the potential effects to historic properties.

Mitigation

SR Jonesborough would implement appropriate best management practices (BMPs), including those required by permits, during construction and operation of the facilities. Tree clearing would occur during winter months (between November 15 and March 31) to avoid impacts to roosting northern long-eared bats and Indiana bats and SR Jonesborough will mitigate for the loss of potential bat habitat in accordance with USFWS Conservation Strategy for Forest Dwelling Bats in Tennessee through a contribution to Tennessee's Imperiled Bat Conservation Fund.

Conclusion and Findings

Based upon the analyses documented in the EA, TVA concludes that its proposed action of executing the PPA with SR Jonesborough, LLC for the Jonesborough Solar Project and the subsequent construction and operation of the solar generating facility would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Date Signed