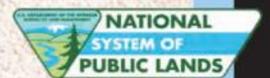


**Draft  
Environmental Impact Statement and  
California Desert Conservation Area Plan Amendment  
for the Proposed First Solar Desert Sunlight Solar Farm Project**

**Riverside County, California  
August 2010**

**BLM Case File Number CACA #48649  
Volume I**

**Bureau of Land Management  
Palm Springs Office**



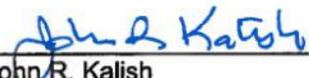
United States Department of the Interior  
Bureau of Land Management

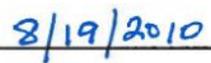
**Draft Environmental Impact Statement and  
Draft Plan Amendment to the California Desert  
Conservation Area Plan  
for the  
Proposed Desert Sunlight Solar Farm Project**

For the

**Palm Springs – South Coast Field Office**  
Palm Springs, California

**August 2010**

  
\_\_\_\_\_  
John R. Kalish  
Field Manager

  
\_\_\_\_\_  
Date

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Publication Index #: BLM/CA/ES-2010-014+1793

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## DRAFT ENVIRONMENTAL IMPACT STATEMENT

**Lead Agency:** US Bureau of Land Management

**Cooperating Agencies:** US Department of Energy, California Public Utilities Commission

**Title:** First Solar Desert Sunlight Solar Farm Project, Riverside County, California

**Contact:** Ms. Allison Shaffer, BLM, Palm Springs South Coast Field Office, 1201 Bird Center Drive, Palm Springs, CA 92264, (760) 833-7100

**Web Site:** <http://www.blm.gov/ca/st/en/fo/palmsprings.html>

**Comment Due Date:** November 25, 2010

**Abstract:** This Environmental Impact Statement addresses the US Bureau of Land Management's proposal to issue a right-of-way grant to Desert Sunlight Holdings, LLC, for the construction, operation, maintenance, and decommissioning of a utility-scale 550-megawatt photovoltaic solar energy facility, transmission line, and substation on public lands in Riverside County, California. Southern California Edison would construct and operate the substation.

The Environmental Impact Statement analyzes six alternatives: (1) No Action, in which the Applicant's application would be denied and current management of the site would be maintained; (2) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site suitable for solar development; (3) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site unsuitable for solar development; (4) BLM would grant the Applicant a right-of-way (ROW) for the project as proposed; (5) BLM would grant the Applicant a ROW for a modified project design; and (6) BLM would grant the Applicant a ROW for a smaller project. Alternatives 4, 5, and 6 include an amendment to the CDCA Plan as part of the Proposed Action and that amendment would find the project area as suitable for solar development.

# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Palm Springs South Coast Field Office

201 Bird Center Drive

Palm Springs, CA 92262

<http://www.blm.gov/ca/palmsprings/>

In reply refer to:  
CACA 048649

August 27, 2010

Dear Reader:

I am pleased to announce the availability of the Draft Environmental Impact Statement (DEIS) and Draft Plan Amendment to the California Desert Conservation Area (CDCA) Plan, 1980, as Amended, for the Desert Sunlight Solar Farm (DSSF) Project. Desert Sunlight Holdings, LLC, the Applicant, is proposing to develop a 550-megawatt photovoltaic Solar Farm in Riverside County. The Applicant also proposes to facilitate the construction and operation of the Red Bluff Substation in cooperation with Southern California Edison (SCE) in order to provide renewable electric power to California's existing transmission grid.

The enclosed DEIS analyzes six alternatives: (1) No Action, in which the Applicant's application would be denied and current management of the site would be maintained; (2) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site suitable for solar development; (3) the Applicant's application would be denied and the CDCA Plan would be amended to declare the site unsuitable for solar development; (4) BLM would grant the Applicant a right-of-way (ROW) for their project as proposed; (5) BLM would grant the Applicant a ROW for a modified project design; and (6) BLM would grant the Applicant a ROW for a smaller project. Alternatives 4, 5, and 6 include an amendment to the CDCA Plan as part of the Proposed Action and that amendment would find the project area as suitable for solar development.

The DEIS has been prepared in accordance with the National Environmental Policy Act (NEPA) and the Federal Land Policy and Management Act (FLPMA), which establishes the land management authority of the Bureau of Land Management (BLM) and provides guidance for how public lands are to be managed. In addition, because the California Public Utilities Commission (CPUC) has discretionary authority to issue the Permit to Construct (PTC) for the proposed SCE substation at Red Bluff, and CPUC is a cooperating agency with BLM in the preparation of the DEIS, this document has been prepared in accordance with the California Environmental Quality Act (CEQA). CPUC intends to use this DEIS to provide environmental review required for its consideration of SCE's PTC application under CEQA. The document has been sent to members of the public who requested a copy and to pertinent local, state, tribal, and federal government entities.

The DEIS will be circulated for 90-day public comment period. All comments must be postmarked no later than 90 days from the date the Notice of Availability for the DEIS is published in the *Federal Register* by the Environmental Protection Agency. Comments may be

sent to Allison Shaffer, Project Manager, by mail: 1201 Bird Center Drive, Palm Springs, CA, 92264; phone: (760) 833-7100; or email [CAPSSolarFirstSolarDesertSunlight@blm.gov](mailto:CAPSSolarFirstSolarDesertSunlight@blm.gov).

A public meeting will be held in Palm Springs, California, to allow oral or written comments to be presented to the BLM. Please see BLM's Web page at [www.blm.gov/ca/st/en/fo/palmsprings.html](http://www.blm.gov/ca/st/en/fo/palmsprings.html) for information about the location, date, and time of this meeting. All substantive issues raised during the comment period will be considered, and modifications based on these comments may be made to develop the Final EIS.

Additional hard copies or CD-ROM versions of the DEIS may be obtained by contacting the Palm Springs South Coast Field Office as noted in the previous paragraph. The document will also be available on the Internet at [www.blm.gov/ca/st/en/fo/palmsprings.html](http://www.blm.gov/ca/st/en/fo/palmsprings.html).

We are pleased to provide this copy of the DSSF Project DEIS for your review and extend our appreciation for your cooperation and assistance during this process. We look forward to your continued participation.

Sincerely,



John R. Kalish  
Field Manager

## EXECUTIVE SUMMARY

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### ES.1 INTRODUCTION

Desert Sunlight Holdings, LLC (Sunlight) proposes to construct and operate a 550-megawatt (MW) solar photovoltaic (PV) energy-generating project known as the Desert Sunlight Solar Farm (DSSF). The PV generating facility (Solar Farm), most of the corridor for the Project's 220-kilovolt (kV) generation interconnection transmission line (Gen-Tie Line), and one of two potential sites being considered for a new substation would be located on lands administered by the US Department of Interior (DOI), Bureau of Land Management (BLM), Palm Springs-South Coast Field Office. The Project includes development of a new 500- to 220- (500/220-) kV substation (referred to herein as the Red Bluff Substation), where the PV generating facility would interconnect with the Southern California Edison (SCE) regional transmission system. While the Red Bluff Substation is included as part of the Project for planning and environmental considerations, it would be constructed, owned, and operated by SCE, not the Applicant.

Because the Project would be located primarily on lands administered by the BLM, the Applicant filed a right-of-way (ROW) grant application with the BLM for a permit to construct and operate the Project (Case File Number CACA #48649). The decision regarding the issuance of the ROW grant will be based in part on an evaluation of the Project's potential environmental effects through the environmental review process under the National Environmental Policy Act of 1969 (NEPA) and the requirements of the Federal Land Policy and Management Act of 1976 (FLPMA).

In compliance with NEPA, the BLM prepared this Draft Environmental Impact Statement (EIS) to inform the public about the proposed Project and to meet the needs of federal, state, and local permitting agencies in considering the Project. BLM authorization of a ROW grant for the Project would require a resource management land use plan amendment (PA) to the California Desert Conservation Area (CDCA) Plan (BLM 1980), as amended.

The California Public Utilities Commission (CPUC) has discretionary authority to issue a Permit to Construct (PTC) for SCE's proposed Red Bluff Substation, evaluated herein as a portion of the Project. As allowed by the California Environmental Quality Act (CEQA) Guidelines Section 15221, the California Public Utilities Commission intends to use this EIS to provide the environmental review required for its approval of SCE's PTC application under CEQA once that application is filed.

### ES.2 PURPOSE AND NEED

Sunlight applied to the BLM for a ROW grant on federal public land to develop the Solar Farm, the Gen-Tie Line route, and the Red Bluff Substation. Sunlight also applied to the Department of Energy (DOE) for a loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPA 05), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, PL 111-5 (the Recovery Act). This section discusses the BLM's and DOE's purpose and need for the Proposed Action, as required by NEPA, Sunlight's objectives in proposing the Proposed Action, and CEQA project objectives for the Red Bluff Substation.

### ***BLM Purpose and Need***

The BLM's purpose and need for the Proposed Action is to respond to Sunlight's application under Title V of the FLPMA (43 USC 1761) for a ROW grant to construct, operate, maintain, and decommission a utility-scale 550-MW PV solar energy facility (Solar Farm), Gen-Tie Line, and a 500/220-kV substation on public lands, in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws. The BLM will decide whether to approve, approve with modifications, or deny issuance of a ROW grant to Sunlight for the proposed DSSF Project and the related assignment of any ROW grant for the substation to SCE. Concurrently, the BLM's also will consider amending the CDCA Plan of 1980, as amended. The CDCA, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission not identified in that plan be considered through the land use plan amendment process. If it decides to approve the issuance of a ROW grant, the BLM also will amend the CDCA as required.

In conjunction with FLPMA, the BLM's applicable authorities include the following:

- Executive Order 13212, dated May 18, 2001, which mandates 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.
- The Energy Policy Act of 2005 (EPAct 05 or EPAct), which requires the DOI (BLM's parent agency) to approve at least 10,000 megawatts of non-hydropower renewable energy power on public lands by 2015.
- Secretarial Order 3285A1, Renewable Energy Development by the DOI, dated February 22, 2010. This Secretarial Order establishes the development of renewable energy as a priority for the DOI and creates a Departmental Task Force on Energy and Climate Change. It also announced a policy goal of identifying and prioritizing specific locations (study areas) best suited for large-scale production of solar energy.

### ***DOE Purpose and Need***

DOE is a cooperating agency on this EIS, in accordance with a memorandum of understanding between the DOE and BLM, signed in January 2010. DOE's purpose and need for agency action is to comply with its mandate under EPAct 2005 by selecting eligible projects that meet the goals of the act. DOE's proposed action is to issue a loan guarantee for this project under Title XVII of the EPAct 2005, as amended by the Recovery Act, which requires that construction for the Project commence by September 30, 2011.

DOE's purpose and need for the agency action is based on federal laws addressing the financing and promotion of renewable energy projects and need for immediate economic stimulus. The EPAct 2005 established a federal loan guarantee program within DOE for eligible energy projects. Title XVII of EPAct 2005 authorizes the Secretary of Energy to make loan guarantees for a variety of types of projects, including those that "avoid, reduce, or sequester air pollutants or anthropogenic [human-caused] emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the US at the time the guarantee is issued." The two principal goals of the loan guarantee program are to encourage commercial use in the US of new or significantly improved energy-related technologies and to achieve substantial

environmental benefits. EPLA 2005 was amended by the Recovery Act to create Section 1705, authorizing a new program for rapid deployment of renewable energy projects and related manufacturing facilities, electric power transmission projects, and leading edge biofuels projects that begin construction before September 30, 2011. The primary purposes of the Recovery Act are job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and state and local fiscal stabilization. The Section 1705 Program is designed to address the current economic conditions of the nation, in part, through renewable energy, transmission and leading edge biofuels projects.

### ***Applicant's Objectives for the Proposed Action***

Sunlight's fundamental objectives for the DSSF project are as follows:

- Construct, operate, and eventually decommission a 550-MW PV energy facility and associated interconnection transmission infrastructure; and
- Facilitate SCE's construction and operation of a substation in order to provide renewable electric power to California's transmission grid. This is to help meet federal and state renewable energy supply and greenhouse gas (GHG) emissions reduction requirements.

Sunlight is committed to constructing and operating the Project in an environmentally responsible manner and to providing a sustainable source of renewable energy to the state's investor-owned utilities and the public.

### ***CEQA Project Objectives***

SCE proposes to construct the Red Bluff Substation in response to interconnection requests from Desert Sunlight Holdings LLC as part of the Large Generator Interconnection Process (LGIP) process. CEQA Guidelines, Section 15124(b), requires a statement of project objectives, which are as follows for the Red Bluff Substation:

- Respond to interconnection requests as part of the LGIP from generators in the Desert Center area by constructing a substation to interconnect with the DPV 500-kV transmission line;
- Provide safe and reliable electrical service consistent with the North American Electric Reliability Corporation, Federal Energy Regulatory Commission, California Independent System Operator, and SCE's planning design guidelines and criteria;
- Meet project need, while minimizing environmental impacts; and
- Meet project need in accordance with the Large Generation Interconnection Agreement.

## **ES.3 PROPOSED ACTION AND ALTERNATIVES**

The Project area is a largely vacant, undeveloped, and relatively flat and is in the Chuckwalla Valley of the Sonora Desert in eastern Riverside County. The area proposed for the DSSF is approximately six miles north of Interstate 10 (I-10) and the rural community of Desert Center and four miles north of Lake Tamarisk, between the cities of Coachella to the west and Blythe to the east. The Project area contains transmission lines, telephone lines, pipelines, and dirt roads. Joshua Tree National Park is north, east, and west of the area; at its closest point, the DSSF site is approximately

1.4 miles southwest of the national park boundary. The inactive Eagle Mountain Mine is approximately one mile west of the Project Study Area. The areas being considered for the Red Bluff Substation are seven to eight miles southeast or southwest (depending on the site) of the DSSF site, just south of I-10.

Alternatives considered in the EIS were evaluated as a result of the Applicant working with the BLM on evaluating and selecting Project locations, issues identified by the BLM, and comments received during the public scoping process. The BLM is required to consider in detail a range of alternatives that are considered “reasonable,” usually defined as alternatives that are realistic (not speculative), that are technologically and economically feasible, and that respond to the purpose of and need for the Proposed Action. Similarly, CEQA requires a “reasonable range” of alternatives that are feasible and that satisfy most of the project sponsor’s objectives. For this EIS, the alternatives provided satisfy requirements under both NEPA and CEQA.

Three full action alternatives (Alternatives 1, 2, and 3) and three No Action/No Project alternatives (Alternatives 4, 5, and 6) are fully analyzed in the EIS. Each of the action alternatives would require an amendment to the CDCA Plan, as would two of the three No Action/No Project Alternatives.

Each action alternative consists of three main components associated with generating and delivering electricity:

- DSSF Site (the main PV generating facility);
- 220-kV Gen-Tie (transmission) Line; and
- 500/220-kV Substation (Red Bluff Substation) and supporting facilities, including a separate telecommunications site (the Desert Center Telecommunications Site), an electric distribution line to the substation, drainage facilities, and an access road.

In addition, the determination of the suitability of the Project application area for solar development would be made as part of the plan amendment process.

Multiple alternatives were considered for each component. For the DSSF, two alternative layouts were analyzed: Solar Farm Layout B and Solar Farm Layout C. For the Gen-Tie Line, three alternative routes were analyzed: two that exit the DSSF and go to Substation A (identified as GT-A-1 and GT-A-2) and one that exits the DSSF and goes to Substation B (identified as GT-B-2). For the Red Bluff Substation, two alternative locations were analyzed: Substation A (to the east) and Substation B (to the west). In addition, there are two access road alternatives considered for Substation A only.

### **Alternatives Considered in Detail**

The following alternatives are described in detail in Section 2.2.4 and are fully analyzed in the EIS. Table ES-1 provides a comparison summary of the permanent footprint for the three action alternatives.

**Table ES-1**  
**Comparison Summary of Permanent Ground Disturbance for**  
**Action Alternatives 1, 2, and 3 (in Acres)**

Project Component/Element	Alternative 1: Proposed Action	Alternative 2: Alternate Action	Alternative 3: Reduced Solar Farm Footprint Alternative
<b>Project Power Output</b>	<b>550 MW</b>	<b>550 MW</b>	<b>314 MW</b>
Solar Farm Layout B (1)	4,245	4,245	-
Solar Farm Layout C (1)	-	-	3,045
Gen-Tie Line A-1 (2a)	18	-	-
Gen-Tie Line A-2 (2b)	-	-	23
Gen-Tie Line B-2 (2c)	-	11	-
Red Bluff Substation A	75	-	75
Red Bluff Substation-related features	-	-	-
- Drainage/Sideslopes	20	-	20
- Access Road (3a)	19	-	19
- Transmission System (4)	5	-	5
- Distribution System (5)	8	-	8
- Telecom Site (6)	<1	-	<1
Red Bluff Substation B	-	75	-
Red Bluff Substation-related features	-	-	-
- Drainage/Sideslopes	-	11	-
- Access Road (3b)	-	1	-
- Transmission System (4)	-	2	-
- Distribution System (5)	-	1	-
- Telecom Site (6)	-	<1	-
<b>TOTAL ACREAGE</b>	<b>4,391</b>	<b>4,347</b>	<b>3,196</b>

- Notes:** (1) Includes area for all DSSF-related facilities.  
(2a) Permanent and temporary disturbance occurs within a 12.1-mile by 160-foot-wide corridor, plus additional fan-shaped areas at corners for stringing activities.  
(2b) Permanent and temporary disturbance occurs within a 10-mile by 160-foot-wide corridor, plus additional fan-shaped areas at corners, for stringing activities.  
(2c) Permanent and temporary disturbance occurs within a 10.5-mile by 160-foot-wide corridor, plus additional fan-shaped areas at corners, for stringing activities.  
(3a) Assume 24,000-foot by 30-foot-wide road from Kaiser Road for Alternative 1 and 24,000 by 30-foot-wide road from Chuckwalla Valley Road/Corn Springs Road for Alternative 2, although acreage amount allows for additional disturbance for adequate engineering and unknown site constraints.  
(3b) Assume 2,000-foot by 18-foot-wide road from Eagle Mountain Road.  
(4) Includes transmission system associated with connecting Red Bluff Substation to Gen-Tie Line and DPV1.  
(5) Distribution system for substation power and light, including new access road.  
(6) New Desert Center Communications Site.

***Alternative 1—Proposed Action Alternative with Land Use Plan Amendment***

With the Proposed Action Alternative, the following configurations of the three project components are proposed, resulting in approximately 4,391 acres of permanent disturbance:

- Solar Farm Layout B (SF-B);

- Gen-Tie Line A-1 (GT-A-1); and
- Red Bluff Substation A, with Access Road 2.

Solar Farm Layout B is six miles north of the Desert Center and four miles north of Lake Tamarisk, northeast of and next to Kaiser Road, and southwest of Pinto Wash. SF-B encompasses approximately 4,245 acres entirely on BLM-administered land. Access would be provided by Kaiser Road. Once fully operational, it would produce 550 megawatts of power.

GT-A-1 exits the southwest of the DSSF, runs south along the west side of Kaiser Road, turns east just north of Desert Center, and then runs south across I-10 to the eastern location being considered for the Red Bluff Substation (Red Bluff Substation A). The 160-foot-wide Gen-Tie corridor and additional fan-shaped areas at corners used for wire stringing for GT-A-1 would encompass approximately 256 acres, although permanent disturbance within this corridor would be only 18 acres. The total length of GT-A-1 is approximately 12.1 miles. Of the 12-mile ROW, approximately 11.4 miles would be on BLM land and approximately 0.6 mile would be on land owned in fee by the Metropolitan Water District of Southern California. For the Gen-Tie Line, the Applicant proposes to use steel monopoles, which are expected to be approximately 135 feet tall. Typical spacing between structures would be approximately 900 to 1,100 feet.

Red Bluff Substation A would be on approximately 75 acres of BLM-administered land, approximately four miles southeast of California State Route 177, just south of I-10. The substation would be constructed within the central portion of the parcel. Other substation-related project elements would require an additional 53 acres. These elements include drainage features, access road, electrical distribution line, transmission system loop-in, and a telecommunications site.

***Alternative 2—Alternate Action Alternative with Land Use Plan Amendment***

With the Alternate Action Alternative, the following configurations of the three project components are proposed, resulting in approximately 4,347 acres of permanent disturbance:

- Solar Farm Layout B (SF-B);
- Gen-Tie Line B-2 (GT-B-2); and
- Red Bluff Substation B.

Solar Farm B is as described for Alternative 1.

GT-B-2 would exit the southwest corner of the Solar Farm Site, would run south along the west side of Kaiser Road, then would turn southwest, approximately 1.2 miles north of Desert Center. Then it would travel across Eagle Mountain Road, finally turning south across I-10 to the western location that is being considered for the Red Bluff Substation (Red Bluff Substation B). The 160-foot-wide Gen-Tie corridor and additional fan-shaped areas at corners used for wire stringing would encompass approximately 203 acres, although permanent disturbance within this corridor would be only 11 acres. The total length of GT-B-2 would be approximately 10 miles. Of the 10-mile ROW, approximately 9.4 miles would be on BLM land and approximately 0.6 mile would be on land owned in fee by the Metropolitan Water District of Southern California. The poles used for the Gen-Tie Line would be the same as those described for Alternative 1.

Red Bluff Substation B would be within a 160-acre parcel of private land south of I-10 at Eagle Mountain Road. This substation is expected to require approximately 75 acres and would be generally located in the center of the parcel. Other substation-related project elements would require an additional 16 acres. Because this substation site is on a parcel of privately owned land, it would be need to be acquired and subsequently owned by SCE.

***Alternative 3—Reduced Solar Farm Footprint Alternative with Land Use Plan Amendment***

With the Reduced Solar Farm Footprint Alternative, the following configurations of the three project components are proposed, resulting in approximately 3,196 acres of permanent disturbance:

- Solar Farm Layout C (SF-C);
- Gen-Tie Line A-2 (GT-A-2); and
- Red Bluff Substation A, with Access Road 2.

SF-C would be in the same general location as SF-B but would be smaller to reduce overall environmental impacts, particularly on the desert tortoise. The acreage required for this layout would be 3,045, and the power output would be 413 MW. The construction schedule would be 26 months, the same as for SF-B.

GT-A-2 would exit the southwest corner of the DSSF would run for approximately 4,400 feet along the east side of Kaiser Road, until it intersects with the ROW of an existing SCE transmission line. Then it would run to the southeast, along the existing transmission ROW, for approximately 7.2 miles then would turn south for approximately 0.6 mile. Then it would continue due west for approximately 0.5 mile, finally turning south cross I-10 and would continue approximately 1,000 feet (not along any existing feature) to Red Bluff Substation A. The GT-A-2 160-foot-wide Gen-Tie corridor and additional fan-shaped areas at corners used for wire stringing would encompass approximately 226 acres, although permanent disturbance within this corridor would be only 23 acres. The total length of GT-A-2 is approximately 10.5 miles. Of the 10.5-mile ROW, 6.5 miles would be on BLM land and 4.0 miles would be on private land. For the portions on private land, 21 separate parcels would be crossed.

Red Bluff Substation A is as described for Alternative 1.

***Alternative 4—No Issuance of a Right-of-Way Grant (No Action)***

With this No Action Alternative, the Project would not be approved (all components of the project would be denied), no ROW grant would be issued to the Applicant, and no CDCA Plan amendment would be approved that would make the land available for large-scale solar development.

***Alternative 5—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Unsuitable for Solar Energy Development (No Action with Plan Amendment)***

With this No Action Alternative, the Project would not be approved (all components of the project would be denied), no ROW grant would be issued to the Applicant, and the CDCA plan would be amended to identify the Project area as unsuitable for future large-scale solar energy development.

***Alternative 6—No Issuance of a Right-of-Way Grant with Land Use Plan Amendment to Identify the Area as Suitable for Solar Energy Development (No Action with Plan Amendment)***

Under this No Action Alternative, the Project would not be approved (all components of the project would be denied), no ROW grant would be issued to the Applicant, and the CDCA plan would be amended to identify the project area as suitable for future large-scale solar energy development.

**Features Common to all Action Alternatives**

Features common to all action alternatives, regardless of the particular layout or route selected, are summarized below.

The DSSF, where the power would be generated, would encompass up to 4,245 acres, consisting of the following components:

- Main generation area, which includes PV arrays, combining switchgear, overhead lines, and access corridors;
- Operations and Maintenance (O&M) Facility;
- Solar Energy Visitors Center;
- On-site substation (where the voltage of the DSSF-generated electricity would be stepped up to 220 kV, which is the voltage of the Gen-Tie Line); and
- Site security and fencing.

The Gen-Tie Line would transmit the electricity generated at the DSSF to the regional transmission system, through the Red Bluff Substation where the power from the DSSF would feed into the SCE's existing Devers Palo Verde 1 (DPV1) 500-kV transmission line. The Gen-Tie Line would be up to 12.1 miles long, encompassing up to 256 acres. For the Gen-Tie Line, the Applicant plans to use steel monopoles 135 feet high and approximately 900 to 1,100 feet apart.

The 500/220-kV Red Bluff Substation would be on approximately 75 acres, with up to an additional 53 acres of permanent disturbance needed for related features, access roads, and drainage control. It would interconnect the power from the DSSF (through the Gen-Tie Line) to SCE's DPV1 transmission line, which passes next to the two substation sites evaluated in this EIS. Substation features are as follows:

- Transmission lines to connect the substation to the DPV1 line;
- Connection of the PV Project's Gen-Tie Line into the substation;
- Modification of some DPV1 towers near the substation;
- Construction of an electric distribution line for substation light and power;
- Installation of telecommunications facilities associated with the Project and the substation;
- Construction of drainage control features outside (but next to) the substation footprint; and
- Construction of new or improvements to existing access roads.

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## **Project Implementation for Action Alternatives**

### ***Project Construction***

The construction of the Project would begin once all applicable approvals and permits have been obtained. Project construction is expected to take approximately 26 months from the beginning of the construction process to completion of construction of the DSSF, the Gen-Tie Line, and Red Bluff Substation. The substation would be constructed on a schedule that allows interconnection and partial energization of the DSSF before Project construction is complete.

### ***Operation and Facility Maintenance***

The DSSF is designed to have essentially no moving parts, no thermal cycle, and no water use for electricity generation or PV module cleaning. After completion of the construction phase of the Project, the only water used would be for domestic purposes (drinking, washing, flushing toilets) in the on-site facilities, including the O&M Facility and the Visitors Center. This simple Project design would require only limited maintenance throughout its lifetime.

Operation and maintenance of the proposed Project Gen-Tie Line would involve periodic inspection via helicopter or truck. The transmission lines would be maintained on an as-needed basis and would include maintenance of access roads and erosion/drainage control structures.

The Red Bluff Substation would be unstaffed, and electrical equipment would be remotely monitored. SCE personnel would visit the substation three to four times per month for routine maintenance, which would include equipment testing, monitoring, and repair.

### ***Project Decommissioning***

The DSSF has a minimum expected lifetime of 30 years, with an opportunity for a lifetime of 50 years or more with equipment replacement and repowering. When the Project concludes operations, much of the wire, steel, and modules that make up the system would be recycled to the extent feasible. The Project components would be deconstructed and recycled or disposed of safely, and the DSSF site could be converted to other uses, in accordance with applicable land use regulations in effect at the time of closure. Consistent with BLM and NEPA requirements, a detailed Decommissioning and Reclamation Plan would be developed to protect public health and safety and to be environmentally acceptable.

### **Alternatives Considered but Eliminated from Further Analysis**

Alternatives not carried forward did not meet project purpose and need or project objectives, were deemed to be technically disadvantageous, or had greater environmental impacts than the currently proposed Project alternatives. These alternatives were considered but eliminated from further analysis:

- Larger Project within the Project Study Area;
- Direct Desert Tortoise Avoidance Alternative within the Project Study Area;
- Private Land in the Chuckwalla Valley;
- Contaminated Sites Near the Devers-Palo Verde Corridor;
- Alternative BLM Land;

- Alternate Nonrenewable Power Generating Technologies;
- Concentrating Solar Power Technologies;
- Wind Energy;
- Alternative Transmission and Interconnection Locations; and
- Distributed and Rooftop Photovoltaics.

#### **ES.4 PUBLIC AND AGENCY COORDINATION**

The BLM, DOE, and California Public Utilities Commission rely on the public to help identify key issues, to suggest a range of alternatives and appropriate mitigation, and to comment on the environmental analysis.

##### ***Public Scoping Process and Summary***

The BLM published a Notice of Intent (NOI) to prepare an EIS on January 13, 2010, in the *Federal Register*, Volume 75, Number 8. Publication of the NOI began a 30-day comment period that ended February 12, 2010. The BLM established a Web site, with Project information describing the various methods for providing public comment on the Project and including an e-mail address where comments could be sent electronically. (Refer to Section 5.3.2 for the Web site and e-mail addresses.)

Notification for a public scoping meeting, held on January 28, 2010, was posted on the BLM's Web site and was e-mailed to the local newspaper, *The Desert Sun*, on January 13, 2010. In addition, notices were sent by certified mail to responsible and trustee agencies under CEQA, to all landowners within 300 feet of the project boundary, and to other interested parties.

A public scoping meeting was held on January 28, 2010, at the University of Riverside Palm Desert Graduate Center, 75-080 Frank Sinatra Drive, Palm Desert, California. Sunlight made a presentation describing the project, and the BLM made presentations describing the environmental review process. Twenty-two people wrote their names on a voluntary sign-in sheet.

Fourteen comment letters were received during the scoping comment period that ended on February 12, 2010. Comments were received on the following categories: purpose and need, alternatives development, air resources (air sheds), water resources (surface and groundwater), biological resources (vegetation and wildlife), cultural resources, visual resources, land use and special designations, public health and safety, noise and vibration, recreation, socioeconomics, environmental justice, and cumulative impacts. Comments received during scoping are addressed in the analysis of impacts in this EIS.

##### ***Public Outreach Activities***

First Solar has engaged in additional public outreach for the Desert Sunlight Project in order to further promote public participation in the development plans for the project. These activities include meetings held with individuals and groups commenting on the project, additional workshops held in the local community providing direct access for the community to ask questions and comment on the project, and discussions with local, state, and federal government officials and meetings with individual groups. Based on these discussions, First Solar conducted additional

environmental studies to help further assess potential environmental effects of the project, considered additional alternatives to provide a greater range of reasonable alternatives for the project, and adjusted the project alternative boundaries to lessen the potential environmental impacts of the project. Information collected or developed as a result of these meetings was provided to the BLM and has been incorporated into this document.

### **Agency Coordination**

Federal, state, and local permits and approvals would be required before construction and operation of the Project, or any action alternative, could proceed. A list of the major permits, approvals, and consultations required is presented in the EIS. The Applicants (Sunlight and SCE) would be responsible for obtaining all permits and approvals required to implement any authorized activities.

Federal agencies requiring permits for one or more project components are the following:

- BLM;
- DOE; and
- US Fish and Wildlife Service.

State agencies requiring permits for one or more project components are as follows:

- California Department of Fish and Game;
- Regional Water Quality Control Board;
- California Independent System Operator;
- California Public Utilities Commission;
- California Department of Transportation;
- South Coast Air Quality Management District; and
- Native American Heritage Commission.

Local agencies requiring permits for one or more project components are as follows:

- Riverside County and
- Metropolitan Water District of Southern California.

## **ES.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES**

The analysis contained in this EIS indicates that the potential environmental effects from implementation of the proposed Project (or one of the other action alternatives) would result in adverse effects, although most can be reduced with mitigation. However, the impacts on air resources, cultural resources, and visual resources cannot be reduced to less than significant and are unavoidable.

Table ES-2 provides a summary of impacts by alternative; Table ES-3 provides a summary of all measures identified by Sunlight or SCE, measures required by law, regulation, or policy, and additional measures identified by the BLM.

**Table ES-2  
Summary of Project Impacts by Alternative**

<b>Resource</b>	<b>Alternative 1 Proposed Action Alternative</b>	<b>Alternative 2 Alternate Action Alternative</b>	<b>Alternative 3 Reduced Footprint Alternative</b>	<b>Alternative 4 No Action (No ROW Grant, No PA)</b>	<b>Alternative 5 No Action: ROW Grant, PA to Exclude Solar</b>	<b>Alternative 6 No Action: No ROW Grant, PA to Allow Solar</b>
<b>3.2/4.2 Air Resources</b>						
	<i>Construction:</i> Construction activities and associated vehicle traffic would generate emissions of criteria pollutants and hazardous air pollutants. Daily construction-related emissions for SF-B would exceed SCAQMD regional emissions significance thresholds for reactive organic compounds, nitrogen oxides, carbon monoxide, PM10, and PM2.5.	Similar to Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> Operational emissions would involve vehicle travel by Solar Farm employees or other employees conducting periodic inspections or maintenance activity along the Gen-Tie Line or at the Red Bluff Substation. Emissions would be minor.	Same as Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Emissions would be comparable in type and magnitude, but likely lower than, the construction emissions.	Same as Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.3/4.3 Vegetation</b>						
	<i>Construction:</i> Permanent removal of 4,327 acres of creosote bush scrub, 62 acres of desert dry wash woodland, 6 special status plant species, and 253 acres of jurisdictional resources (includes desert dry wash woodland).	Permanent removal of 4,295 acres of creosote bush scrub, 51 acres of desert dry wash woodland, 5 special status plant species, and 319 acres of jurisdictional resources (includes desert dry wash woodland).	Permanent removal of 3,121 acres of creosote bush scrub, 67 acres of desert dry wash woodland, 6 special status plant species, and 292 acres of jurisdictional resources (includes desert dry wash woodland).	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> Changes in the site's geomorphic conditions and site hydrology could adversely affect hydrology and water quality of desert dry wash woodland and jurisdictional resources located downstream of site. Maintenance of access roads has potential to introduce dust and invasive species into areas immediately adjacent to the site.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Decommissioning activities have potential to introduce dust and invasive species into areas immediately adjacent to the site.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.4/4.4 Wildlife</b>						
	<i>Construction:</i> Construction would result in permanent habitat loss for wildlife, including special status wildlife and breeding and foraging habitat for non-special status species. Construction would also result in the permanent disturbance of 131.6 acres of the Chuckwalla DWMA and 137.8 acres of the Chuckwalla desert tortoise CHU. Trash and debris generated by construction activities could attract predators of desert tortoise, common ravens, to the site.	Similar to Proposed Action. Fewer acres of Chuckwalla DWMA (7.5 acres) and Chuckwalla CHU (96.5 acres) would be affected.	Similar to Proposed Action. Similar acres of Chuckwalla DWMA (129.4 acres) and Chuckwalla CHU (131.6 acres) would be affected.	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> Permanent occupation of the site by employees could also introduce trash into the area which could attract common ravens. Transmission line towers provide artificial perches and nest sites for raptors and ravens and, therefore, could also attract common raven to the area.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Trash and debris generated by decommissioning activities could attract predators of desert tortoise, common ravens, to the site.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.5/4.5 Climate Change</b>						
	<i>Construction:</i> Construction activities and associated vehicle traffic would generate emissions of GHG pollutants.	Similar to Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action

**Table ES-2 (continued)  
Summary of Project Impacts by Alternative**

Resource	Alternative 1 Proposed Action Alternative	Alternative 2 Alternate Action Alternative	Alternative 3 Reduced Footprint Alternative	Alternative 4 No Action (No ROW Grant, No PA)	Alternative 5 No Action: ROW Grant, PA to Exclude Solar	Alternative 6 No Action: No ROW Grant, PA to Allow Solar
<p><i>Operations:</i> O&amp;M activities for the Project would be small sources of on-going GHG emissions. Only the solar farm facility would have on-site employees. However, the annual GHG emissions generated by O&amp;M activities at Project facilities would be more than off-set by the avoided greenhouse gas emissions that result from solar-based electrical power generation that effectively displaces other sources of power generation.</p>	Same as Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action	
<p><i>Decommissioning:</i> Greenhouse gas emissions from facility decommissioning would be generally similar in nature to those of facility construction, but emission quantities would likely be less than those generated by construction activities.</p>	Same as Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action	
<b>3.6/4.6 Cultural Resources</b>	<p><i>Construction:</i> Construction would directly impact at least 73 sites within the footprint of alternative components. Twenty-six of the sites are potentially CRHR-eligible. In addition, construction would directly impact the potential DTC-CAMA Historic District and the North Chuckwalla Petroglyph District (CA-RIV-1383, NRHP-listed). Construction would indirectly impact the historic landscapes of the Colorado River Aqueduct (NRHP-eligible), the North Chuckwalla Mountains Quarry District (CA-RIV-1814, NRHP-listed), and prehistoric site CA-RIV-330 (NRHP-eligible) by constructing modern elements that would disturb the historic setting of these resources.</p> <p>Native American consultation is on-going at this time and may find that sacred sites, TCPs, or traditional use areas are present within or near the Alternative 1 construction area. Construction may directly disturb Native American resources, impede access to these areas, or otherwise disrupt traditional practices.</p>	<p><i>Construction:</i> Construction would directly impact 58 sites within the footprint of alternative components. Twenty-five of the sites are potentially CRHR-eligible and assumed to be NRHP-eligible. Thirteen are believed to be associated with the DTC-CAMA Historic District. All project components would have indirect audible and visual impacts on the historic landscapes of the Colorado River Aqueduct (NRHP-eligible), North Chuckwalla Petroglyph District (CA-RIV-1383, NRHP-listed), North Chuckwalla Mountains Quarry District (CA-RIV-1814, NRHP-listed), and prehistoric site CA-RIV-330 (NRHP-eligible) by constructing modern elements that would disturb the historic setting of these resources.</p> <p>Native American impacts would be the same as for the Proposed Action.</p>	<p><i>Construction:</i> Construction would directly impact 41 sites within the footprint of alternative components, as well as the potential DTC-CAMA Historic district and the North Chuckwalla Petroglyph District (CA-RIV-1383, NRHP-listed). Nineteen are potentially CRHR-eligible, nine of these are believed to be associated with the DTC, and one is a contributing, NRHP-listed site in the North Chuckwalla Petroglyph District. All project components would indirectly impact the historic landscapes of the Colorado River Aqueduct (NRHP-eligible), the North Chuckwalla Mountains Quarry District (CA-RIV-1814, NRHP-listed), and prehistoric site CA-RIV-330 (NRHP-eligible) by constructing modern elements that would disturb the historic setting of these resources.</p> <p>Native American impacts would be the same as for the Proposed Action.</p>	No Impact	No Impact	Similar to Proposed Action

**Table ES-2 (continued)  
Summary of Project Impacts by Alternative**

<b>Resource</b>	<b>Alternative 1 Proposed Action Alternative</b>	<b>Alternative 2 Alternate Action Alternative</b>	<b>Alternative 3 Reduced Footprint Alternative</b>	<b>Alternative 4 No Action (No ROW Grant, No PA)</b>	<b>Alternative 5 No Action: ROW Grant, PA to Exclude Solar</b>	<b>Alternative 6 No Action: PA to Allow Solar</b>
	<i>Operations:</i> O&M would primarily have indirect impacts on the historic landscapes of five resources and possibly an unknown number of Native American resources, stemming from new construction within these landscapes that would not be in keeping with the historic nature and setting of the resources. The presence of Project components may exclude Native American access to resources of traditional significance or detract from the viewshed of a sacred site, traditional use area, or TCP.	Similar to Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Decommissioning would restore the historic landscapes of three other NRHP-eligible or -listed cultural resources. Additionally, the viewshed of possible sacred sites, TCPs, and traditional use areas would be restored, as would access by Native Americans to use such areas within the Project area. However, direct impacts on one potential historic district and another NRHP- and CRHR-listed district would remain since construction of Alternative 1 would permanently impact sites that contribute to these districts.	Similar to Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.7/4.7 Paleontological Resources</b>						
	<i>Construction:</i> Construction would have low potential for direct impacts on vertebrate fossils and other scientifically valuable paleontological resources.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> Same as for construction.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Same as for construction.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.8/4.8 Geology and Soil Resources</b>						
	<i>Construction:</i> Construction would increase exposure of people and/or property to seismic hazards and increase erosion of soils from wind and water.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> O&M would increase exposure of people and/or property to seismic hazards.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Same as for construction.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.9/4.9 Lands and Realty</b>						
	<i>Construction:</i> Construction would develop 4,391 acres, primarily consisting of generally undeveloped BLM-administered land, including 0.0003% of the Chuckwalla DWMA and CHU, and a small amount of MWD and private land, precluding other uses of these lands. Additional acreage would temporarily be disturbed during construction for access roads, staging areas, and similar purposes necessary for construction to take place. All portions of the development that would be on BLM-administered land would be compatible with the CDCA Plan.	Similar to Proposed Action (4,347 acres vs 4,391 acres)	Fewer acres developed than Proposed Action (3,196 acres vs 4,391)	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> O&M would continue use of land for the Proposed Project, thereby precluding other potential uses of the area.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Decommissioning would make the land available for other uses.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action

**Table ES-2 (continued)  
Summary of Project Impacts by Alternative**

Resource	Alternative 1 Proposed Action Alternative	Alternative 2 Alternate Action Alternative	Alternative 3 Reduced Footprint Alternative	Alternative 4 No Action (No ROW Grant, No PA)	Alternative 5 No Action: ROW Grant, PA to Exclude Solar	Alternative 6 No Action: No ROW Grant, PA to Allow Solar
<b>3.10/4.10 Noise and Vibration</b>						
	<i>Construction:</i> Construction activities for all project components would generate temporary increases in local noise levels. On-site noise levels would diminish rapidly with increasing distance from the active construction operations. Noise levels from on-site construction activity and construction-related traffic would not exceed Riverside County land use compatibility standards at existing residences. Temporary noise impacts to wildlife would be limited to the construction sites and immediately adjacent locations. Ground vibrations from construction equipment would not be perceptible at existing residences near the construction sites.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> Operational noise levels at the Solar Farm would be limited to occasional vehicle use within the site, minor maintenance activities, and low equipment noise from PCS stations and the on-site substation. Daytime and nighttime operational noise levels from the Solar Farm would be comparable to existing background noise levels at the property line. GT-A-1 would have no operational noise levels. Red Bluff Substation A would generate an operational CNEL level of about 60 dBA outside the Substation property line, but there are no noise-sensitive land uses near the Substation site.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Noise and vibration impacts of facility decommissioning would be similar to those of facility construction, but noise and vibration levels would likely be less than those generated by construction activities.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.11/4.11 Public Health and Safety/Hazardous Materials</b>						
	<i>Construction:</i> Construction would increase the exposure of people and the environment to hazards related to: <ul style="list-style-type: none"> <li>• Hazardous Materials/Hazardous Waste</li> <li>• Emergency Evacuation and Emergency Response Plans</li> <li>• Wildfire; and</li> <li>• Intentionally Destructive Acts</li> </ul> The 185-foot tower at the telecom site (associated with the Red Bluff Substation) has the potential to increase hazards because of the nearby private airstrip.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> Potential increase in hazards associated with the O&M of the 185-foot telecommunication site tower.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Decommissioning of Red Bluff Substation would decrease hazards associated with the 185-foot microwave tower at the telecom site.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.12/4.12 Recreation</b>						
	<i>Construction:</i> Construction of SF-B would close and reroute portions of three OHV routes; however, other travel options exist in the area. There are no OHV or travel routes within GT-A-1 and Red Bluff Substation A. Construction of the visitor's center could have beneficial impacts to the area.	Same as Proposed Action	Same as Proposed Action except that there would be no impact to OHV or recreational activities as construction of SF-C would not require that the three OHV routes in the vicinity be closed or rerouted.	No Impact	No Impact	Similar to Proposed Action

**Table ES-2 (continued)  
Summary of Project Impacts by Alternative**

<b>Resource</b>	<b>Alternative 1 Proposed Action Alternative</b>	<b>Alternative 2 Alternate Action Alternative</b>	<b>Alternative 3 Reduced Footprint Alternative</b>	<b>Alternative 4 No Action (No ROW Grant, No PA)</b>	<b>Alternative 5 No Action: ROW Grant, PA to Exclude Solar</b>	<b>Alternative 6 No Action: PA to Allow Solar</b>
	<i>Operations:</i> Similar to construction.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Similar to construction.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.13/4.13 Socioeconomic and Environmental Justice</b>						
	<i>Construction:</i> SF-B and the Red Bluff Substation A are situated on BLM land and, as such, the construction of these facilities would not displace either local or regional businesses or residents, nor would it result in a substantial reduction in employment or income in the regional and local economy. They would result in short-term increases in regional employment and income if the construction crew hired to work on the Project were not previously employed. It could indirectly generate increased expenditures, income, and employment in the local economies in which the construction workforce spends its earnings and would generate direct expenditures in the regional economy for equipment, supplies, and services. No impacts that could occur to environmental justice populations would be disproportionate to these populations.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> O&M for the Project would not result in measurable impacts on socioeconomics of the region or local communities. Likewise, no impacts that could result from O&M on environmental justice populations would be disproportionate to these populations. Operations would not displace either businesses or residents, nor would it substantially reduce the employment or income in the regional economy.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> The decommissioning of Project components would result in short-term impacts on the regional economy in Riverside County through an increase in employment required to decommission the DSSF. Once completely removed, potential long-term impacts include a reduction of property tax revenue because the land would no longer be developed and improved, thereby eliminating the requisite property tax.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.14/4.14 Special Designations</b>						
	<i>Construction:</i> Construction of SF-B and Red Bluff Substation A would cause temporary indirect impacts on the Joshua Tree Wilderness Area and Chuckwalla Mountains Wilderness. Indirect impacts would be associated with fugitive dust, noise, and nighttime lighting. Construction would not cause impacts on cultural resources within Alligator Rock ACEC.	Same as Proposed Action	Similar to Proposed Action, slightly reduced impacts for SF-C	No Impact	No Impact	Similar to Proposed Action
	<i>Operations:</i> O&M of SF-B would cause permanent indirect impacts on users of the Joshua Tree Wilderness Area.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<i>Decommissioning:</i> Similar to construction and O&M.	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action

**Table ES-2 (continued)  
Summary of Project Impacts by Alternative**

Resource	Alternative 1 Proposed Action Alternative	Alternative 2 Alternate Action Alternative	Alternative 3 Reduced Footprint Alternative	Alternative 4 No Action (No ROW Grant, No PA)	Alternative 5 No Action: ROW Grant, PA to Exclude Solar	Alternative 6 No Action: No ROW Grant, PA to Allow Solar
<b>3.15/4.15 Transportation and Public Access</b>						
	<p><i>Construction:</i> Delay at intersections would increase slightly; however, the LOS of intersections would remain at "A". Portions of the Project would overlap low-level military flight paths. The Telecom Site would be approximately 5,500 feet from the runway of the former Desert Center Airport. Project-generated traffic would contribute to deterioration of local roads. Road or lane closures, traffic rerouting, and other traffic controls (such as flaggers) would be required for short durations during construction of GT-A-1 for certain activities such as wire stringing across roads.</p>	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<p><i>Operations:</i> Minimal traffic impacts. No impacts for other issues.</p>	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<p><i>Decommissioning:</i> Similar to construction.</p>	Same as Proposed Action	Same as Proposed Action	No Impact	No Impact	Similar to Proposed Action
<b>3.16/4.16 Visual Resources</b>						
	<p><i>Construction:</i> Construction would result in the temporary disturbance of approximately 124 acres and the permanent disturbance of approximately 4,338 acres. Impacts from construction activities, equipment, and vehicles would be visible and changes to the characteristic landscape from construction would alter visual resources. For KOPs 1, 2, and 5, the degree of contrast would comply with interim visual management Class II and III objectives. For KOPs 3, 4, and 6, the strong degree of contrast would not comply with interim visual management Class II and III objectives.</p>	Similar to Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<p><i>Operations:</i> Impacts from O&amp;M would be visible and changes to the characteristic landscape would alter visual resources. For KOPs 1, 2, and 5, the degree of contrast would comply with interim visual management Class II and III objectives. Due to the proximity of KOPs 3, 4, and 6 to Project components, the degree of contrast would not comply with interim visual management Class II and III objectives.</p>	Similar to Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action
	<p><i>Decommissioning:</i> Decommissioning would result in rehabilitating approximately 4,338 acres. Impacts from decommissioning would be visible. Changes to the characteristic landscape from decommissioning would restore the natural visual resources to the landscape. This would not occur until the end of the Project lifespan, which could be greater than 50 years. Due to the slow pace of natural desert ecology, however, it would likely take decades after decommissioning for the landscape to resemble the existing conditions. The level of change to the characteristic landscape would comply with interim visual management Class II and III objectives. Decommissioning activities would be expected to leave the landscape in a condition that does not attract attention.</p>	Similar to Proposed Action	Similar to Proposed Action	No Impact	No Impact	Similar to Proposed Action

**Table ES-2 (continued)  
Summary of Project Impacts by Alternative**

Resource	Alternative 1 Proposed Action Alternative	Alternative 2 Alternate Action Alternative	Alternative 3 Reduced Footprint Alternative	Alternative 4 No Action (No ROW Grant, No PA)	Alternative 5 No Action: ROW Grant, PA to Exclude Solar	Alternative 6 No Action: No ROW Grant, PA to Allow Solar
<b>3.17/4.17 Water Resources</b>						
	<p><i>Construction:</i> Proposed Project water demand would be approximately 703 AFY for the 26-month construction period, or approximately 25 percent of the available surplus inflow to the groundwater basin (estimated to be 2,600 to 3,300 AFY). Decompaction of the soil over 36 % of SF-B footprint would minimize any reduction in groundwater recharge caused by compacting the surface soil during construction. Drawdown in the aquifer in the vicinity of the well used to provide water for construction would be a maximum of approximately 18 feet, with minor drawdown extending more than one mile from the pumping well. Impacts would be temporary since they would occur only during construction. Construction would alter surface drainage patterns, but hydrologic modeling indicated that construction would result in minor changes in the 100-year storm characteristics. Runoff from storms could transport spilled substances off site into intermittent stream channels. Potential for flooding would not significantly increase during construction of SF-B. GT-A-1 would not increase flooding potential. Red Bluff Substation A would be constructed over the site of several intermittent stream channels. Design of the Substation incorporates diversion channels to divert runoff around the footprint of the Substation. Once constructed, the diversion channels would reduce the potential for flooding the construction site. A retention basin would also capture runoff and slow and reduce peak flows.</p>	Similar to Proposed Action	Similar to Proposed Action, although slightly reduced impacts	No Impact	No Impact	Similar to Proposed Action
	<p><i>Operations:</i> Impacts would be much less than during construction.</p>	Similar to Proposed Action	Similar to Proposed Action, although slightly reduced impacts	No Impact	No Impact	Similar to Proposed Action
	<p><i>Decommissioning:</i> Effects of decommissioning on water resources would be similar to those described for construction. The effects would primarily be from erosion of altered and unprotected land surfaces.</p>	Similar to Proposed Action	Similar to Proposed Action, although slightly reduced impacts	No Impact	No Impact	Similar to Proposed Action

**Notes:** CHU = Critical Habitat Unit  
 CRHR = California Register of Historic Resources  
 DWMA = Desert Wildlife Management Area  
 GHG = greenhouse gas  
 NRHP = National Register of Historic Places  
 O&M = Operation and Maintenance  
 OHV = off-highway vehicle  
 SCAQMD = South Coast Air Quality Management District  
 TCP = traditional cultural properties

**Table ES-3  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<p><b>Air Resources</b></p>	<p>Sunlight has designed the Project to incorporate various measures that will reduce on-site construction-related emissions and emissions from construction-related traffic.</p> <p><i>AM-AIR-1:</i> Sunlight shall develop and implement a dust control plan that includes the use of dust palliatives to ensure compliance with SCAQMD Rule 403. The dust control plan is expected to focus on reducing fugitive dust from construction activities.</p> <p><i>AM-AIR-2:</i> Construction activity shall be phased across the Solar Farm site in a manner that would minimize the area disturbed on any single day.</p> <p><i>AM-AIR-3:</i> Cut and fill quantities shall be balanced across the Solar Farm site to minimize emissions from grading activities and to avoid the need to import fill materials or to remove excess spoil.</p> <p><i>AM-AIR-4:</i> Sunlight shall use power screeners to obtain sand and gravel requirements on-site, rather than having construction sand and gravel delivered to the Solar Farm site by truck.</p> <p><i>AM-AIR-5:</i> Sunlight shall arrange a shuttle bus program for construction workers, with assembly points in the Palm Springs and Blythe areas. Sunlight expects this shuttle bus system to be heavily used by construction workers, with an average of 89.5 percent of construction workers accessing the Solar Farm site by shuttle bus.</p> <p>SCE has identified two applicant measures that will be implemented during construction of the Red Bluff Substation:</p> <p><i>AM-AIR-6:</i> SCE shall develop and implement a dust control plan to ensure compliance with SCAQMD Rule 403 during substation construction.</p> <p><i>AM-AIR-7:</i> SCE would require bidders for the construction contract to submit a transportation plan describing how workers would travel to the project site.</p>	<p><i>MM-AIR-1:</i> Sunlight and SCE shall give preference to construction contractors who have newer equipment with lower emission rates or who have retrofitted their equipment with supplemental emission control devices (diesel particulate filters and/or catalytic controls for nitrogen oxide emissions).</p> <p><i>MM-AIR-2:</i> Sunlight shall temporarily stockpile chipped or shredded vegetation debris from the Solar Farm site, then spread it on open areas of the site once construction activity has been completed on a subarea.</p> <p><i>MM-AIR-3:</i> Sunlight shall provide annual re-application of dust palliatives at the Solar Farm site to unpaved roads and parking areas and to the open areas between the rows of solar arrays. Annual re-application of dust palliatives would reduce fugitive dust from on-site vehicle travel and would reduce the net increase in wind erosion from the Solar Farm site.</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource Vegetation	Applicant Measures	Mitigation Measures
	<p><i>AM-BIO-1.</i> A <i>Habitat Compensation Plan</i> is being prepared and will be implemented by the Applicant to compensate for the loss of creosote desert scrub, desert dry wash woodland, and jurisdictional resources. Compensation will be accomplished by acquisition of mitigation land or conservation easements or by providing funding for specific land acquisition, endowment, restoration, and management actions under one of several programs including the recently approved mitigation program created by SB 34. The <i>Habitat Compensation Plan</i> will be reviewed and approved by BLM, the USFWS, and CDFG. The precise details of the mitigation, including mitigation ratios, will be established in the BLM ROW grant, USFWS Biological Opinion, and CDFG 2080.1 Consistency Determination. The draft plan is provided in Appendix H.</p> <p>At a minimum, mitigation ratios required in the NECO Plan/EIS are 1:1 for creosote bush scrub, 3:1 for desert dry wash woodland, and 5:1 for impacts to the Chuckwalla DWMA and Chuckwalla CHU). Mitigation ratios may be greater based upon the requirements of the USFWS and CDFG. Finally, areas occupied by the burrowing owl will be mitigated at 6.5 acres per occupied burrow (which will be covered by mitigation of creosote bush scrub habitat) and creation or enhancement of two burrows will be implemented for every active burrow.</p> <p><i>AM-BIO-2.</i> A Draft <i>Integrated Weed Management Plan</i> (IWMP) has been prepared pursuant to BLM’s <i>Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States</i> (BLM 2007) and the <i>National Invasive Species Management Plan</i> (The National Invasive Species Council 2008), and will be implemented by the Applicant to reduce the potential for the introduction of invasive species during construction, operation and maintenance, and decommissioning of the Project. The draft plan is in Appendix H of this document and will be reviewed and approved by the BLM.</p> <p>The following measures are required in the Plan and will be implemented by the Applicant to monitor and control invasive species (details associated with these measures are provided in Section 4.3):</p>	<p><i>MM-BIO-1. Construction Monitoring.</i> A BLM-approved biologist shall conduct construction monitoring during all construction activities to ensure that construction activities are contained within the staked and flagged construction areas at all times. The construction monitor shall also be present during all ground disturbing activities to either actively or passively relocate special status wildlife species, other than the desert tortoise, nesting bird species, and burrowing owl (e.g., rosy boa, chuckwalla, Palm Springs round-tailed squirrel, American badger, and Colorado Valley woodrat [and burro deer, Nelson’s bighorn sheep, and mountain lion if need be]), found within the construction zones to a suitable location outside of the project footprint. The construction monitor shall have the authority to stop work and report directly to the Applicant’s Environmental Manager (EM) to ensure compliance with the Project Description, applicant-proposed measures, and mitigation measures. The construction monitor shall provide the Applicant’s EM with weekly updates and quarterly monitoring reports. After construction has been completed, the construction monitor shall provide the Applicant’s EM with a final monitoring report. The Applicant’s EM shall provide BLM with weekly status updates on the status of construction and monitoring efforts and shall provide BLM with copies of the quarterly</p>

**Table ES-3 (continued)**  
**Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<b>Vegetation (continued)</b>	<ul style="list-style-type: none"> <li>• Preventative Measures During Construction</li> <li>• Containment and Control Measures</li> <li>• Monitoring</li> <li>• Reporting</li> <li>• Success Criteria</li> </ul> <p><i>AM-BIO-3. Pre-Construction Surveys for Special Status Plant Species and Cacti.</i> Prior to construction, the Applicant will stake and flag the construction area boundaries, including the construction areas for the Solar Farm site, Gen-Tie Lines, and Red Bluff Substation; construction laydown, parking, and work areas; and the boundaries of all temporary and permanent access roads. A BLM-approved biologist will then survey all areas of proposed ground disturbance for special status plant species and cacti during the appropriate blooming period for those species having the potential to occur in the construction areas. All special status plant species and cacti observed will be flagged for transplantation.</p> <p><i>AM-BIO-4. Worker Environmental Awareness Program (WEAP).</i> The Applicant will implement a WEAP to educate on-site workers about sensitive environmental issues associated with the Project. The program will be administered to all on-site personnel including surveyors, construction engineers, employees, contractors, contractor’s employees, supervisors, inspectors, subcontractors, and delivery personnel. The program will be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure. Details of the program are provided in Section 4.3.</p> <p>The training will place special emphasis on the special status species that have been observed in the Project locations or have a high likelihood to occur, including special status plant species, desert tortoise and other special status reptile species, Palm Springs round-tailed ground squirrel, burrowing owl, golden eagle, nesting bird species and bat species, and the American badger.</p>	<p>monitoring reports and the final monitoring report. BLM shall be responsible for ensuring that construction monitoring is conducted during all construction activities.</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<b>Vegetation (continued)</b>	<p>BLM will be responsible for ensuring that each construction worker at the site, throughout the duration of construction activities, receives the above training.</p> <p><i>AM-BIO-5.</i> The Applicant will prepare and implement a <i>Vegetation Resources Management Plan</i> that contains the following components (additional detail is provided in Section 4.3):</p> <ul style="list-style-type: none"> <li>• A <i>Vegetation Salvage Plan</i> which discusses the methods that will be used to transplant cacti present within the Project locations following BLM’s standard operating procedures, as well as methods that will be used to transplant special status plant species that occur in the Project locations if feasible.</li> <li>• A <i>Restoration Plan</i> which discusses the methods that will be used to restore creosote bush scrub and desert dry wash woodland habitat that is temporarily disturbed by construction activities.</li> </ul> <p>BLM will be responsible for reviewing and approving the Plan and for ensuring that the Applicant implements the Plan including maintenance and monitoring required in the Plan.</p>	
<b>Wildlife</b>	<p>Implementation of Applicant Measures BIO-1, BIO-2, BIO-4, and BIO-5 discussed in Section 4.3, Vegetation, would reduce impacts on wildlife as well.</p> <p><i>AM-WIL-1.</i> A Draft <i>Desert Tortoise Translocation Plan</i> has been prepared for the Project and will be implemented by the Applicant to ensure that construction monitoring will be conducted by a BLM-, USFWS-, and CDFG-approved biologists during all construction activities and that any desert tortoise found with the construction zone will be translocated to a suitable location outside of the project footprint. The draft plan is in Appendix H and will be reviewed and approved by BLM.</p> <p>The <i>Desert Tortoise Translocation Plan</i> contains an analysis of several recipient sites for desert tortoises to be translocated from the Solar Farm site and Red Bluff Substation. The final selected recipient site will be determined by BLM, the USFWS, and CDFG.</p>	<p>Implementation of Mitigation Measure BIO-1 discussed in Section 4.3, Vegetation, would reduce impacts on wildlife as well.</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
<b>Wildlife (continued)</b>	<p>Desert tortoises found along the linear components of the Project, including the Gen-Tie Line, Telecommunications site, and access roads will be relocated out of harm’s way pursuant to USFWS guidance. Specifically, biological monitors will be present during all construction activities to ensure that active burrows are avoided. If a desert tortoise is found, the tortoise will be allowed to passively traverse the site while construction in the immediate area is halted. If the tortoise does not move out of harm’s way after approximately 20 minutes, a biologist authorized to handle desert tortoise, will actively move the animal out of harm’s way. Vehicles parked in desert tortoise habitat will be inspected immediately prior to being moved. If a tortoise is found beneath a vehicle, a biologist authorized to handle desert tortoise will be contacted to move the animal out of harm’s way, or the vehicle will not be moved until the desert tortoise leaves of its own accord.</p> <p>For desert tortoises in the Solar Farm site and Red Bluff Substation, they will be relocated using the following phased translocation process (additional details are provided in Section 4.4) :</p> <ul style="list-style-type: none"> <li>• Installation of Perimeter Fencing</li> <li>• Clearance Surveys and Translocation</li> <li>• Long-term Monitoring</li> <li>• Reporting</li> </ul> <p>During the construction and operations and maintenance phases of the Project, additional BMPs will also be implemented by the Applicant, as described in Section 4.4.</p> <p><i>AM-WIL-2.</i> A Draft <i>Raven Management Plan</i> has been prepared and will be implemented by the Applicant to minimize the potential for the project to attract ravens to the Project site. The draft plan is in Appendix H and will be reviewed and approved by BLM. Additional details are provided in Section 4.4.</p>	

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<b>Wildlife (continued)</b>	<p><i>AM-WIL-2.</i> A Draft <i>Raven Management Plan</i> has been prepared and will be implemented by the Applicant to minimize the potential for the project to attract ravens to the Project site. The draft plan is in Appendix H and will be reviewed and approved by BLM. Additional details are provided in Section 4.4.</p> <p><i>AM-WIL-3.</i> A Draft <i>Avian and Bat Protection Plan</i> has been prepared and will be implemented by the Applicant to specify necessary actions to be taken to protect nesting bird and bat species, including burrowing owls, nesting birds, and roosting bats. The draft plan is in Appendix H and will be reviewed and approved by BLM. Additional details are provided in Section 4.4.</p>	<p>Implementation of Mitigation Measure BIO-1 discussed in Section 4.3, Vegetation, would reduce impacts on wildlife as well.</p>
<b>Climate Change</b>	<p>Three of the five applicant measures adopted by Sunlight for Air Resources would help reduce greenhouse gas emissions in addition to reducing criteria pollutant emissions (AM-AIR-3, AM-AIR-4, and AM-AIR-5).</p>	<p>Two of the three mitigation measures for Air Resources would also be expected to provide some reductions in construction-related greenhouse gas emissions (MM-AIR-1 AND MM-AIR-2).</p>
<b>Cultural Resources</b>	<p><i>AM-CUL-1:</i> A cultural resources monitoring and mitigation plan has been included as a project design feature to minimize impacts. The plan will include a description of areas to be monitored during construction, a discovery plan that will address unanticipated cultural resources, and provisions for the education of construction workers. Responsible parties for mitigation measures will be identified.</p>	<p>Adverse effects that the proposed or alternative actions may have on cultural resources will be resolved through compliance with the terms of a PA under Section 106 of the NHPA. In accordance with 36 CFR § 800.14(b), PAs are used for the resolution of adverse effects when effects on historic properties cannot be fully determined prior to approval of an undertaking. The BLM shall prepare a PA in consultation with the SHPO, Indian tribes, and other interested parties. The PA will govern the conclusion of the identification and evaluation of historic properties (eligible for the NRHP), as well as the resolution of any adverse effects</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<p><b>Cultural Resources (continued)</b></p>		<p>under Section 106 that may result from the proposed or alternative actions. When the PA is executed and fully implemented, the Project will have fulfilled the requirements of Section 106. The PA shall be executed prior to BLM’s approval of the ROD.</p> <p><i>MM-CUL-1.</i> The in-progress PA shall detail the process for activities to proceed in areas where historic properties are now known not to exist; the process for phased completion of field investigations for the evaluation of cultural resources and assessment of effects; a historic property treatment plan (HPTP); procedures to resolve adverse effects under Section 106; coordination between the CEQA process and Section 106 compliance; procedures for inadvertent discoveries; the process for treating human remains (NAGPRA Plan); compliance monitoring; dispute resolution; and tribal participation. Resolution of effects to cultural resources eligible for or listed on the NRHP may include research and documentation, data recovery excavations, curation, public interpretation, use or creation of historic contexts (especially for historic landscapes and the potential DTC-CAMA historic district), and/or report distribution.</p> <p><i>MM-CUL-2.</i> On the basis of preliminary CRHR eligibility assessments, NRHP eligibility assessments made under the PA, or existing NRHP eligibility determinations, the BLM and CPUC</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<p><b>Cultural Resources (continued)</b></p>		<p>may require the relocation of project components to avoid or reduce damage to cultural resource values. Where operationally feasible, potentially NRHP-eligible resources shall be protected from direct project impacts by project redesign within previously surveyed and analyzed areas.</p> <p><i>MM-CUL-3.</i> Where the BLM and CPUC decide that CRHR or NRHP-eligible or -listed cultural resources cannot be protected from direct impacts by project redesign, the Applicant shall comply with appropriate mitigative treatment(s) that will be detailed in the PA and cultural resources mitigation and monitoring plan.</p> <p><i>MM-CUL-4.</i> All CRHR-listed or eligible cultural resources (as determined by the CPUC) and all NRHP-listed or eligible cultural resources (as determined by the BLM) that will not be affected by direct impacts, but are within 50 feet of project locations will be monitored by a qualified archaeologist. Protective fencing, or other markers, at the BLM’s discretion, shall be erected and maintained to protect these resources from inadvertent trespass for the duration of construction in the vicinity.</p> <p><i>MM-CUL-5.</i> The historic property treatment plan that will be included in the PA will, at a minimum, employ avoidance, mitigation and data recovery as mitigation alternatives. As part of the historic property treatment plan, the</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<p><b>Cultural Resources (continued)</b></p>		<p>Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP-eligible sites that cannot be avoided. Additional content of the treatment plan will be dictated by the consultations associated with the PA.</p> <p><i>MM-CUL-6.</i> Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM.</p> <p><i>MM-CUL-7.</i> Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project area, and under direct supervision of a principal archaeologist. All cultural resources personnel will be approved by the BLM through the agency’s Cultural Resource Use Permitting process. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<b>Cultural Resources (continued)</b>		<p><i>MM-CUL-8.</i> In the event of inadvertent discoveries during construction, operation and maintenance, or decommissioning, procedures outlined in the PA and the monitoring and mitigation plan will be adhered to. At a minimum, this will include stop work orders in the vicinity of the find, recordation and evaluation of the find by a qualified archaeologist, notification of the find to BLM, and appropriate treatment measures, possibly including data recovery or avoidance.</p> <p><i>MM-CUL-9.</i> The BLM will continue to consult with Indian tribes to identify sacred sites, TCPs and traditional use areas that might be affected by the Project. If such places are identified, the BLM will consult further with tribes to resolve access impediments or other identified impacts. This may include re-design of the Project.</p>
<b>Paleontological Resources</b>	<p><i>AM-PR-1.</i> The Applicant shall be responsible for the following mitigation (more details are provided in Section 4.7):</p> <ul style="list-style-type: none"> <li>• A qualified paleontologist will conduct a study to characterize the paleontological sensitivity of the Project Study Area.</li> </ul> <p>Should the site characterization and or the site reconnaissance identify areas of high potential for paleontological resources, an additional mitigations could be implemented, as determined by the BLM.</p> <ul style="list-style-type: none"> <li>• A qualified paleontologist will develop a monitoring and mitigation plan prior to construction to mitigate adverse impacts on paleontological resources if excavation is to occur in an area of high paleontological sensitivity. The plan will include measures to be followed in the event that fossil materials are encountered during construction.</li> </ul>	

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
<b>Geology and Soil Resources</b>		
	<p><i>AM-GEO-1.</i> The Applicant shall include, as part of the construction design plans for the Solar Farm and Gen-Tie Line, the mitigation measures provided in the Earth Systems Southwest (2010) geotechnical survey. These mitigations are summarized in Section 4.8 and in Appendix F, and are subject to BLM approval. The Applicant shall be responsible for implementing these mitigations.</p> <p><i>AM-GEO-2.</i> The Applicant shall implement the following mitigation measures to reduce impacts from wind and water erosion to soils (additional details are in Section 4.8):</p> <ul style="list-style-type: none"> <li>• Obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit Water Quality Order 2009-0009 DWQ);</li> <li>• Use nonhazardous dust suppressants approved by the BLM and water on an as-needed basis to suppress wind-blown dust generated at the site during construction. Dust palliatives also would be applied between rows of solar panels for dust suppression during operation;</li> <li>• Implement erosion control measures during construction; and</li> <li>• Use silt fences for erosion control in the event of a storm event along neighboring properties, Power Line Road and along the main drainage to the east of the Solar Farm Site.</li> </ul> <p><i>AM-GEO-3.</i> SCE shall undertake the following mitigation measures as part of the Substation Project:</p> <ul style="list-style-type: none"> <li>• Prior to final design of the Substation, a combined geotechnical engineering and engineering geology study shall be conducted by SCE to identify site-specific geologic conditions and potential geologic hazards in sufficient detail to support sound engineering. Appropriate mitigations for identified geological hazards will be identified in the geotechnical study.</li> </ul>	

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
<b>Geology and Soil Resources (continued)</b>	<ul style="list-style-type: none"> <li>• For new substation construction, specific requirements for seismic design will be followed based on the Institute of Electrical and Electronic Engineers’ 693 “Recommended Practices for Seismic Design of Substations”.</li> <li>• New access roads, where required, will be designed to minimize ground disturbance during grading.</li> <li>• Cut and fill slopes will be minimized by a combination of benching and following natural topography where feasible.</li> <li>• Any disturbed areas associated with temporary construction will be returned to preconstruction conditions (to the extent feasible) after the completion of Project construction.</li> </ul> <p><i>AM-GEO-4.</i> SCE shall implement the following mitigation measures to reduce impacts from wind and water erosion to soils (additional details are in Section 4.8):</p> <ul style="list-style-type: none"> <li>• Obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit) 2009-0009 DWQ.</li> <li>• Use nonhazardous dust suppressants approved by the BLM to suppress wind-blown dust generated at the site during construction.</li> <li>• Implement erosion control measures during construction.</li> </ul>	
<b>Lands and Realty</b>	<p><i>AM-LAND-1.</i> Property owners within 300 feet of the Project shall be notified of all major Project construction milestones, such as start of Project construction. Said property owners shall be provided with a detailed construction schedule at least 30 days before construction so that they are informed as to the time and location of disturbance. Updates shall be provided as necessary.</p> <p><i>AM-LAND-2.</i> The Project shall be designed to minimize disturbance or modification of existing uses such as transmission lines, pipelines, and underground cables. If disturbance or modification of existing uses were necessary, Sunlight shall coordinate with the owners to determine an acceptable solution. Sunlight shall fund any necessary avoidance measures or modifications.</p>	

**Table ES-3 (continued)**  
**Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
<b>Noise and Vibration</b>		
	<p><i>AM-NZ-1:</i> Sunlight and SCE shall limit most construction activity to daytime hours consistent with Riverside County noise ordinance limitations. Certain electrical connection activities at the Solar Farm site would occur at night for safety reasons, but would not require any heavy equipment operations.</p> <p><i>AM-NZ-2:</i> SCE shall construct a masonry security wall around the perimeter of the Red Bluff Substation. This wall would also provide localized noise shielding for adjacent areas.</p>	
<b>Public Health and Safety/Hazardous Materials</b>		
	<p><b>Sunlight shall be responsible for these mitigations:</b></p> <p><i>AM-HAZ-1a:</i> Appropriate spill containment and clean-up kits shall be kept on site during construction and maintained during the operation of the Solar Farm and Gen-Tie Line.</p> <p><i>AM-HAZ-1b:</i> In accordance with the Emergency Planning &amp; Community Right to Know Act, the Applicant shall supply the local emergency response agencies with a Hazardous Materials Management Plan and an associated emergency response plan and inventory specific to the site. The Applicant shall prepare the plan for approval by the BLM and the County of Riverside. The Applicant shall be responsible for implementing the approved plan (additional details are in Section 4.11).</p> <p><i>AM-HAZ-1c:</i> During construction of the Solar Farm and Gen-Tie Line, BMPs for handling, storing, and disposing of hazardous materials and waste shall be followed (additional details are in Section 4.11).</p> <p><i>AM-HAZ-1d:</i> An SPCC Plan shall be developed and implemented that would identify primary and secondary containment for oil products stored on site as well as training in spill management in the event of an unexpected release. The Applicant shall prepare the plan for approval by the BLM and the County of Riverside. The Applicant shall be responsible for implementing the approved plan (additional details are in Section 4.11).</p>	

**Table ES-3 (continued)**  
**Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
<b>Public Health and Safety/Hazardous Materials (continued)</b>	<p><i>AM-HAZ-1e:</i> The Applicant shall develop an Environmental Health and Safety Plan for the construction and operation of the project to ensure it includes all activities and compliance to all local, state and federal regulatory requirements. Illness and Injury Prevention Programs will be developed for construction and operation. The Applicant shall prepare the plan for approval by the BLM. The Applicant shall be responsible for implementing the approved plan (additional details are in Section 4.11).</p> <p><i>AM-HAZ-2:</i> Based on the preliminary information provided in the Phase I ESA and the Class I cultural inventory of the Project Site, the Applicant proposes to take the following steps to better determine the nature and extent of potential MEC issues and then take appropriate corrective action measures. The first step is to better determine the history of military activities at the specific proposed Project locations that may have been affected by those activities. This would include further research regarding prior MEC removals that may have been issued in the past for certain areas by military or other investigating entities, and may include consultations with DOD personnel and archival research. With that more comprehensive understanding, the Applicant will propose, as necessary, further appropriate above and below-ground assessments, under the direction of an expert consultant team, to delineate areas for further investigation and then removal. The Applicant, under direction from the BLM, will determine which site-specific in-field investigative techniques and methodologies will be utilized to investigate and resolve potential MEC issues prior to project construction. Finally, all construction workers will receive appropriate MEC health and safety awareness training to ensure that they know what actions to take if unanticipated MEC or other suspicious articles are encountered during construction.</p> <p><i>AM-HAZ-3:</i> The Applicant shall provide the County of Riverside with a project-specific Emergency Response and Inventory Plan prior to initiating construction. The Applicant shall prepare the plan for approval by the</p>	

**Table ES-3 (continued)**  
**Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
Public Health and Safety/Hazardous Materials (continued)		
	<p>BLM and the County of Riverside. The Applicant shall be responsible for implementing the approved plan (additional details are in Section 4.11).</p> <p><i>AM-HAZ-4:</i> Project facilities shall be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health and safety requirements. In compliance with County of Riverside requirements, a project-specific fire prevention plan for both construction and operation of the Solar Farm will be completed prior to initiation of construction.</p> <p>Sunlight shall have a Project-specific fire prevention plan in place during construction, operation and decommissioning of the Project. This plan shall comply with applicable County of Riverside regulations and would be coordinated with the local Fire Department in the Chuckwalla Valley at Tamarisk Park.</p> <p><i>AM-HAZ-5:</i> An emergency response plan and site security plan shall be completed for the project facilities. Due to the sensitive nature of information contained in these plans, these documents will not be available for general public review. These plans shall be developed in accordance with BLM and DOE.</p> <p><b>SCE shall be responsible for these mitigations:</b></p> <p><i>AM-HAZ-2:</i> Same as above for Sunlight.</p> <p><i>AM-HAZ-6a:</i> SCE shall implement standard fire prevention and response practices for the construction activities where hazardous materials are in use. SCE shall be responsible for implementing the approved plan (additional details are in Section 4.11).</p> <p><i>AM-HAZ-6b:</i> As applicable, SCE shall follow fire codes per California Department of Forestry and Fire Protection (2008) requirements for vegetation clearance during construction of the project to reduce the fire hazard potential.</p>	

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
<b>Public Health and Safety/Hazardous Materials (continued)</b>		
	<p><i>AM-HAZ-6c:</i> Hazardous materials and waste handling shall be managed in accordance with the following plans and programs that SCE shall be responsible for implementing:</p> <ul style="list-style-type: none"> <li>• <i>Spill Prevention, Countermeasure, and Control Plan (SPCC Plan)</i></li> <li>• <i>Hazardous Materials Business Plans (HMBPs)</i></li> <li>• <i>Storm Water Pollution Prevention Plan (SWPPP)</i></li> <li>• <i>Health and Safety Program</i></li> <li>• <i>Hazardous Materials and Hazardous Waste Handling</i></li> <li>• <i>Emergency Release Response Procedures</i></li> </ul> <p><i>AM-HAZ-6d:</i> Hazardous materials shall be used or stored and disposed of in accordance with Federal, State, and local regulations.</p> <p><i>AM-HAZ-6e:</i> The Substation shall be grounded to limit electric shock and surges that could ignite fires.</p> <p><i>AM-HAZ-6f:</i> All construction and demolition waste shall be removed and transported to an appropriately permitted disposal facility.</p> <p><i>AM-HAZ-6d:</i> Hazardous materials shall be used or stored and disposed of in accordance with Federal, State, and local regulations.</p> <p><i>AM-HAZ-6e:</i> The Substation shall be grounded to limit electric shock and surges that could ignite fires.</p> <p><i>AM-HAZ-6f:</i> All construction and demolition waste shall be removed and transported to an appropriately permitted disposal facility.</p> <p><i>AM-HAZ-8:</i> SCE shall provide the County of Riverside with a project-specific Emergency Response and Inventory Plan prior to initiating construction. SCE shall be responsible for implementing the approved plan (additional details are in Section 4.11).</p> <p><i>AM-HAZ-9:</i> Project facilities shall be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health and safety requirements. In compliance with County of Riverside requirements, a project-specific fire prevention plan for both construction and operation of the substation shall be completed by SCE prior to initiation of construction.</p>	

**Table ES-3 (continued)**  
**Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	
<b>Public Health and Safety/Hazardous Materials (continued)</b>		
	AM-HAZ-10: Project facilities shall be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health and safety requirements. In compliance with County of Riverside requirements, a project-specific fire prevention plan for both construction and operation of the substation shall be completed by SCE prior to initiation of construction.	
<b>Recreation</b>		
	No mitigation proposed.	
<b>Socioeconomic and Environmental Justice</b>		
	<p><i>AM-SOCIO-1:</i> The public shall be notified of Project activities and scheduling to inform the public of projected impacts on the surrounding area. This notification shall provide the public with the opportunity to plan their personal and business activities appropriately.</p> <p><i>AM-SOCIO-2:</i> Sunlight shall align Gen-Tie lines along existing linear features (such as Kaiser Road) to minimize the social effects of potential visual impacts.</p>	
<b>Special Designations</b>		
	<p><i>AM-SD-1:</i> During operation and maintenance of Red Bluff Substation, lights shall normally be off. Where needed during emergency and scheduled work during the night, lights shall be shielded, would be directed downward, and shall be motion sensitive to minimize glare in surrounding areas.</p> <p>Mitigation measures described for Cultural Resources, would be implemented to reduce impacts on cultural resources within the Alligator Rock ACEC.</p>	

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<b>Transportation and Public Access</b>	<p><i>AM-TRANS-1:</i> Sunlight shall prepare a Construction Traffic Control Plan in conjunction with Riverside County and/or Caltrans in accordance with Caltrans Manual on Uniform Traffic Control Devices and the California Joint Utility Traffic Control Manual (2010). Details are provided in Section 4.15.</p> <p><i>AM-TRANS-2:</i> Sunlight shall document road conditions at the beginning and end of Project construction and decommissioning and contribute fair share cost for pavement maintenance and other needed repairs.</p> <p><i>AM-TRANS-3:</i> Sunlight shall share Project information with the airport owners if a transmission line alternative that runs near the former Desert Center Airport’s runway is selected to assure that no special precautions are needed.</p> <p><i>AM-TRANS-4:</i> BLM shall coordinate with the DOD R-2508 Complex Sustainability Office, Region IX, based in San Diego, California, and with local regional military installations regarding low-level flight operations relative to the Project to assure that no special precautions are needed.</p>	
<b>Visual Resources</b>		<p><i>MM-VR-1: Revegetation.</i> The Applicant and SCE shall minimize the amount of ground surface to be disturbed and revegetate disturbed soil areas (additional details provided in Section 4.16). No less than 30 days following the publication of the BLM’s Record of Decision/ROW Issuance, whichever comes first, the Applicant and SCE shall submit to the BLM a final agency-approved revegetation plan that has been reviewed and approved by the BLM.</p> <p>Within 30 days after completion of project construction, the Applicant and SCE each shall provide to the BLM for review and approval a written report identifying which items of the</p>

**Table ES-3 (continued)**  
**Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<p><b>Visual Resources</b>  <b>(continued)</b></p>		<p>revegetation plan have been completed, a summary of all modifications to mitigation measures made during the project’s construction phase, and which items are still outstanding. It shall also include a plan for revegetation monitoring.</p> <p><i>MM-VR-2: Litter and Trash Control.</i> During construction, all trash and food-related waste shall be placed in self-closing containers and removed daily from the site. Vehicular traffic shall be confined to existing routes of travel to and from the Project site, and cross-country vehicle and equipment use outside designated work areas shall be prohibited.</p> <p><i>MM-VR-3: Fugitive Dust Control.</i> The speed limit when traveling on dirt access routes shall not exceed 25 miles per hour as part of the Fugitive Dust Control Plan. BLM-approved dust suppressant shall be used to control fugitive dust.</p> <p><i>MM-VR-4: Lighting Control.</i> Consistent with safety and security considerations, the Applicant and SCE shall design and install all permanent exterior lighting and all temporary construction lighting such that a) lamps and reflectors are not visible from beyond the Solar Farm site, including any off-site security buffer areas; b) lighting shall not cause excessive reflected glare; c) direct lighting shall not illuminate the nighttime sky, except for required FAA aircraft safety lighting (which</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
Visual Resources (continued)		<p>shall be an on-demand, audio-visual warning system that is triggered by radar technology); d) illumination of the project and its immediate vicinity shall be minimized; and e) the plan shall comply with local policies and ordinances. The Applicant and SCE each shall submit to the BLM for review and approval a lighting mitigation plan (details provided in Section 4.16).</p> <p><i>MM-VR-5: Surface Treatment of Project Structures/Buildings.</i> The Applicant and SCE shall treat the surfaces of all project structures and buildings visible to the public such that a) their colors minimize visual contrast by blending with the characteristic landscape colors; b) their colors and finishes do not create excessive glare; and c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors shall be non-specular and nonreflective, and the insulators shall be nonreflective and nonrefractive. The Applicant and SCE shall comply with BLM requirements regarding appropriate surface treatments for Project elements.</p> <p><i>MM-VR-6: Project Design.</i> The Applicant and SCE shall use proper design fundamentals to reduce the visual contrast to the characteristic landscape. These include proper siting and location; reduction of visibility; repetition of form, line, color (see Mitigation MM-VR-5) and texture of the landscape; and reduction of unnecessary disturbance. Additional details on design strategies are provided in Section 4.16.</p>

**Table ES-3 (continued)  
Applicant Measures (AMs) and Mitigation Measures (MMs)**

Resource	Applicant Measures	Mitigation Measures
<b>Water Resources</b>		
	AM-WAT-1: Applicant shall prepare a SWPPP (details provided in Section 4.17) AM-WAT-1: Applicant shall prepare a worker plan (details provided in Section 4.17) AM-WAT-3: Applicant shall prepare an SPCC (details provided in Section 4.17)	

Note 1: Additional detail on some mitigation measures is provided in Chapter 4.

- Note:
- ACEC = Area of Critical Environmental Concern
  - BMPs = best management practices
  - CRHR = California Register of Historic Resources
  - DOD = Department of Defense
  - DOE = Department of Energy
  - DWQ = Division of Water Quality
  - EM = Environmental Manager
  - ESA = Environmental Site Assessment
  - FAA = Federal Aviation Administration
  - HMBP = Hazardous Materials Business Plan
  - HPTP = historic property treatment plan
  - MEC = Munitions of Environmental Concern
  - NECO Plan = Northern and Eastern Colorado Desert Plan
  - NPDES = National Pollutant Discharge Elimination System
  - NRHP = National Register of Historic Places
  - ROD = Record of Decision
  - ROW = right-of-way
  - SB = Senate Bill
  - SCAQMD = South Coast Air Quality Management District
  - SPCC = Spill Prevention, Control, and Countermeasures Plan
  - SWPPP = Stormwater Pollution Prevention Plan
  - WEAP = Worker Environmental Awareness Program

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