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Sierra Club Tehipite Chapter Scoping Comments on Darden Clean Energy Project

Additional submitted attachment is included below.

Sent via the CEC e-Comment website

e-Comment Title: Sierra Club Tehipite Chapter Scoping Comments on Darden Clean Energy Project

e-Comment Subjects: Air Quality, Alternatives, Biological Resources, Facility Design, Greenhouse Gases, Public Health

Ann Crisp CEC Project Manager Darden Clean Energy Project

Dear Ms. Crisp:

Thank you for the opportunity to provide scoping comments on the proposed Darden Clean Energy Project (Project). Sierra Club is a national nonprofit organization, dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. Scoping comments included in this letter are submitted by Sierra Club on behalf of its 1.5 million members and supporters in the U.S., including 260,000 members and supporters in California.

Sierra Club supports the transition to renewable energy and protection of natural ecosystems, biodiversity, and human communities. Encouraging the rapid development of well-sited, appropriately designed and managed renewable energy will allow us to replace fossil fuels with renewable energy while ensuring we meet Sierra Club's and California's goal of protecting 30% of our lands and waters by 2030. With proper siting and design to avoid, minimize or mitigate impacts to the biological resources, air quality, public health, and the environment, we can successfully build out the renewable energy system that is an essential part of the change needed to avert the existential crisis of climate change.

Sierra Club prefers siting renewable energy facilities on structures or lands which have already been converted from their natural state and remain impacted, disturbed, or degraded by human activities. The proposed Darden Clean Energy Project sited on salt-affected lands in Fresno County is consistent with this preference, and we look forward to reviewing the DRAFT Environmental Impact Report (DEIR) for the proposed Project.

Project description

The Project consists of a 1,150 megawatt (MW) solar photovoltaic (PV) facility, an up to 4,600 megawatt-hour battery energy storage system (BESS), a 34.5-500 kilovolt (kV) grid step-up substation, a 10- to 15-mile 500 kV generation intertie (gen-tie) line, and a 500 kV utility switching station. The Project will be located on 9,500 acres of private land in Fresno County. The Project includes the construction, operation and decommissioning, the effects of which will be analyzed under the provisions of CEQA. An October 3, 2024 notice clarified that the project developer removed a planned Green Hydrogen Generating component from the Project.

Comments

Sierra Club submits the following scoping comments for the Project:

Greenhouse Gas Emissions and Air Quality

The projected net greenhouse gas (GHG) and Criteria Pollutant emissions of the entire Project, ¹ including construction, operations, and decommissioning, is questionable and requires more comprehensive and updated analysis. Some assumptions are not well founded, such as use of 2021 Total System Electric Generation data as a basis to calculate annual "displaced emissions" for the 35-year projected life of the Project. This basis be updated to use the most recent report (2023 as of this writing), and the annual basis should be updated to reflect changes to California's Power Mix as required by SB 32 and AB 1279. Use of 2021 data for each year of the Project's expected 35-year useful life is flawed since it assumes no progress in meeting California's SB 32 and AB 1279 goals.

Further, the assumed "displaced emissions" should account for expected solar array power output degradation over the life of the project, expected losses due to BESS inefficiencies, losses expected in transformation and gen-tie transmission, and other parasitic energy use on site. Determination of Project emissions should also include and account for lifecycle or embodied emissions in the approximate 3,100,000 solar panels and 452,000 panel racking piles, other support structures, inverter-transformer stations, and other electrical system components as well as projected emissions from recycling or disposal of components and materials following decommissioning.

The projected GHG and Criteria Pollutant emissions should be updated and more fully and clearly analyzed for the significance of direct, indirect and cumulative impacts to air quality, public health, and the environment.

Alternatives to the Project components or methods

Sierra Club appreciates Mitigation Measure AQ-1, which is Voluntary Emissions Reduction Agreement to fund programs that reduce NOx emissions or incorporate electric equipment into the Project's offroad equipment fleet, primarily during site preparation and construction. Similar electric equipment substitutions for fossil fuel powered equipment should be considered and analyzed for direct, indirect and cumulative impacts to air quality, public health, and the environment during the 35-year operational phase of the Project. This should include all light-duty and utility vehicles employed at the site, stationary equipment such as diesel generators or fire pumps, and equipment used by routinely employed contract service providers.

Sensitive wildlife habitat/linkages

Based on the site map of the Project, it appears well sited and that it is unlikely there will be significant overlap with the high biodiversity conservation value areas identified in the Western San Joaquin Valley Least Conflict Solar Assessment (The Nature Conservancy, August 2013). Although that assessment is not conclusive, it is a starting point for analyzing and avoiding the potential for conflicts with sensitive habitats and wildlife linkages.

¹See applicant's Appendix N Air Quality and Greenhouse Gas Emissions Study (Docket 253031-1, 11/7/2023) Section 3 Methodology and Significance Criteria, Section 4 Impact Analysis, and Appendix N-2 Calculations (pdf file page 201).

"Lake effect" Impacts & Mitigations

In addition to the above, the potential for the Project to produce a solar lake effect,² which would attract aquatic birds and contribute to avian mortality, should be analyzed. It is critical that this type of foreseeable impact be mitigated by project design and other measures.

Vegetation Management

Sierra Club appreciates that following construction, the Project will implement a Vegetation Management Plan (Plan) that results in restoration of the Project site to a mix of native and naturalized grassland and forb species which will provide a consistent source of foraging habitat for resident and transient species. The Plan, included as Mitigation Measure B-10, identifies possible vegetation management and weed control regimes including grazing, mechanical, and chemical. The Plan should be analyzed to identify the vegetation management and weed control regimes that are least impactful to resident or transient threatened or endangered species, biological resources, air quality, public health, and the environment.

Water Impacts

Climate change is affecting rainfall across the country. The Project includes 16 separate stormwater basins designed for 100-year storm events. Trends for the intensity of storms in California's Central Valley, including storm duration and frequency, should be investigated to determine if the proposed drainage basins are appropriately sized for the 35-year life of the Project. Analysis should include risk of surface erosion as well as the benefit of increased groundwater recharge from the basins.

Sierra Club hopes the scoping comments included in this letter are helpful to CEC in preparing a DEIR for the Project which includes a full and clear explication of the various potential Project impacts, an adequate range of alternatives, and an accurate impact analysis for avian mortality and wildlife connectivity, as well as special status species. We look forward to reviewing and commenting on the Project DEIR when it is available.

Sincerely,

Ron Martin, Conservation Chair Sierra Club Tehipite Chapter

See generally Robert Diehl et al., "Investigating the "Lake Effect" Influence on Avian Behavior From California's Utility-Scale Photovoltaic Solar Facilities," California Energy Commission Publication Number CEC-500-2024-055 (June 2024), available at https://www.energy.ca.gov/publications/2024/investigating-lake-effect-influence-avian-behavior-californias-utility-scale.