

**FINDING OF NO SIGNIFICANT IMPACT**  
**TENNESSEE VALLEY AUTHORITY**

**PURYEAR SOLAR**  
**HENRY COUNTY, TENNESSEE**

The Tennessee Valley Authority (TVA) has entered into a 20-year power purchase agreement (PPA) with SR Puryear, LLC (Puryear Solar), a wholly owned subsidiary of Silicon Ranch Corporation (SRC), to purchase the power generated by Puryear Solar (Project) in Henry County, Tennessee, subject to satisfactory completion of all applicable environmental reviews.

The proposed Project would generate up to 50-megawatt (MW) alternating current (AC) generating capacity at the Point of Interconnection and would occupy approximately 349 acres on an approximately 611-acre tract located approximately one mile east of the City of Puryear, Henry County, Tennessee. While the design is in the process of being finalized, the conceptual plan includes approximately 147,384 individual monocrystalline module photovoltaic (PV) panels.

Puryear Solar would construct a substation to step up medium-voltage power to high-voltage power with a 69-kilovolt (kV) main transformer for subsequent transfer to the Paris Board of Public Utilities (PBPU). PBPU would construct a single breaker switchyard. The substation and switchyard would be located on approximately five acres along the Project Site's southern boundary. The PBPU switchyard would transfer electricity to the PBPU's future 69-kV Eagle Creek Feeder 734 transmission line (TL) that would be constructed from Puryear Solar to the Eagle Creek substation approximately nine miles east of the Project Site along SR 140. Construction of the 69-kV feeder TL is not part of the Puryear Solar Project as it is being pursued by PBPU regardless of the execution of the proposed Project.

In June 2019, TVA completed an Integrated Resource Plan (IRP) and associated Environmental Impact Statement. 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 while reducing environmental impacts. The 2019 IRP anticipates growth of solar in all scenarios analyzed, with most scenarios anticipating 5,000-8,000 MW and one anticipating up to 14,000 MW. TVA began the process of updating its IRP and will issue a new plan in 2024. With the demand for solar energy increasing, TVA has an expansion target of 10,000 MW of solar by 2035.

**Alternatives**

The Environmental Assessment (EA) evaluates two alternatives: the No Action Alternative and the Proposed Action Alternative (Proposed Action). Under the No Action Alternative, TVA would not purchase power through a 20-year PPA with Puryear Solar. Existing conditions (e.g., land use, natural resources, visual resources, physical resources, and socioeconomics) at the Project Site would not change as a result of selecting the No Action Alternative and agricultural activities would likely continue. TVA would continue to rely on other sources of generation described in the 2019 IRP to ensure an adequate energy supply and to meet its goals for increased renewable and low greenhouse gas (GHG)-emitting generation.

Under the Proposed Action, Puryear Solar would construct and operate the proposed 50 MW AC solar facility and PBPU would be responsible for the connection to the TVA power system. The Proposed Action includes installing the solar panels on single-axis tracker structures supported by steel pilings and connecting them with underground cables.

The arrays would contain approximately 79 0.8 MW power inverters and approximately 1,571 13-string, 265 10-string, and 213 7-string trackers. Buried electrical cables would connect the rows of PV panels to 15 4.2 MVA transformers and one 3.2 MVA transformer onsite. Site preparation would involve surveying and staking, removing tall vegetation and small trees, light grading and clearing, installing the security fence, implementing erosion control Best Management Practices (BMPs), and preparing construction laydown areas.

Approximately 100 to 150 workers would be employed during construction of the solar facility, lasting approximately 8-12 months. Work would generally occur six (6) days a week (Monday through Saturday) from 7:00 am to 5:00 pm. Additional hours could be necessary to make up schedule deficiencies or to complete critical construction activities. Once construction is complete, staff presence at the site would be minimal.

### **Operations and Decommissioning**

During operation of the solar facility, no major physical disturbance would occur. Routine maintenance would include periodic motor replacement, inverter air filter replacement, fence repair, vegetation control, and periodic array inspection, repairs, and maintenance. Traditional trimming and mowing would be performed periodically (about four mowing events per year) to maintain the vegetation at a height ranging from 6 inches to 2 feet. Selective use of herbicides may also be employed around structures to control weeds. Products would be used per state and federal regulations. To minimize any possibility of runoff or drift when using herbicides, care would be taken to follow manufacturer's directions and avoid herbicide application prior to predicted rainfall events or high winds.

Following the expiration of the 20-year PPA with TVA, Puryear Solar would reassess the site operation and determine whether to cease operation or attempt to enter a new PPA or another arrangement. If TVA or another entity is willing to enter into such an agreement, the Project could continue operating. If no commercial arrangement is possible, and if TVA opts not to exercise its option for purchase at the end of the 20-year term, the facilities would be decommissioned and dismantled, and the Project Site restored.

In general, most decommissioned equipment and materials would be recycled. Key components, including the Series 6 or 7 solar modules to be used by Puryear Solar, realize high recycling rates at the component supplier's state-of-the-art recycling facilities. With respect to the Series 6 or 7 solar modules, up to 90 percent of the semiconductor material can be reused in new modules and 90 percent of the glass can be reused in new glass products. Materials that cannot be recycled would be disposed of at approved facilities in accordance with local, state, and federal laws and regulations.

### **Impacts Assessment**

The Puryear Solar EA describes the potential impacts and mitigation of the Proposed Action in detail. Overall, the work performed may have some minor, temporary impacts during construction

but would not, with one minor exception, result in any long-term or permanent adverse impacts to any of the resources described below or to anyone living near the Project Site. It is possible that up to 0.2 acres of permanent wetland impact may occur if the project design cannot be modified to avoid these impacts. If impacts are proposed, all required permits would be obtained, and any required mitigation would be implemented.

### ***Land Use***

Implementing the Proposed Action Alternative would result in minor direct adverse impacts to the Project Site. Land use on the Project Site would change from agricultural to industrial. As a relatively small portion of a very large land use category in the vicinity would be lost, the Proposed Action would have an overall minor adverse impact.

### ***Geology, Soils and Prime Farmland***

During construction there would be minor direct impacts to geology resulting from placement of the steel piles that support the solar arrays. Hazards resulting from geological conditions would be minor because the Project Site is in a relatively stable geologic setting.

Minor disturbance to soils would occur during operation of the Proposed Action Alternative. The creation of new impervious surfaces, in the form of panel footings and the foundations for the inverter stations and substation, would result in a minor increase in stormwater runoff and potentially increase soil erosion. The use of BMPs such as soil erosion and sediment control measures would minimize the potential for increased soil erosion and runoff. Following construction, implementation of soil stabilization and vegetation management measures would reduce the potential for erosion impacts during site operations. While in operation, adverse impacts to soils would be offset by beneficial effects of vegetation management.

No permanent or irreversible conversion of prime farmland would occur. While agricultural production would not be possible where panels are placed on the Project Site, adhering to BMPs during construction and operation of the solar facility, including installing erosion control devices (ECDs) during stockpiling events, would preserve topsoil and limit erosion, resulting in negligible impacts to prime farmland. If the solar panels were removed at the end of the 20-year PPA, the land could be returned to agricultural production.

### ***Water Resources***

#### ***Groundwater***

Direct and indirect impacts on local aquifers and groundwater are not anticipated due to the limited ground disturbance required for initial construction, operation, maintenance, or decommissioning and closure. During construction, hazardous materials would be onsite that could potentially contaminate groundwater resources, including petroleum products for fuel and lubrication of construction equipment, hydraulic fluids, and various other chemicals commonly used for general construction. Appropriate BMPs would be followed, and a Spill Prevention, Countermeasure and Control (SPCC) Plan would be prepared to minimize the potential for leaks or spills to occur and provide countermeasures for spill response.

### *Surface Water*

Construction and operation of Puryear Solar would not impact surface waters based on the current Project layout. No panels, other above-ground structures, or interior access roads are expected to impact any state or federal jurisdictional streams or ponds or the Tennessee Department of Environment and Conservation (TDEC)-required 30-foot buffer surroundings these features. These areas would be avoided during construction to the greatest extent feasible, although minor work would be expected to occur within the buffer zones.

During construction, runoff of sediment and pollutants could temporarily impact surface water quality on the Project Site. The use of BMPs for controlling soil erosion and runoff would minimize these potential impacts to surface water. Additionally, construction of onsite stormwater detention basins would allow sediments to settle out prior to release.

### *Floodplains*

Of the proposed facilities, structures, and activities, only tree clearing and one stormwater basin would be located within the 100-year floodplain. Tree-clearing would be an agricultural use, which is considered a repetitive action in the 100-year floodplain, and therefore consistent with Executive Order 11988, Floodplain Management.

A stormwater basin would be located in the 100-year floodplain. Stormwater basins are not considered repetitive actions in the 100-year floodplain. There is no practicable alternative to locating the one stormwater basin within the floodplain because land outside the floodplain is planned for solar panels. The stormwater basin that would be in the 100-year floodplain of the unnamed tributary of the East Fork Clarks River would be designed to withstand flooding with minimum damage. If any permits are required to construct the stormwater basin in the floodplain, Puryear Solar will obtain them prior to commencing construction of the basin.

### *Wetlands*

The current layout shows potentially up to 0.2 acres of forested wetland impact (tree removal leaving roots in place) would be needed to reduce shading of the panels. However, the amount of impact may be reduced or eliminated based on additional changes to the Project layout.

Any wetland impacts would be subject to the terms and conditions of a general or individual Aquatic Resource Alteration Permit (ARAP) from TDEC pursuant to Section 401 of the Clean Water Act (CWA) and possibly a federal permit from the U.S. Army Corps of Engineers (USACE) if they claim jurisdiction over any wetlands and those wetlands are impacted by the Project. Additionally, SRC will follow CGP buffer requirements around all wetlands. With implementation of appropriate BMPs, and purchase of potentially required mitigation credits, impacts to wetlands would be insignificant during construction. The possible conversion of up to 0.2 acres of forested wetlands to emergent wetlands, while considered a permanent impact, would be considered insignificant on a watershed scale with the adherence to CWA 401/404 permitting and mitigation. While operational, there is a potential for beneficial impacts to wetlands within the Project Site due to the reduction in annual agriculture activities and applications of pesticides and fertilizer within the Project Site.

### *State and Federal Concurrence*

On March 3, 2023, TDEC released its official concurrence letter for the Project Site. TDEC concurred with the findings of the Hydrologic Determination Report, with the exception that all the ponds are jurisdictional to the state due to potential connection to groundwater. Currently, the USACE Approved Jurisdictional Determination for the Project Site is under review.

## ***Biological Resources***

### *Vegetation*

Under the proposed action, approximately 341 acres of farmland and up to 20 acres of forested land of the 611-acre Project Site would be required for development. Considering the large amount of similar vegetation types in the area, both regionally and locally, clearing the existing vegetation would be regarded as minimal and insignificant impacts. Disturbed areas would be seeded post-construction using a mixture of certified weed-free, low-growing grass seed obtained from a reputable seed dealer and in compliance with the requirements established by the local office of the Natural Resources Conservation Service (NRCS). With revegetation of native or noninvasive species, impacts would not be expected to be significant.

### *Wildlife*

Overall, direct impacts on wildlife would be minor. Wildlife present at the time of construction would be impacted, particularly when heavy machinery is used for vegetation clearing and driving piles as it would displace any wildlife currently using the area. Mobile species will be able to leave the area and will not be impacted. Direct effects to some individuals may occur if those individuals are immobile during the time of habitat removal. Upon completion of construction, the site would be revegetated using a mixture of certified weed-free, low-growing native or non-invasive grass seed. Those animals able to use early successional habitats could return to the site upon completion of the Project if they are able to access the new habitats. Approximately 235 acres of habitat is not proposed for development and would be available for wildlife use.

Of the five migratory bird species of conservation concern, only the prairie warbler was observed in the Project Site. It is also anticipated that the prothonotary warbler, chimney swift, and red-headed woodpecker could be present during the breeding season. Tree clearing would be conducted only during the winter window (October 15 – March 31); thus, implementing the Proposed Action would avoid impacts to nesting birds.

### *Threatened and Endangered Species*

Seven species listed as federally endangered, threatened, candidate, proposed, or experimental non-essential under the Endangered Species Act (ESA) have the potential to occur within the Project area in Henry County, Tennessee. These species include the monarch butterfly, a candidate species, four mammals, the gray bat (endangered), northern long-eared bat (NLEB) (endangered), Indiana bat (endangered), and tricolored bat (TCB) (proposed endangered), the whooping crane (experimental population, non-essential), and the alligator snapping turtle (proposed threatened). No federally designated critical habitats for these species are present within or adjacent to the Project action area; therefore, no adverse modification of critical habitats would occur. Of the six species discussed above, only the monarch butterfly was observed in the Project Site.

Roosting habitat for three federally protected mammals, the Indiana bat, NLEB, and the candidate TCB, is present within the Project Site. No suitable roosting habitat for gray bats is present as this species roosts in caves year-round and there are no caves on or near the Project Site. No individuals of the four species were collected during the mist-net survey conducted from May 19-22, 2023, following federal survey guidelines. Less than 20 acres of potentially suitable summer roosting habitat for Indiana bat and NLEB would be removed. Wetlands, streams, and forested areas offer suitable foraging habitat for these species and, except for a possible 0.2 acres of wetland impact, would not be impacted by constructing the Project. SRC is working to reduce this to no wetland impacts.

BMPs would be used around all streams and wetlands not proposed for impact to minimize potential impacts to bat foraging habitats. On December 19, 2023, in Section 7 consultation under the Endangered Species Act, the U.S. Fish and Wildlife Service (USFWS) concurred with TVA's determination that proposed actions "may affect but are not likely to adversely affect" the Indiana bat, NLEB, and gray bat and are not likely to jeopardize the continued existence of the TCB, whooping crane, alligator snapping turtle, and monarch butterfly.

### ***Visual Resources***

Temporary, minor direct impacts on visual resources would be anticipated during the construction phase due to increased traffic and alteration of the Project Site. In the operational phase, the panels and chain link fence surrounding the panels would be visible along the western half of the Project Site from SR 140, along both sides of Conyersville Road where it passes through the Project Site, and along most of the Project Site that borders Old Paris Murray Road. The only place where the panels would not be visible from any roads is along the eastern half of the Project Site along SR 140. Visibility is blocked by existing tree lines. The substation and switchyard would be visible from SR 140. Additionally, panels would be visible to two existing residences from their properties, and the residents would experience noticeable visual impacts.

### ***Noise***

Construction noise would cause temporary and short-term adverse impacts to the ambient sound environment near the Project Site. Nearby residents could experience elevated noise caused by construction equipment. Construction equipment typically results in a maximum noise level of 80-90 dBA, dropping to 71-81 dBA at 300 feet, and 50-60 dBA at 1,000 feet. Most construction-related noise such as delivery trucks, dump trucks, water trucks, service trucks, bulldozers, chain saws, bush hogs, and other large mowers for tree clearing would remain under 65 dBA for nearby residences due to their distance from the sound source. Additionally, most of the proposed equipment would not be operating on the site for the entire construction period or at one time but would be phased in and out based on Project progress.

Following completion of the solar facility, the ambient sound environment is anticipated to return to existing noise levels or below by eliminating some of the seasonal use of agricultural equipment. The proposed inverters would produce minimal noise for residences more than 1,000 feet from the proposed inverters. A typical inverter, such as a Power Electronics 3510kVA model, has noise levels of less than 79 dB measured at 1 meter from the back of the unit. Maintenance activities, primarily mowing, would result in noise periodically; however, this noise would be similar to existing noises near the Project Site.

### ***Air Quality and Climate Change***

Under the Proposed Action Alternative, minor impacts to air quality would occur during the construction of the solar facility. Only minimal air impacts would be expected, as construction might result in localized dust and fumes from equipment. The construction would involve using diesel-powered machinery and thereby create small amounts of airborne dust and debris. Internal combustion engines' emissions associated with diesel fuels would generate local emissions, including carbon monoxide, nitric oxide, and sulfur dioxide, during construction (an increase of GHG during construction). Also, during clearing, trees may be burned and result in a minor increase in GHG emissions. The impacts on air quality would be minimal and short-term.

The operation of the solar facility would result in negligible impacts due to maintenance activities such as facility inspections and periodic mowing. However, a minor reduction in new GHG emissions is expected as the emissions-free power generated by the solar facility would reduce the need for power that would otherwise be generated in part by fossil fuels. This reduction would result in minor beneficial impacts to air quality.

### ***Cultural Resources***

The Proposed Action Alternative would not adversely affect listed or potentially eligible National Register of Historic Places sites where the panels or substation are installed. TVA consulted with the State Historic Preservation Office (SHPO) and federally-recognized Indian tribes with an interest in the area with respect to these findings of both the archaeological and architectural surveys. TVA received concurrence from the SHPO in a letter dated September 7, 2023, that no historic properties eligible for listing in the National Register of Historic Places will be affected by implementing the Proposed Action. Should previously undiscovered cultural resources be identified during Project Site construction or operations, a Secretary of the Interior qualified archaeologist and the SHPO would be consulted before any further action is taken. None of the potentially impacted tribes objected to the Proposed Action.

### ***Natural Areas and Recreation***

Natural areas are managed areas such as National Wildlife Refuges, Natural Areas listed by TDEC, Wildlife Management Areas (WMA) listed by the Tennessee Wildlife Resource Agency, ecologically significant sites, and river segments listed in the Nationwide Rivers Inventory. Within a 5-mile radius of the Project Site, there are no natural or recreation areas. Thus, implementing the proposed action would not affect natural areas.

### ***Utilities***

Utilities include electrical service, natural gas, water supply, and communications. Electrical service to the Project Site is available from the PBPU. A service drop would be installed during construction to provide construction power. Given the low-level of electric demand during construction and operation, no changes to the PBPU distribution system would be expected, and there would be no impact to the local utility or its customers. No impacts to utilities would be anticipated as a result of the implementation of the Proposed Action.

### ***Waste Management***

During construction, operation, maintenance, and decommissioning small amounts of hazardous waste would be generated. Hazardous waste that may be generated during construction and decommissioning includes hydraulic fluids, used oil, paint and paint thinner, other petroleum-based fluids, and any materials saturated with these fluids. To the extent possible, hazardous waste would be recycled. BMPs would be implemented to minimize the potential of a spill and to instruct onsite workers on how to contain and clean up spills.

Non-hazardous solid waste including worn or broken metal and machine parts, defective or broken electrical materials, other scrap metal and plastic, broken down module boxes, empty containers, paper, glass, and other miscellaneous solid waste would be generated throughout all phases of the proposed Project. Waste would be disposed of utilizing contracted refuse collection and recycling services in accordance with local, state, and federal laws and regulations. Bulk chemicals would be stored in storage tanks or returnable delivery containers.

Overall, by implementing BMPs, minimal direct impacts from hazardous and non-hazardous waste are anticipated. Additionally, no indirect impacts from hazardous or non-hazardous waste are anticipated.

### ***Public and Occupational Health and Safety***

Puryear Solar will implement BMPs to reduce public and occupational health and safety during construction, operation, and decommissioning. Under the Proposed Action Alternative, workers on the Project Site would have an increased safety risk during construction. However, standard construction site practice includes the establishment and maintenance of health and safety plans to comply with Occupational Safety and Health Administration (OSHA) regulations. An SPCC plan would be developed and implemented to minimize the potential of a spill and to provide detailed instructions for onsite personnel on how to contain and clean up any potential spills.

The Project is not anticipated to cause electromagnetic interference levels such that there will be impacts on nearby residents. Puryear Solar intends to design, construct, and operate the electrical systems of the proposed Project using standard industry practices with sufficient setbacks to reduce or eliminate electromagnetic frequency and interference exposure to adjacent property owners.

### ***Transportation***

No long-term or permanent impacts to transportation are anticipated from the proposed Project. Traffic flow around the work site would be heaviest at the beginning of the workday, at lunch, and at the end of the workday, resulting in minor temporary impacts. The proposed solar facility would not be staffed during operation but would be inspected weekly. Maintenance would be required quarterly for equipment failures and would require minimal personnel. Therefore, the operation of the solar facility would not have a noticeable impact on local roadways.

### ***Socioeconomics***

Approximately 100-150 workers would be employed during construction, lasting approximately 8-12 months. 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, income, and population. Operation of the facility would not increase local employment as no workers would be needed for day-to-day operation of the solar facility.

Overall, socioeconomic impacts for the operation of the Project are anticipated to be positive and long-term, although small relative to the total economy of the region. Although it is too early to quantify, the Project would benefit the local tax base through the increased property taxes due to site improvements.

### ***Environmental Justice***

The results of the environmental justice (EJ) analysis indicate there may be minority and/or low-income populations living near the Project Site. Possible impacts include a change in the visual effects arising from conversion of the land from agricultural to industrial use. Any adverse visual impacts would be offset by using existing vegetation to reduce or eliminate the visibility of the panels from public and private access points and would be supplemented with fencing and planting new vegetation if necessary.

Constructing the Project does not result in a long-term increase to air pollution, the release of GHGs, noise, hazardous materials, or traffic. The Project will not result in a permanent change to the socioeconomics of the area or create undo impacts on solid waste and utilities. No recognized natural areas or recreational facilities will be impacted. The Project will result in minor impacts to surface and groundwater, biological, and cultural resources; however, these impacts are offset by buffers protecting the resources and will not have an adverse impact on minority or low-income populations.

Persons living adjacent to the Project Site, including any minority and/or low-income populations, may experience short-term impacts from an increase in traffic and noise during construction along with minor short-term direct and indirect air quality impacts resulting from localized dust and exhaust fumes from equipment during construction, but these impacts will end once construction is completed. Some minor long-term beneficial impact may result from the decreased use of pesticides and fertilizers on farmland that is converted to solar panels.

None of the impacts mentioned above rise to a level where they create a disproportionately high and adverse human health or environmental effect to anyone, including EJ populations living near the Project Site.

### ***Cumulative Impacts***

The 2022 Council on Environmental Quality's (CEQ) National Environmental Policy Act (NEPA) regulations define cumulative effects as "effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time." The desktop research did not identify any past, present, or foreseeable future local projects that could combine with the Proposed Action to cause cumulative impacts that may significantly affect the environment.

### **Public and Intergovernmental Review**

Puryear Solar announced the proposed Puryear Solar Project through various means, providing opportunity for public comment. Federal, state, and local agencies, interested federally recognized Native American Tribes, elected officials, and other stakeholders were sent notification announcing the availability of the draft EA for review and comment for a 30-day period.

During the 30-day public review and comment period of the draft EA, a total of 12 responses from the public were received. Responses to the comments are included in Appendix A of the EA.

### **Mitigation Measures**

Puryear Solar would implement the following minimization and mitigation measures in relation to potentially affected resources:

- **Geology and Soils**
  - Utilize standard BMPs, as described in A Guide for Environmental Protection and Best Management Practices for Tennessee Valley Authority Construction and Maintenance Activities – Revision 4 (TVA, 2022), to minimize erosion during construction, operation, and maintenance activities.
  - Install silt fences, sedimentation basins, and other appropriate controls as needed to minimize erosion and sedimentation.
  - Implement other soil stabilization and vegetation management to minimize soil exposure and limit soil erosion from the project site.
  - Make an effort to balance cut-and-fill quantities to alleviate the transportation of soils offsite during construction if necessary.
- **Water Resources**
  - Comply with the terms of the Stormwater Pollution Prevention Plan (SWPPP) prepared as part of the TDEC permitting process.
  - Maintain existing landscape and aquatic resource buffers.
  - Implement other routine BMPs as necessary, such as nonmechanical tree removal within surface water buffers, placement of silt fences and sediment traps along buffer edges, selective herbicide treatment to restrict application near receiving water features, and proper vehicle maintenance to reduce the potential for adverse impacts to surface water and groundwater as identified by TVA
  - Use only U.S. Environmental Protection Agency (USEPA)-registered and TVA-approved herbicides per label directions designed to restrict applications near receiving waters and prevent unacceptable aquatic impacts in areas requiring chemical treatment.
  - Design the final layout to minimize direct and indirect impacts on aquatic features.
  - Comply with the conditions of the TDEC Section 401 and USACE 404 of the CWA (33 U.S.C. § 1251 et seq.) permits and required compensatory mitigation, as applicable.
  - Protect intermittent streams by implementing Standard Stream Protection (Category A), Protection of Important Steams, Springs, and Sinkholes (Category B), or Protection of Unique Habitat (Category C) as defined by TVA (2017b).
  - Any manual tree cutting in wetlands will leave the stumps in place to preserve hydric soils.
  - Ensure construction and maintenance activities occur during dry periods as much as possible.
  - If hauled offsite for disposal when the facility is decommissioned and dismantled, excavated material and debris would be spoiled outside 100-year floodways.

- The solar panels would be elevated at least one foot above the 100-year flood elevation.
- The stormwater basin that would be in the 100-year floodplain of the unnamed tributary of the East Fork Clarks River and serving Area 4 would be designed to withstand flooding with minimum damage.
- Ensure construction or improvement of access roads within 100-year floodplains would be done in such a manner that upstream flood elevations would not be increased by more than one foot.
- Biological Resources
  - Revegetate with native and/or noninvasive vegetation to reintroduce habitat, reduce erosion, and limit the spread of invasive species consistent with EO 13112 (Invasive Species) for revegetating with noninvasive plant species as defined by TVA (2017a).
  - Follow USFWS recommendations regarding biological resources, including pollinator species.
  - Use downward facing and timer- and/or motion-activated lighting to limit attracting wildlife, particularly migratory birds and bats.
  - Instruct personnel on wildlife resource protection measures, including (1) applicable federal and state laws such as those that prohibit animal disturbance, collection, or removal, (2) the importance of protecting wildlife resources, and (3) avoiding vegetation disturbance in undisturbed and buffer areas.
  - Conduct tree clearing only during the winter window (October 15 – March 31) when federally protected bats are not present.
- Visual Resources
  - If buffers are required by the county or state, Puryear Solar would install landscape buffers along the Project Site boundary to minimize visual impacts from the proposed solar facility.
  - Use downward-facing and timer- and/or motion-activated lighting to minimize impacts to surrounding areas.
- Noise
  - Limit construction activities primarily to daytime hours and ensure that heavy equipment, machinery and vehicles utilized at the Project Site meet all federal, state, and local noise requirements.
- Air Quality and GHG Emissions
  - Comply with the conditions of the Tennessee Department of Agriculture, Division of Forestry burn permits if burning of vegetative debris is required and use BMPs such as periodic watering, covering open-body trucks, and establishing a speed limit to mitigate fugitive dust.
- Waste Management
  - Develop and implement various plans and programs to ensure the safe handling, storage, and use of hazardous materials.
- Public and Occupational Health and Safety
  - Implement BMPs for site safety management to minimize potential risks to workers.
- Transportation

- Implement staggered work shifts during daylight hours to manage traffic flow near the Project Site if needed.

### Conclusions and Findings

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



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Dawn Booker  
Senior Manager, NEPA Compliance  
Environment & Sustainability

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Date Signed