DOCKETED	
Docket Number:	24-OPT-03
Project Title:	Soda Mountain Solar
TN #:	257924
Document Title:	Section 3-6 Energy
Description:	This Section evaluates the direct, indirect and cumulative impacts the Project may have on energy resources and identifies any required Applicant-Proposed Measures (APM) and any required Mitigation Measures.
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Submission Date:	7/22/2024 5:19:38 PM
Docketed Date:	7/23/2024

3.6 ENERGY

This section evaluates the environmental impacts related to energy that may result directly or indirectly from the project. This section includes a description of applicable plans, policies, and regulations; presents the environmental setting with respect to energy consumption and generation for the project; identifies the criteria used for determining the significance of energy impacts; and lists applicant-proposed measures (APMs) that would be incorporated into the project to avoid or substantially lessen potentially significant impacts to the extent feasible. The analysis of energy includes evaluating the project's use of energy during construction, operation, and future decommissioning, as well as evaluating the project's consistency with federal, state, or local plans for renewable energy and energy efficiency.

The section is based on a review of existing resources, technical data, and applicable laws, regulations, plans, and policies, as well as the following technical report prepared for the project:

- *Air Quality and Greenhouse Gas Technical Report, Soda Mountain Solar Project* prepared by SWCA Environmental Consultants (SWCA) (Appendix C).

3.6.1 Regulatory Setting

3.6.1.1 Federal

DESERT RENEWABLE ENERGY CONSERVATION PLAN

The Desert Renewable Energy Conservation Plan (DRECP) is a landscape-scale renewable energy and conservation planning effort covering more than 22 million acres in the California desert. The project site is within the California Desert Conservation Area (CDCA), which is amended by the Bureau of Land Management (BLM) DRECP Land Use Plan Amendment (BLM 2016). The project site is within an area designated as a Development Focus Area (DFA). DFAs are locations where renewable energy generation is an allowable use, incentivized, and could be streamlined for approval under the DRECP.

FEDERAL RENEWABLE ENERGY MANDATES

- **Executive Order 13783** (March 28, 2017) promoted "clean and safe development of our Nation's vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation."
- **Executive Order 13212** (May 18, 2001) mandated that "agencies act expediently and in a manner consistent with applicable laws to increase the production and transmission of energy in a safe and environmentally sound manner."
- **Executive Order 13807** (August 15, 2017) and Secretary's Order 3355 (August 31, 2017) established policies to prioritize infrastructure projects and streamline the environmental review process.
- **Energy Policy Act of 2005, Section 211** established a goal for the Department of the Interior to approve non-hydropower renewable energy projects on public lands with at least 10,000 megawatts (MW) of capacity by 2015. The BLM has now authorized more than 17,000 MW of non-hydropower renewable energy projects and continues to prioritize renewable energy development on public lands.

3.6.1.2 State

ASSEMBLY BILL 32

Assembly Bill 32, also known as the California Global Warming Solutions Act of 2006, requires a reduction of greenhouse gas emissions to 1990 levels by 2020. The California Air Resources Board is required to adopt regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions. Assembly Bill 32 is the first program in the United States to take a long-term approach to address climate change.

ENERGY ACTION PLAN AND LOADING ORDER

California has mandated and implemented aggressive energy-use reduction programs for electricity and other resources. In 2003, California's first Energy Action Plan established a high-level, coherent approach to meeting California's electricity and natural gas needs and set forth the "loading order" to address California's future energy needs. The "loading order" established that the state, in meeting its energy needs, would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply. Since that time, the California Public Utilities Commission and California Energy Commission have overseen the plans, policies, and programs for prioritizing the preferred resources, including energy efficiency and renewable energy.

STATE OF CALIFORNIA RENEWABLE ENERGY MANDATES

Renewables Portfolio Standard (RPS) Senate Bill (SB) 1078, passed in September 2002, set the RPS of 20% total renewables generation by 2020.

- **SB 107**, passed in September 2006, accelerated achievement of the 20% RPS to 2010.
- **SB X1-2**, signed in April 2011, raised the RPS goal to 33% in 2020.
- **SB 350**, signed in 2015, increased the RPS goal to 50% in 2030.
- **SB 100**, signed into law in September 2018, revised the RPS goal to 60% by 2030 and set a long-term target of 100% carbon-free energy by December 31, 2045.

3.6.1.3 Local

The project is located on federally owned land managed by the BLM. While it is not subject to County of San Bernardino land use plans and ordinances, local plans were reviewed for informational purposes.

SAN BERNARDINO COUNTYWIDE PLAN

The San Bernardino Countywide Plan (San Bernardino County 2024a), adopted by the Board of Supervisors in 2020, updates and expands the County's General Plan by addressing the physical, social, and economic issues facing the unincorporated portions of the county. The Countywide Plan consists of the Policy Plan, the Business Plan, and a communities plan. The Policy Plan, based on the former General Plan, consists of 11 elements: Land Use, Housing, Infrastructure and Utilities, Transportation and Mobility, Natural Resources, Renewable Energy and Conservation, Cultural Resources, Hazards, Personal and Property Protection, Economic Development, and Health and Wellness. The Business Plan consists of a policy-based governance element along with an implementation plan. The communities plan consists of 35 Community Action Guides that provide a framework for communities to create future character and independent identity through community actions.

The following policies in the Natural Resources, Hazards, and Renewable Energy and Conservation elements of the Countywide Plan are relevant to this analysis (San Bernardino County 2024b).

- **Policy NR-1.8 Construction and operations**. We invest in County facilities and fleet vehicles to improve energy efficiency and reduce emissions. We encourage County contractors and other builders and developers to use low-emission construction vehicles and equipment to improve air quality and reduce emissions.
- **Policy NR-1.9 Building design and upgrades.** We use the [California Green Building Standards Code] CALGreen Code to meet energy efficiency standards for new buildings and encourage the upgrading of existing buildings to incorporate design elements, building materials, and fixtures that improve environmental sustainability and reduce emissions.
- **Policy HZ-1.11 Energy efficiency retrofits**. We encourage owners of existing residential and commercial properties to retrofit the walls, doors, windows, ceilings, roofs, ductwork, and other elements of their building envelopes in order to improve energy efficiency and better protect occupants from extreme temperatures.
- **Policy RE-4.10** Prohibit utility-oriented RE project development on sites that would create adverse impacts on the quality of life or economic development opportunities in existing unincorporated communities. Any exceptions or revisions to the following policy direction would require approval by the Board of Supervisors.
    - **RE-4.10.1** Prohibit development of utility-oriented RE projects in the Rural Living land use districts throughout the County.
    - **RE-4.10.2** Prohibit development of utility-oriented RE projects within the boundaries of existing community plans, which at the time of adoption of this Element are the Bloomington, Muscoy, Bear Valley, Crest Forest, Hilltop, Lake Arrowhead, Lytle Creek, Oak Glen, Homestead Valley, Joshua Tree, Lucerne Valley, Morongo Valley, Oak Hills, and Phelan/Pinon Hills Community Plans.
    - **RE-4.10.3** Establish exclusion areas in the Development Code regulations for renewable energy development, beginning with the prohibitions in Policies 4.10.1 and 4.10.2 and provide for additional exclusion areas, such as new community plan areas, to be designated by amendment to the Development Code.
- **Policy RE-5.2** Utility-oriented RE generation projects on private land in the unincorporated County will be limited to the site-types below, in addition to meeting criteria established herein and in the Development Code:
    i. Private lands adjacent to the federal Development Focus Areas (DFAs) supported by the Board of Supervisors that meet siting criteria and development standards.
    ii. Waste disposal sites
    iii. Mining sites (operating and reclaimed)
    iv. Fallow, degraded and unviable agricultural lands
    v. Airports (existing and abandoned or adaptively re-used)
    vi. Brownfields
    vii. California Department of Toxic Substance Control Cleanup Program sites
    viii. Resource Conservation and Recovery Act sites
    ix. Sites within or adjacent to electric transmission and utility distribution corridors
    x. Existing energy generation sites

xi. Industrial zones proven to not conflict with economic development needs

xii. Other sites proven by a detailed suitability analysis to reflect the significantly-disturbed nature or conditions of those listed above

- **Policy RE-5.9** Collaborate with utilities, the California Energy Commission (CEC) and the Bureau of Land Management (BLM) to plan for RE generation facilities to be located on public lands apart from existing unincorporated communities.

3.6.2 Environmental Setting

The proposed project would develop renewable energy resources to provide a total of 300 MW of generating capacity and up to 300 MW of battery storage. As calculated in Section 3.8, Greenhouse Gas Emissions, the project would produce overall about 1.2 million MW-hours each year for end-use by California's customers (Appendix A). The power produced by the project would be conveyed to the regional electrical grid through an interconnection with the existing Marketplace-Adelanto 500-kilovolt (kV) transmission line operated by the Los Angeles Department of Water and Power (LADWP). The project site is within the BLM's California Desert District (within the jurisdiction of the Barstow Field Office), the planning boundary of the CDCA Plan (BLM 1999), and the DRECP. The DRECP allows for the development of solar energy generation and ancillary facilities on public lands in this area under the CDCA Plan.

3.6.3 Impact Analysis

The project's potential impacts to energy consumption are evaluated in this section. This section includes a description of the methodology of the impact analysis, criteria for determining the significance of the project's impacts and cumulative impacts, and APMs to reduce potentially significant impacts.

3.6.3.1 Methodology

Construction, operation, and decommissioning activities would involve the use of energy-consuming equipment and processes. This analysis presents a qualitative discussion of the project's energy use for all phases and components based on the quantitative analysis presented in Section 3.8, Greenhouse Gas Emissions. As set forth in the State California Environmental Quality Act (CEQA) Guidelines, Appendix F, Energy Conservation, the goal of conserving energy implies the wise and efficient use of energy, including

- decreasing overall per capita energy consumption;
- decreasing reliance on fossil fuels, such as coal, natural gas, and oil; and
- increasing reliance on renewable energy sources.

Lead agency actions that are consistent with these goals would not be likely to cause an energy-related impact. The energy impact analysis emphasizes avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy resources. It also considers whether a project would result in a potentially significant environmental impact due to inefficient, wasteful, and unnecessary consumption of energy. Examples of energy conservation measures that may be relevant to addressing energy are provided in Appendix F, Energy Conservation, within the State CEQA Guidelines.

3.6.3.2 Thresholds of Significance

The determinations of significance of project energy impacts are based on applicable policies, regulations, goals, and guidelines defined in the State CEQA Guidelines, Appendix G. Specifically, the project would be considered to have a significant effect on energy if it would

1. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, or
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Each of these thresholds is discussed under Section 3.6.3.4, Impact Assessment.

3.6.3.3 Applicant-Proposed Measures

The applicant has identified and committed to implement APMs as part of the proposed project to avoid or substantially lessen potentially significant impacts to energy, to the extent feasible. Please refer to Section 3.3, Air Quality, for a list of the relevant APMs.

3.6.3.4 Impact Assessment

Impact EN-1: Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? (Less than significant)

CONSTRUCTION

Construction is expected to occur from 2025 through 2026 (approximately 18 months). During construction, motorized equipment and vehicles would consume energy resources in the form of fossil fuels (i.e., diesel fuel and gasoline). Additionally, construction would require the manufacture and delivery of new equipment and materials, which would also require energy use. An estimate of the energy that would be used is presented in Section 3.8, Greenhouse Gas Emissions. Energy used during construction of the project would be reduced by best management practices and APMs that would reduce construction equipment activity to levels that are necessary and not wasteful. Examples of APMs incorporated into the project that would reduce wasteful, inefficient, or unnecessary consumption of energy resources include APM AIR-9, which would require use of modern equipment or vehicles, and Tier 4 California Emission Standards for Off-Road Compression-Ignition Engines (where feasible), which would reduce energy use. APM AIR-9 would also require equipment to be properly maintained and would limit construction equipment idling.

Although construction of the project would require the temporary use of energy resources, the project would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, with incorporation of APMs as part of project construction, impacts would be **less than significant**.

OPERATION AND MAINTENANCE

Operational needs at the site include monitoring and optimizing the power generated by the solar arrays and interconnection with the transmission lines, operating the Supervisory Control and Data Acquisition (SCADA) system, troubleshooting the collector lines and repairing damaged cables, replacing photovoltaic panels, and conducting panel-washing activities periodically through the year. Additional maintenance would be required for the administrative buildings, fencing and signage, roadways, and other

ancillary facilities at the site. The project substation would be uncrewed during operation; however, a workforce of approximately 25 to 40 personnel would visit the substation as needed for maintenance, equipment operation, and/or security. Operation and maintenance would result in minimal energy use due to the small workforce needed and the limited number of vehicles required to commute to the site and transport materials. The project would generate renewable energy, reducing the use of fossil fuels for electrical generation by conventional power plants. Although the project would require the use of some energy for the battery storage system or other uses, the energy generated would be many times greater than the amount used. Therefore, operation of the project would result in a **less-than-significant impact** with respect to the inefficient consumption of energy.

Future decommissioning impacts are anticipated to be similar to the construction impacts and would also use energy; however, the types and amount of energy that would be used in 30 years is uncertain. Mitigation and existing regulations at that time would ensure that the project would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources.

Impact EN-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (No Impact)

The project would provide a total of 300 MW of renewable energy–generating capacity and would annually produce approximately 694,010 MW-hours as estimated by the AVoided Emissions and geneRation Tool (AVERT) (SWCA 2024; see Appendix C). AVERT also uses the annual U.S. national weighted average carbon dioxide (CO_2) marginal emission rate to convert reductions of kilowatt-hours into avoided units of CO_2 emissions. For a 300-MW solar facility, AVERT calculates that 337,010 tons (305,730 metric tons) per year would be avoided by placing the project into operation. Electricity from the project would be used to serve the needs of California customers and would facilitate compliance with California's RPS. The project would assist the state in achieving its energy objectives under SBs 100 and 350 and greenhouse gas emissions–reduction goals under Assembly Bill 32. The project would advance the goals of both the state and County guidelines to reduce use of fossil fuels and increase the availability of electricity from solar energy, which is eligible for compliance with the RPS. The project would be consistent with the County wide Plan, which recognizes renewable energy development and guidance (San Bernardino County 2024).

The project site is within the BLM's California Desert District (within the jurisdiction of the Barstow Field Office), the planning boundary of the CDCA Plan, and the DRECP. The project would be consistent with federal goals for the construction of renewable energy infrastructure and generation of renewable energy and would make the best use of public lands to generate, store, and transmit affordable renewable solar electricity for distribution to the state. Therefore, the project would directly support federal, state, and local plans for renewable energy development. Accordingly, the project would not conflict with or obstruct a state or local plan for renewable energy and will have **no impact**.

3.6.4 Mitigation Measures

No mitigation is required.

3.6.5 Cumulative Impacts

Impact C-EN-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to energy? (Less than Significant)

The geographic scope of the cumulative analysis for energy consumption would be San Bernardino County, which includes the cumulative projects identified in Section 3.0 Environmental Analysis. This geographic area was selected because all cumulative projects have the potential to use energy resources temporarily or permanently or have the potential to conflict with plans and policies related to increasing renewable energy and energy efficiency.

As discussed above, construction of the project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources (Impact EN-1). Energy use during construction would be reduced by best management practices and APMs (including APM AIR-9), which would minimize construction equipment activity impacts and limit the idling of equipment. The limited use of fossil fuels by operational worker commutes and use of vehicles and equipment during maintenance is not considered to be wasteful, inefficient, or unnecessary. Operation of the project would increase the use of renewable energy, thus reducing the use of fossil fuels for electrical generation by conventional power plants. Most of the cumulative projects identified in Section 3.0 Environmental Impacts Analysis are renewable energy facilities; the remainder are energy infrastructure, such as a storage project or transmission lines and substations.

Although construction activities associated with cumulative projects would require the use of fossil fuels, it is expected that each project would initiate best management practices and comply with applicable policies and regulations as part of project approval to reduce wasteful, inefficient, or unnecessary use of energy resources. Most of the cumulative projects would also contribute renewable energy to the California electrical utility system, reducing the use of fossil fuels. Accordingly, the project's incremental contribution to the cumulative energy impacts caused by other past, present, and probable future projects would not be cumulatively considerable or significant, and most of the projects would have a beneficial cumulative contribution related to directly supporting federal, state, and local plans for renewable energy development. Therefore, implementation of the project **would not result** in cumulatively considerable impacts relative to energy.

3.6.6 References Cited

Bureau of Land Management (BLM). 1999. The California Desert Conservation Area Plan 1980, as amended. Available at https://eplanning.blm.gov/public_projects/lup/66949/82080/96344/CDCA_Plan.pdf. Accessed June 2024.

———. 2016. *Desert Renewable Energy Conservation Plan, Land Use Plan Amendment to the California Desert Conservation Area Plan, Bishop Resource Management Plan, and Bakersfield Resource Management Plan*. Available at: https://eplanning.blm.gov/public_projects/lup/66459/133474/163144/DRECP_BLM_LUPA.pdf. Accessed January 2024.

San Bernardino County. 2024a. Countywide Plan. Available at: https://countywideplan.com/. Accessed June 2024.

———. 2024b. About the Policy Plan. Available at: https://countywideplan.com/policy-plan/. Accessed June 2024.

SWCA Environmental Consultants (SWCA). 2024. *Air Quality and Greenhouse Gas Technical Report, Soda Mountain Solar Project*. Pasadena, California: SWCA Environmental Consultants.