March 26, 2021

Via Electronic Mail to aapilakowski@tva.gov
Attn: Ashley Pilakowski, NEPA Specialist
Tennessee Valley Authority
400 West Summit Hill Drive, WT 11B
Knoxville, TN 37902

Dear Ms. Pilakowski:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the Tennessee Valley Authority (TVA) Draft Environmental Assessment (EA) for a proposed power purchase agreement (PPA) with a solar generating facility in Madison County, Tennessee. TVA has tentatively approved an agreement to purchase the electricity and environmental attributes generated by the proposed SR McKellar Solar Facility. The Solar Facility would be constructed and operated by SR McKellar, LLC (SR McKellar), a wholly-owned subsidiary of Silicon Ranch Corporation (SRC) and include up to approximately 70 megawatts of alternating current generating capacity. The proposed facility would interconnect to the Jackson Energy Authority (JEA) distribution network. The proposed facility would occupy approximately 432 acres of the roughly 942-acre property to be owned by SRC and leased to SR McKellar for the project.

Actions considered in detail within the Draft EA include:

- **No Action Alternative.** The No Action Alternative provides for a baseline of conditions against which the impacts of the Proposed Action Alternative can be measured. Under this alternative, TVA would not purchase power though a 15-year PPA with SR McKellar. The solar facility would not be constructed and operated by SR McKellar. Within the project site, existing conditions, i.e., natural resources, visual resources, physical resources, and socioeconomics, would remain unchanged. The identified land would not be developed into a solar facility and TVA would rely on other energy sources to meet energy supply needs and increased renewable energies as described in the 2019 IRP.

- **Proposed Action Alternative.** The Proposed Action Alternative would provide for the installation and operation of a 70 MW AC solar facility in Madison County, Tennessee and for TVA’s purchase of renewable energy from the facility under a 15-year PPA with Silicon Ranch. The proposed project would occupy approximately 432 acres on a 942-acre tract south of James Laurence Road, north and south of Denmark Jackson Road and Womack Lane in Jackson, Madison County, TN. While the design is in the process of being finalized, the conceptual plan includes monofacial solar modules.
TDEC has reviewed the Draft EA and has the following comments regarding the proposed action and its alternative:

Cultural Resources

TDEC believes the Draft EA adequately addresses potential impacts to cultural resources within the proposed project area.2

Energy Resources

TDEC is supportive of resiliency efforts, including more decentralized power supply, in the state. In the event of an energy emergency, the site may provide an emergency source of electricity for critical infrastructure and facilities (e.g., hospitals, shelters, food banks) in the region.

TDEC recommends that consideration be given to using electric-powered lawn equipment for land preparation activities as well as long term site maintenance. Electric-powered lawn equipment can be as much as fifty percent (50%) quieter than traditional gas-operated model, are zero emission, reduce petroleum-fuel purchases, and eliminates used oil waste.3 Similarly, if there is an opportunity to use all-electric portable earthmoving equipment, it would result in reduced noise, air emissions, petroleum-fuel purchases, and used oil waste. TDEC recommends TVA consider these additional details in the Final EA.

Finally, TDEC recommends that TVA consider addressing any potential Electro Magnetic Field (EMF) impacts that may result from the proposed action in the Final EA.4

Air Resources

Section 3.7.1.1 provides some air quality data for Madison County. However, according to the Environmental Protection Agency’s database, the most recent (2020) annual statistic for fine particulate matter (PM2.5) is 6.3 µg/m³ (annual weighted mean) and 16.4 µg/m³ (annual 98th percentile). These are the

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1 The project would connect to a new 34.5 kV line from the proposed substation on-site to the existing McKellar, TN 161-kV Switching Substation. The proposed connection would span approximately 0.75 miles, with a 50-foot maintained easement. Approximately 15 poles, 60-65 feet above grade, spaced 300 feet apart are proposed as part of the Proposed Action Alternative. Construction would include clearing, minor grading at the pole locations, auguring pole locations, set poles and installing hardware, and stringing the conductor and fiber optic line.
2 This is a state-level review only and cannot be substituted for a federal agency Section 106 review/response. Additionally, a court order from Chancery Court must be obtained prior to the removal of any human graves. If human remains are encountered or accidentally uncovered by earthmoving activities, all activity within the immediate area must cease. The county coroner or medical examiner, a local law enforcement agency, and the state archaeologist’s office should be notified at once (Tennessee Code Annotated 11-6-107d).
3 Lawn equipment could be charged on site with the energy generated.
4 There is increased stakeholder awareness regarding possible EMF impact and utility scale solar projects. While consensus regarding effects in general, and more specifically, their magnitude, has yet to be reached, it may be in TVA’s best interest to proactively address any concerns that Tennessee Valley customers may have.
appropriate statistics to assess the air quality with respect to the National Ambient Air Quality Standards rather than the values in the document. TDEC recommends TVA to update this information in the Final EA.

TDEC recommends that should open burning be considered for disposal of wood wastes generated from the proposed project, alternatives to open burning, including chipping, composting or grinding of wood waste, be evaluated first. If open burning is selected for wood waste disposal TVA should consider implementing a smoke management plan, not burning on air quality alert days, and coordinating burning with other agencies (local and State air pollution control agencies, forestry agencies and local fire departments). TVA should consider wind direction when burning to avoid air quality impacts to highly populated areas like Jackson, Tennessee. TDEC encourages the Final EA to include discussion relating to the management of wood wastes generated by the Proposed Action Alternative.

Construction activities at the site will likely cause emissions of fugitive dust. TDEC provides specific requirements for prevention of fugitive dust, including use, where possible, of asphalt, water or suitable chemicals to limit its creation. The discussion of fugitive dust associated with the Proposed Action Alternative should also reference TAPCR 1200-03-08; the narrative provides limited information about fugitive dust associated with this alternative. TDEC encourages TVA to include these considerations in the Final EA.

TDEC recommends that all construction equipment employed on site be well maintained and equipped with the latest emissions control equipment to reduce air pollution associated with the project’s activities and encourages TVA to consider these considerations in the Final EA.

**Solid Waste**

During the course of construction and facility operations, all materials determined to be wastes should be evaluated (e.g., waste determinations) and managed (e.g., inspections, container requirements, permitted transport, and disposal) in accordance with the Solid and Hazardous Wastes Rules and Regulations of the State (TDEC DSWM Rule 0400 Chapters 11 and 12, respectively) in addition to other applicable TVA best management practices. TDEC recommends that the Final EA include reference to applicable state regulations.

**Water Resources**

The project will disturb more than an acre of land, which will require a stormwater construction general permit (CGP) and a Stormwater Pollution Prevention Plan (SWPPP). A hydrologic determination study for the site has already been performed by a Tennessee Qualified Hydrologic Professional (TN-QHP). There are potential stream impacts associated with the project, which will also require an Aquatic Resource Alteration Permit (ARAP), as TVA notes in the submittal.

There will be considerable vegetation management around the panels using herbicides. Care should be taken to follow manufacturer’s directions and avoid herbicide application prior to predicted rainfall events or high

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3 Reference TDEC Tennessee Air Pollution Control Regulation chapter (TAPCR) 1200-03-08, [http://sos.tn.gov/effective-rules](http://sos.tn.gov/effective-rules).
winds to minimize any possibility of runoff or drift. TDEC recommends the Final EA include these considerations.

TDEC appreciates the opportunity to comment on this Draft EA. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as an indication of future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,

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