CHAPTER 1—INTRODUCTION

Desert Sunlight Holdings, LLC (Sunlight or Applicant), a wholly owned subsidiary of First Solar Development, Inc. (First Solar), proposes to construct and operate a 550-megawatt (MW), nominal capacity, alternating current (AC), solar photovoltaic (PV), energy-generating project known as the Desert Sunlight Solar Farm (DSSF). The Project consists of the PV generating facility (Solar Farm), most of the corridor for the associated 220-kilovolt (kV) generation interconnection transmission line (Gen-Tie Line), and one of two potential sites being considered for a new substation. The Project would be located on lands administered by the US Department of the Interior (DOI), Bureau of Land Management (BLM), Palm Springs-South Coast Field Office. The Project would develop 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. In addition to approvals sought by Sunlight from federal, state, and local agencies for implementing the DSSF, SCE will seek approvals from the California Public Utilities Commission (CPUC) and other state agencies to develop the Red Bluff Substation. Under California Environmental Quality Act (CEQA) Guidelines, Section 15221, this EIS will satisfy the CEQA requirements for those Project components that require entitlements from state and local agencies.

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). As part of the ROW grant application process, the Applicant submitted a Plan of Development (POD) for the Project to the BLM on December 22, 2009. Since then, the Applicant has modified the configuration of the Project's solar arrays and developed two additional Gen-Tie Line alternatives for consideration to improve design and incorporate feedback from public agencies and other stakeholders to minimize adverse environmental impacts. A Revised Project Description (a Supplement to the POD) was submitted to the BLM on March 19, 2010.

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 U.S. Department of Energy (DOE) is a cooperating agency on the EIS pursuant to a Memorandum of Understanding (MOU) between DOE and BLM. DOE will consider Sunlight's application for a loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPAct 05), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, Public Law (PL) 111-5 (the "Recovery Act").

In order to construct the Red Bluff Substation, SCE first must obtain authorization from the CPUC., which has discretionary authority to issue a Permit to Construct (PTC) for the Red Bluff

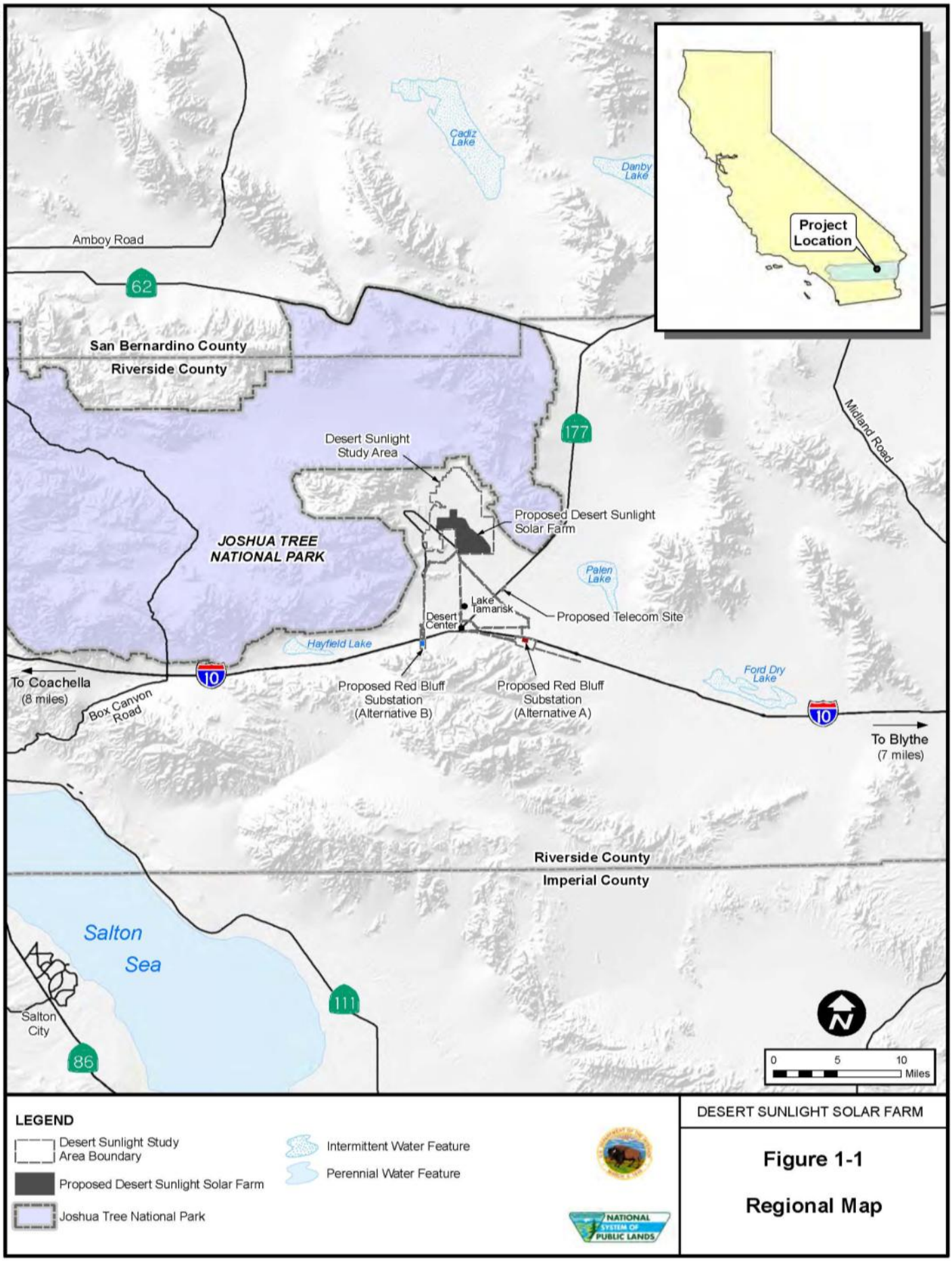
Substation, evaluated herein as a portion of the Project. As allowed by CEQA Guidelines Section 15221, the CPUC intends to use this EIS to provide the environmental review required for its consideration of SCE's PTC application under CEQA once that application is filed. The CPUC and BLM have signed an MOU that defines the relationship of the two agencies, and identifies CPUC as a cooperating agency with the BLM for preparation of this EIS. Following preparation of the EIS by BLM, the CPUC will determine whether the EIS adequately accommodates the requirements of CEQA and can be used to support its decision on the substation.

The Applicant is coordinating with other federal agencies, including the US Fish and Wildlife Service (USFWS) and the US Army Corps of Engineers (USACE), regarding potential Project approvals and any associated NEPA compliance requirements. The Applicant is also coordinating with California state and local agencies, including the California Department of Fish and Game (CDFG), California Department of Transportation (Caltrans), Metropolitan Water District of Southern California (MWD), California Regional Water Quality Control Board (RWQCB), South Coast Air Quality Management District (SCAQMD), and Riverside County, regarding potential Project approvals and any associated CEQA compliance requirements pursuant to the procedure outlined by the CPUC as the CEQA cooperating agency.

This EIS describes and evaluates the environmental impacts that are expected to result from construction, operation, maintenance, and decommissioning of the Project and presents recommended mitigation measures that, if adopted, would avoid, minimize, or mitigate the significant environmental impacts identified. In accordance with NEPA, as well as CEQA, requirements, this EIS also identifies alternatives that respond to the stated purpose and need for the proposed Project (including three No Action/No Project Alternatives) that could avoid or minimize significant environmental impacts associated with the Project as proposed by the Applicant and SCE, and evaluates the environmental impacts associated with these alternatives. Specifically, the information contained in this EIS will be considered by the BLM in its deliberations regarding approval of the ROW grant and may also be considered by the other, applicable agencies with regard to their respective permits, including DOE, CPUC, and other federal, state, and local agencies.

1.1 PROJECT LOCATION AND OVERVIEW

The Project area is a largely vacant, undeveloped, and relatively flat land area located in the Chuckwalla Valley of the Sonora Desert in eastern Riverside County. The area proposed for the Solar Farm (Figure 1-1) 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 existing transmission lines, telephone lines, and pipelines, as well as dirt roads. Joshua Tree National Park is north, east, and west of the area; at its closest point, the Solar Farm 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.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Project Location
Cadiz Lake
Danby Lake
Amboy Road
62
San Bernardino County
Riverside County
177
Midland Road
Desert Sunlight Study Area
Proposed Desert Sunlight Solar Farm
JOSHUA TREE NATIONAL PARK
Palen Lake
Lake Tamarisk
Desert Center
Proposed Telecom Site
Hayfield Lake
10
To Coachella
(8 miles)
Box Canyon Road
Proposed Red Bluff Substation (Alternative B)
Proposed Red Bluff Substation (Alternative A)
Ford Dry Lake
To Blythe
(7 miles)
Riverside County
Imperial County
Salton Sea
111
Salton City
86
N
0
5
10
Miles
LEGEND
Desert Sunlight Study Area Boundary
Proposed Desert Sunlight Solar Farm
Joshua Tree National Park
Intermittent Water Feature
Perennial Water Feature
NATIONAL SYSTEM OF PUBLIC LANDS
DESERT SUNLIGHT SOLAR FARM
Figure 1-1
Regional Map

The Project consists of three main components associated with generating and delivering electricity and one provision that would determine the suitability of the Project application area for solar development. :

- Solar Farm site (the main PV generating facility);
- 220-kV Gen-Tie (transmission) Line; and
- 500/220-kV Substation (the Red Bluff Substation).

The determination of the suitability of the project application area for solar development would be made as part of the plan amendment process, as described in Section 1.6.

The Solar Farm site, where the power would be generated, would encompass up to 4,245 acres. The Solar Farm would consist of several components:

- Main generation area, which includes PV arrays, combining switchgear, overhead lines, and access corridors;
- Operations and Maintenance (O&M) Facility;
- Solar Energy Visitor's Center;
- On-site substation (where the voltage of the Solar Farm-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 Solar Farm to the regional transmission system, through the Red Bluff Substation where the power from the Solar Farm would feed into the SCE's existing Devers Palo Verde 1 (DPV1) 500-kV transmission line. The Gen-Tie Line would be up to 12.2 miles long, encompassing up to 256 acres. The Applicant plans to use steel monopoles for the Gen-Tie Line. Poles are expected to be 135 feet high and approximately 900 to 1,100 feet apart.

The Red Bluff Substation would consist of a 500/220-kV substation on approximately 75 acres, with up to 20 acres needed for related drainage control, up to 20 acres for access roads, up to 5 acres for transmission line connections, up to 8 acres for an electric distribution line, and less than an acre for telecommunications facilities. It would interconnect the power from the Solar Farm (through the Gen-Tie Line) to SCE's DPV1 transmission line, which passes next to the two alternative substation sites evaluated in this EIS. Red Bluff Substation features include:

- Transmission lines to connect the Substation to the DPV1 line;
- Connection of the Project's Gen-Tie Line into the Substation;
- Modification of some existing Florida Power & Light (FPL) structures (towers) near the Substation;
- Construction of an electric distribution line for Substation light and power; and
- Installation of telecommunications facilities associated with the DSSF and Substation;
- Construction of drainage control features outside (but next to) the Substation footprint; and

- Construction of or improvements to existing access roads.

For each of the three Project components, the Applicant has provided the following alternative configurations:

- Two Solar Farm configurations, SF-B and SF-C;
- Three Gen-Tie Line configurations, Gen-Tie Line, GT- A-1, A-2, and B-2; and
- Two Red Bluff Substation configurations, Red Bluff Substation—Alternatives A and B.

One additional Solar Farm layout (SF-A) and one additional Gen-Tie Line configuration (GT-B-1) were eliminated from further consideration because of biological and cultural resources constraints.

In addition, two access road alternatives (Access Roads 1 and 2) have been identified for Red Bluff Substation Alternative A.

To provide a sufficiently large area to evaluate a reasonable range of alternatives for the Solar Farm site, the Gen-Tie Line route, and the Red Bluff Substation, including ancillary facilities, the Applicant established a Project Study Area of over 19,000 acres (Figure 1-2). The Project Study Area includes over 16,000 acres studied for siting of the Solar Farm site, over 2,000 acres studied for siting of the Gen-Tie Line, over 650 acres studied for siting of the Red Bluff Substation, approximately 140 acres considered for access roads to the Red Bluff Substation, 40 acres for telecommunications facilities, and approximately 230 acres for distribution line for Substation light and power.

The Applicant's process for evaluating and selecting from among various areas considered for siting the Project Study Area was undertaken in consultation with the BLM and was based on a number of criteria, including:

- A contiguous site with flat topography (grade of less than three percent) large enough for siting a 550-MW solar PV facility with minimal cut and fill;
- Avoidance of areas that are highly pristine or biologically sensitive, such as designated Wilderness Areas, Areas of Critical Environmental Concern, Desert Wildlife Management Areas, etc.;
- Avoidance of high-quality habitat for listed species (e.g., choosing Project locations in Category III [lowest quality] desert tortoise habitat);
- Avoidance of known cultural or historic sites and recreational resource areas;
- Proximity to existing transmission facilities with sufficient capacity for Project output and suitable locations for interconnection;
- Proximity to established highway and road access;
- Availability of land for sale or lease at a reasonable cost; and

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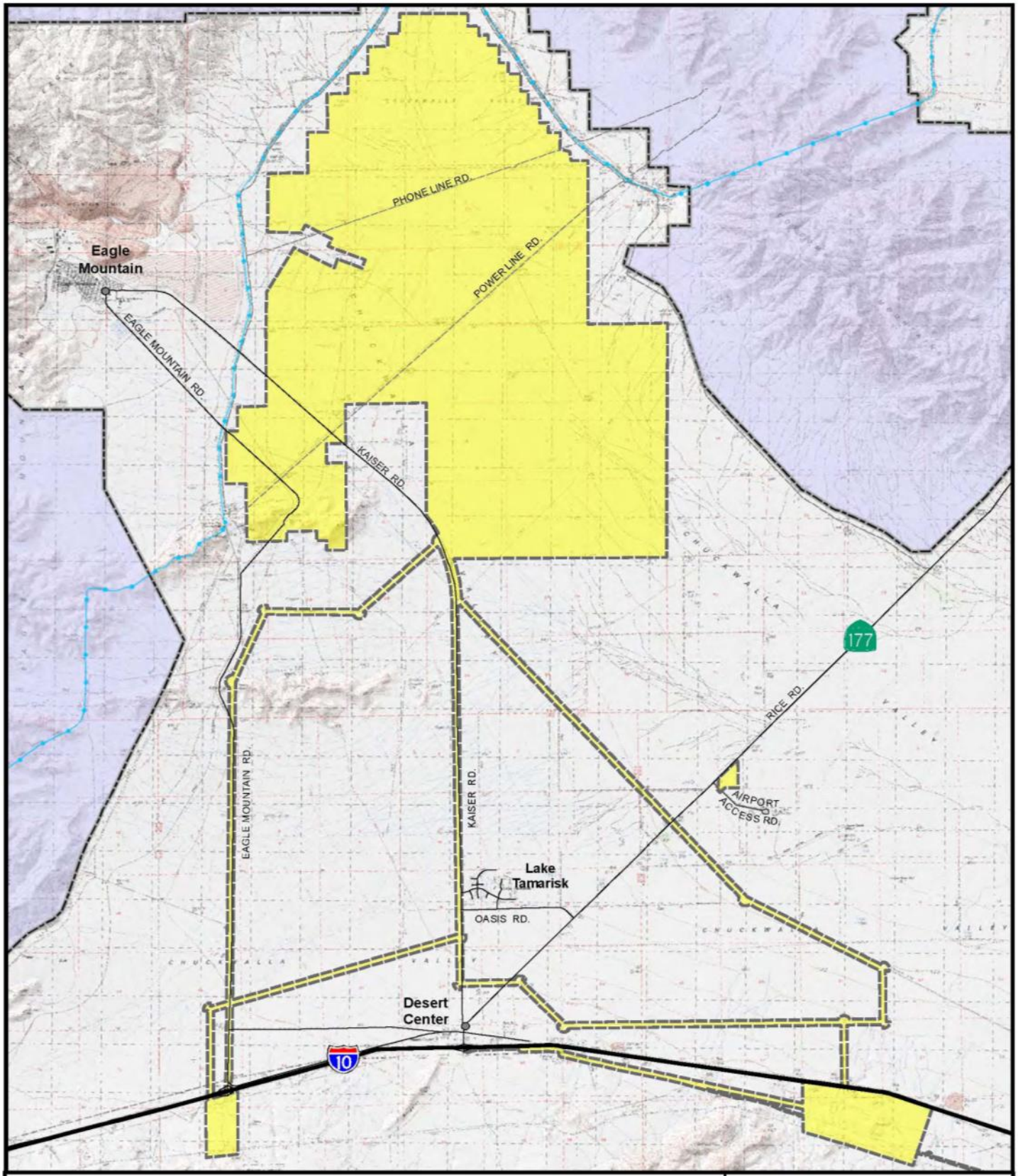


LEGEND

- Project Study Area
- Joshua Tree National Park

Source: First Solar, 2010.

0 1 2 Miles

NATIONAL SYSTEM OF PUBLIC LANDS

DESERT SUNLIGHT SOLAR FARM

Figure 1-2

Project Study Area

- Location within an area that has been identified as a Competitive Renewable Energy Zone (CREZ) under California's Renewable Energy Transmission Initiative (RETI), and a Solar Energy Study Area in the BLM/DOE Programmatic Solar Energy Development EIS.

Once the Project Study Area was chosen, the Applicant conducted preliminary biological, cultural, hydrological, and geological reviews of the entire Project Study Area in order to evaluate site conditions and eliminate areas of the Project Study Area considered unsuitable for development of the Project facilities. Based on the preliminary study, more thorough and detailed biological, cultural, hydrological, and geological studies were conducted on the portions of the Project Study Area considered suitable for development, including all areas considered for the three Project components. These detailed studies were done in order to determine the optimal configurations for alternatives to be considered for the Project components. The alternative configurations were sited to avoid and then minimize impacts to sensitive environmental resources to the extent possible. Further biological, cultural, hydrological, and geological reviews were conducted for areas added to the Project Study Area since the Applicant's December 2009 submittal of the POD.

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

1.2.1 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 right-of-way (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. The BLM's actions will also include concurrent consideration of amending the CDCA Plan of 1980, as amended. The CDCA, while recognizing the potential compatibility of solar generating 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 the BLM decides to approve the issuance of a ROW grant, it would also amend the CDCA, as required.

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

- 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.

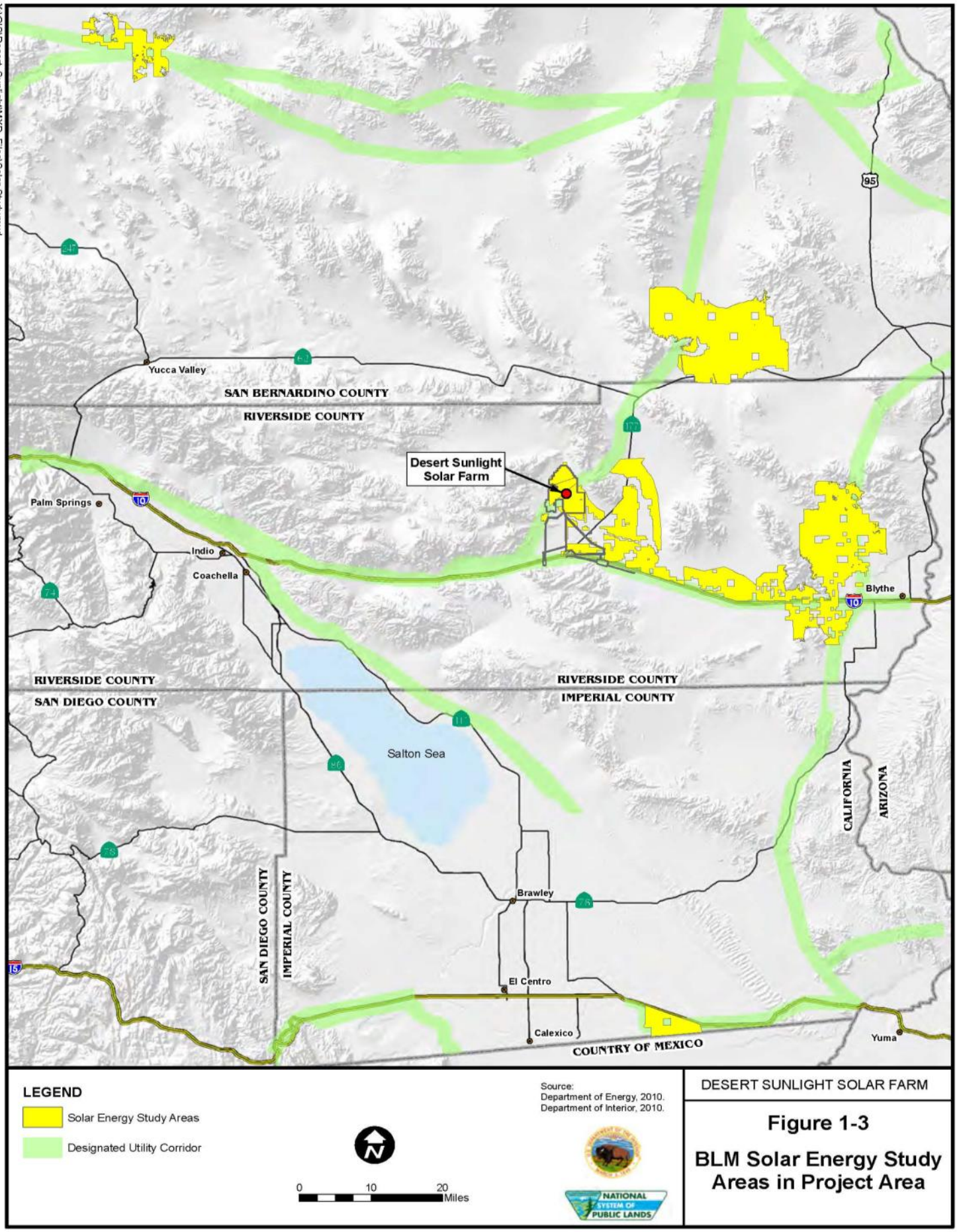
- The Energy Policy Act of 2005 (EPAct 05 or EPAct), which requires the DOI (BLM's parent agency) to approve at least 10,000 megawatts of non-hydropower renewable energy power on public lands by 2015.
- Secretarial Order 3285A1, "Renewable Energy Development by the DOI," dated February 22, 2010. This 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. The Project Study Area is within one of the study areas identified by the BLM under this order, as shown on the map in Figure 1-3.

1.2.2 DOE Purpose and Need

The DOE is a cooperating agency on this EIS, in accordance with an MOU with the BLM signed in January 2010. The 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. The DOE's proposed action is issuance of a loan guarantee for this Project under Title XVII of the EPAct 2005, as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the "Recovery Act"). The Recovery Act requires that construction for the Project commence by September 30, 2011.

The 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 emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the U.S. 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. The EPAct 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 commence 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.

On December 16, 2009, Sunlight submitted an application to the DOE Loan Guarantee Program for a federal loan guarantee for the Desert Sunlight Solar Farm at Desert Center,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Yucca Valley
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
Desert Sunlight Solar Farm
Palm Springs
Indio
Coachella
Blythe
RIVERSIDE COUNTY
SAN DIEGO COUNTY
RIVERSIDE COUNTY
IMPERIAL COUNTY
Salton Sea
CALIFORNIA
ARIZONA
SAN DIEGO COUNTY
IMPERIAL COUNTY
Brawley
El Centro
Calexico
Yuma
COUNTRY OF MEXICO
LEGEND
Solar Energy Study Areas
Designated Utility Corridor
0
10
20
Miles
Source:
Department of Energy, 2010.
Department of Interior, 2010.
NATIONAL SYSTEM OF PUBLIC LANDS
DESERT SUNLIGHT SOLAR FARM
Figure 1-3
BLM Solar Energy Study Areas in Project Area

California in response to DOE's October 7, 2009 solicitation, "Federal Loan Guarantees for Commercial Technology Renewable Energy Generation Projects under the Financial Institution Partnership Program." For this Solicitation, DOE is implementing the application process by directly working with certain qualified financial institutions through a set of procedures established by DOE as its "Financial Institution Partnership Program" ("FIPP"). In general, the FIPP is intended to expedite the loan guarantee process and expand senior credit capacity for the efficient and prudent financing of eligible projects under Section 1705 of Title XVII that use commercial technologies. This objective will be primarily accomplished by additional roles defined for certain financial institutions satisfying applicable qualifications set forth by DOE. Under the FIPP program, proposed borrowers and project sponsors may not apply directly to DOE but must instead work with a financial institution that meets DOE qualification as a Lead Lender.

1.2.3 Desert Sunlight Holdings LLC Objectives for the Project

Sunlight's fundamental objective for the DSSF Project is to construct, operate, maintain and eventually decommission a 550-MW PV energy facility and associated interconnection transmission infrastructure, and to facilitate SCE's construction and operation of a substation in order to provide renewable electric power to California's existing transmission grid 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. Sunlight's specific objectives for the DSSF Project are:

- To construct and operate a cost competitive 550-MW solar PV energy facility using First Solar's proven thin-film PV technology to provide a renewable and reliable source of power to California's investor-owned utilities;
- To locate the Project on contiguous lands with high solar insolation and relatively flat terrain at sufficient scale to maximize operational efficiency while minimizing environmental impacts and water use;
- To minimize environmental impacts and land disturbance by locating the Project near existing transmission infrastructure and roads and by avoiding sensitive environmental areas, recreational resources and wildlife habitats (e.g., Desert Wildlife Management Areas, Areas of Critical Environmental Concern);
- To assist California and its investor-owned utilities in meeting the State's Renewables Portfolio Standard (RPS) and GHG emissions reduction requirements, including the requirements set forth in Senate Bill (SB) 1078 (California Renewables Portfolio Standard Program), Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006), and the Governor's Executive Order S-14-08 to increase the state's Renewable Energy Standard to 33 percent renewable power by 2020. In particular:
    - California's RPS mandate that requires the state's investor-owned utilities (IOUs) to supply 20 percent of California's total electricity through renewable energy generation by 2010, as set forth in Senate Bill (SB) 1078 (2001-2002 Reg. Sess.) (establishing the California RPS Program) and SB 107 (2005-2006 Reg. Sess.) (accelerating the 20 percent requirement to 2010). As of the first quarter of 2010, California's IOUs were obtaining only 15 percent of their electricity from renewable

energy generation against the end-of-year 20 percent target. The CPUC reported that the IOUs were expected to meet the 2010 target only in 2012 or 2013, two to three years behind schedule, and that half of new RPS projects approved by the CPUC since 2002 and under development are delayed due to lack of transmission or generation permitting at the county, state, or federal level.[1]

- Governor Schwarzenegger's issued Executive Order S-14-08 to streamline California's renewable energy project approval process and increase the state's Renewable Energy Standard to 33 percent renewable energy by 2020. The IOUs will have to acquire, annually, an additional 75 terawatt-hours (TWh) of electricity from renewable generation by 2020 in order to meet this requirement, more than twice the amount currently obtained from renewable generation.[2]
- California's GHG emission reduction goals set forth in AB 32 that requires the State's GHG emissions be reduced to 1990 levels by 2020.

- To develop a source of renewable electric power that can be placed into service in an expeditious manner by interconnecting to SCE's existing transmission grid at DPV1 at a substation location reviewed by SCE and interconnecting to the California Independent System Operator (CAISO) grid through serial interconnection queue positions as part of the Large Generator Interconnection Process (LGIP).

To assist in meeting these objectives, and after evaluating numerous potential locations and alternative Project configurations in consultation with BLM, the Applicant applied for a ROW grant to construct and operate a 550-MW solar PV energy facility on BLM-administered land at the Desert Sunlight location using its proven thin film PV technology, entered into power purchase agreements (PPAs) to supply renewable power, and obtained priority access to transmit 550 MW of renewable power on SCE's existing DPV1 transmission line at the Red Bluff Substation. Sunlight also applied to DOE for a loan guarantee under Title XVII of EPAct05, as amended by Section 406 of the Recovery Act of 2009, to assist in financing the Project (refer to Section 1.2.2 for more information). Through this application the Applicant will assist the BLM and DOE in meeting their respective Purposes and Needs of contributing towards fulfillment of the economic stimulus and renewable energy development objectives of EPAct05, the Recovery Act, Presidential and Secretarial orders, and federal laws, regulations, and mandates.

1.2.4 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 LGIP process. CEQA Guidelines Section 15124(b) requires a statement of project objectives. The project objectives for the Red Bluff Substation are:

- 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.

[1]Renewables Portfolio Standard Quarterly Report Q4 2009, California Public Utilities Commission, pp 4, 7-8.
[2]33 percent Renewables Portfolio Standard Implementation Analysis Preliminary Results, June 2009, California Public Utilities Commission, p. 8.

- Provide safe and reliable electrical service consistent with the North American Electric Reliability Corporation (NERC), Federal Energy Regulatory Commission (FERC), CAISO, 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.

1.3 AUTHORIZING ACTIONS

1.3.1 Major Authorizing Laws and Regulations

The BLM is preparing this EIS, in compliance with NEPA, FLPMA and applicable regulations 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 plan amendment (PA) to the CDCA Plan (BLM 1980), as amended. DOE will also consider Sunlight's application for a loan guarantee under Title XVII of the EPAct 05, as amended by Section 406 of the Recovery Act.

In addition, the CPUC has discretionary authority to issue a PTC for the Red Bluff Substation, evaluated herein as a portion of the Project. As allowed by the CEQA Guidelines, the CPUC intends to use this EIS to provide the environmental review required for its approval process following SCE's submission of a PTC application for the substation.

The Applicant is also coordinating with other federal, state, and local agencies, regarding potential Project permits and approvals and any associated NEPA or CEQA compliance requirements. Other federal, as well as state and local permitting authorities may also intend to rely upon the analysis presented in this EIS for fulfillment of their respective regulatory obligations.

The following sections provide an overview of the major federal (BLM and non-BLM), state, and local policies, plans, programs, and laws that apply to the Project. Additional requirements are discussed for each environmental resource in Chapter 3.

1.3.2 Relationship to BLM Policies, Plans, Programs, and Laws

Federal Land Policy and Management Act of 1976

FLPMA provides the BLM's overarching mandate to manage the lands and resources under its stewardship based on the principles of multiple use and sustained yield. Multiple use is a concept that directs management of lands and resource values in a way that best meets the present and future needs of Americans and is defined as "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources" (FLPMA §103[c]). In processing a land use plan amendment, BLM must also comply with the BLM Planning Regulations (43 CFR Part 1600) and the BLM Land Use Planning Handbook (H-1601-1).

California Desert Conservation Area Plan

The CDCA encompasses 25 million acres in Southern California designated by Congress in 1976 through FLPMA. The BLM manages about 10 million of those acres. Congress directed the BLM to prepare and implement a comprehensive long-range plan for the management, use, development,

and protection of public lands within the CDCA. The 1980 CDCA Plan, as amended, is based on the concepts of multiple use, sustained yield, and maintenance of environmental quality. The CDCA Plan provides overall regional guidance for BLM-administered lands in the CDCA and establishes long-term goals for protection and use of the California desert.

The CDCA Plan establishes four multiple use classes, multiple use class guidelines, and plan elements for specific resources or activities, such as motorized vehicle access, recreation, and vegetation. The multiple use classes are:

- Class C (Controlled Use)—About four million acres are Class C. These include 69 wilderness areas (3,667,020 acres) created by Congress with the October 1994 passage of the California Desert Protection Act. These lands are to be preserved in a natural state; access generally is limited to nonmotorized, nonmechanized means—on foot or horseback.
- Class L (Limited Use)—About four million acres are Class L. These lands are managed to protect sensitive, natural, scenic, ecological, and cultural resource values. They provide for generally lower-intensity, carefully controlled multiple uses that do not significantly diminish resource values.
- Class M (Moderate Use)—About 1.5 million acres are Class M. These lands are managed in a controlled balance between higher-intensity use and protection. A wide variety of uses, such as mining, livestock grazing, recreation, energy, and utility development are allowed. Any damage that permitted uses cause must be mitigated.
- Class I (Intensive Use)—About 500,000 acres are Class I. These lands are managed for concentrated use to meet human needs. Reasonable protection is provided for sensitive natural values and mitigation of impacts, and impacted areas are rehabilitated when possible.

Northern and Eastern Colorado Desert Coordinated Management Plan

The NECO Plan is a Habitat Conservation Plan and amendment to the 1980 CDCA Plan that provides:

- A comprehensive framework for ecosystem management, including recovery of three populations of the desert tortoise;
- A single landscape basis for ecosystem management for three federal land administering agencies within the planning area (BLM, Joshua Tree National Park (eastern half only), and all of Chocolate Mountains Gunnery Range managed by the U.S. Navy; and
- A structure that integrates ecosystem management into a broader context of agencies' mandates, including BLM's multiple use management mission.

The NECO planning area consists of 5.5 million acres, covering portions of BLM field offices in Needles, El Centro, and Palm Springs. The plan amendment is also cooperatively joined by the California Department of Fish and Game through the statewide Sikes Act memorandum of agreement.

1.3.3 Relationship to Other Federal Plans, Policies, Programs, and Laws

This section summarizes the other major federal, that is, specifically not BLM, but generally applicable plans, policies, programs, and laws that apply to the Proposed Action.

National Environmental Policy Act

NEPA (42 USC. 4321 et seq.) declares a continuing federal policy that directs "a systematic, interdisciplinary approach" to planning and decision-making and requires the preparation of environmental statements for "major Federal actions significantly affecting the quality of the human environment." The President's Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508) require federal agencies to identify and assess reasonable alternatives to proposed actions that will restore and enhance the quality of the human environment and avoid or minimize adverse environmental impacts. (See also Department of Energy Regulations, 10 CFR Part 1021.) Federal agencies are further directed to emphasize significant environmental issues in Project planning and to integrate impact studies required by other environmental laws and Executive Orders into the NEPA process. The NEPA process should therefore be seen as an overall framework for the environmental evaluation of federal actions. In processing ROW applications, BLM must also comply with the Department of the Interior's regulations applicable to implementing the procedural requirements of NEPA (43 CFR Part 46), as well as BLM's NEPA Handbook (H-1790-1).

Clean Air Act

The Clean Air Act (CAA) (42 USC 7401-7661), as amended, regulates air pollution to improve air quality. It regulates air emissions from area, stationary, and mobile sources. This law also authorizes the U.S. Environmental Protection Agency to establish National Ambient Air Quality Standards to protect public health and the environment.

Clean Water Act

The Clean Water Act (CWA) (33 USC 1251-1376) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of the CWA. The RWQCBs administer the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredge or fill material) from a point source into waters of the U.S. Section 404 establishes a permit program administered by the USACE regulating the discharge of dredged or fill material into waters of the U.S., including wetlands. The CWA also contains the requirements under which the RWQCBs set water quality standards for all contaminants in surface waters.

Endangered Species Act of 1973

The Endangered Species Act (ESA) (16 USC 1531-1543) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. The USFWS administers the ESA. The major components of the ESA are:

- Provisions for the listing of threatened and endangered species;
- The requirement for consultation with the USFWS on federal projects that may affect listed species or their habitat;

- Prohibitions against "take" of listed species. Under the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct"; and
- Provisions for permits to allow the incidental taking of threatened and endangered species.

National Historic Preservation Act of 1966, as Amended

The National Historic Preservation Act (NHPA) (16 USC 470) requires federal agencies with jurisdiction over a proposed federal Project to take into account the effect of the undertaking on cultural resources listed or eligible for listing on the National Register of Historic Places (NRHP) and requires that the agencies afford the State Historic Preservation Office, any potentially affected Indian tribe, and the Advisory Council on Historic Preservation with an opportunity to comment on the undertaking.

1.3.4 Relationship to State and Local Laws, Plans, Policies, and Programs

This section summarizes the major state and local laws, plans, policies, and programs that apply to the Proposed Action.

Air Quality Management District

The proposed Project locations are within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), which reviews the plans and specifications for construction in the proposed Project area. SCAQMD would assess emissions and possible air contamination resulting from construction and operational activities (e.g., road dust, windblown contaminants, and emissions from construction activities).

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code 2050 et seq.) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that affect a species that is both state and federally listed, compliance with the Federal ESA will satisfy CESA if the Department of Fish and Game (CDFG) determines that the federal incidental take authorization is "consistent" with CESA under Fish and Game Code Section 2080.1 and issues a Consistency Determination to that effect. For projects that will result in a take of a state-only listed species, the Applicant must apply for a take permit under Section 2081(b).

California Fish and Game Code, Streambed Alteration Agreements

Sections 1601 to 1603 of the California Fish and Game Code require notifying CDFG prior to constructing any Project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental review process. When an existing fish or wildlife resource may be substantially adversely affected, CDFG is required to propose reasonable project changes and/or mitigation to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

State Historic Preservation Office

The California SHPO reviews state programs and projects that may impact historic resources that are located on state-owned land pursuant to California Public Resources Code § 5024 and 5024.5.

California's Renewables Portfolio Standard

California's RPS requires each of the state's IOUs to supply 20 percent of its total electricity through renewable energy generation by the year 2010, as set forth in Senate Bill (SB) 1078 (2001-2002 Reg. Sess.) (establishing the California RPS Program) and SB 107 (2005-2006 Reg. Sess.) (accelerating the 20 percent requirement to the year 2010). Additionally, Governor Schwarzenegger's Executive Order S-14-08 streamlined California's renewable energy project approval process and increased the state's Renewable Energy Standard to 33 percent renewable energy by 2020. The CEC will certify that electricity produced by the Project is eligible for the IOUs' RPS compliance after the Project achieves commercial operation.

California Renewable Energy Transmission Initiative

The California RETI is a statewide planning process that has been underway for over two years to identify the transmission projects needed to accommodate California's renewable energy goals. Stakeholders have actively participated in the planning process. Phases 1 and 2 of the RETI project resulted in the identification and refinement of Competitive Renewable Energy Zones (CREZs), areas determined to hold the greatest potential for cost-effective and environmentally responsible renewable energy development.[3] The Project Study Area is located in an area that has been included by the RETI within the Riverside East CREZ.

California Large Generator Interconnection Process

Electricity from the Project would be delivered to customers by the CAISO, acting as a transmission provider, through the transmission system owned by SCE and Pacific Gas and Electricity (PG&E). In order to obtain the right to connect to the CAISO grid, a proposed electric generating facility with more than a 20-megawatt capacity must first apply for a queue position with CAISO through the LGIP. Applications for the Project's queue positions were submitted in 2006, obtaining positions 146 and 147. Next, the proposed generator must obtain a Feasibility Study, a System Impact Study, and a Facility Study from CAISO, a process that often takes several years. The final Facility Study for the Project is expected in 2010. Finally, the proposed generator must obtain a Large Generator Interconnection Agreement (LGIA) from CAISO, which is expected for the Project in 2010—more than three years after obtaining its queue positions.

Riverside County General Plan

The Project is within the Riverside County's Desert Center Planning Area. The Riverside General Plan aims to preserve the natural character of the unincorporated areas of Riverside County and the Desert Center. The plan encourages clustering of development for the preservation of contiguous open space, aims to limit off-road vehicle use, and requires new development to comply with desert tortoise critical habitat designation requirements.

[3]Renewable Energy Transmission Initiative Phase 2B Draft Report, April, 2010, p. 1-1.

1.4 REQUIRED FEDERAL, STATE, AND LOCAL PERMITS, APPROVALS AND LICENSES

Federal, state, and local permits and approvals would be required before construction and operation of the Project could proceed. A list of the major permits, approvals, and consultations required is presented in the following sections. The Applicant would be responsible for obtaining all permits and approvals required to implement any authorized activities.

1.4.1 Federal Permits and Status

Table 1.4-1 provides a list of the federal permits, approvals, or authorizations anticipated to be required for the Project, and the status of relevant permit applications.

Table 1.4-1
Status of Project Federal Permits, Approvals, and Authorizations

Permit or Approval	Lead Agency	Agency Action or Status
FLPMA ROW Grant	BLM	The ROW Grant is subject to NEPA review and terms and conditions as set forth under FLPMA and BLM's implementing regulations. If the Project is approved, BLM will issue a ROW grant at the end of the NEPA process. The original FLPMA Standard Form 299 (SF 299) ROW application for the Project was submitted to the BLM in November 2006; updates were submitted in February 2007, June 2009, October 2009, March 2010, April 2010, and August 2010. The original POD was submitted in April 2007 with an update, based on revised BLM POD guidelines, submitted in October 2008. Because of Project technology changes, another revision was submitted in December 2009, with amendments submitted in March 2010.
CDCA Plan Amendment	BLM	BLM authorization of a ROW grant for the Project will require a CDCA Plan Amendment. The amendment will be addressed as part of the FLPMA and NEPA processes as provided for in BLM Planning Regulations (43 CFR Part 1600), and BLM Land Use Planning Handbook (H-1601-1).
Review of Sunlight's application for a Loan Guarantee under Title XVIII of EPAct 05	DOE	DOE is a cooperating agency in the preparation of this EIS. DOE will use the EIS as part of its review process for the loan guarantee.
Section 404 Clean Water Act (CWA) Permit	USACE	Sunlight is preparing a jurisdictional delineation report to assess whether the Project locations contain waters or wetlands subject to Federal Clean Water Act (CWA) jurisdiction. Sunlight will work with the USACE to obtain written concurrence regarding federal jurisdiction under the CWA.
Endangered/Threatened Species Consultation and Incidental Take Statement under the Federal ESA	USFWS	Sunlight and the BLM will engage the USFWS in the ESA Section 7 consultation process concurrently with the NEPA review process, and will obtain incidental take statement authority, as necessary. Biological surveys for federally listed species were conducted for the proposed Project locations, including the proposed transmission corridors, and substation locations.

Table 1.4-1
Status of Project Federal Permits, Approvals, and Authorizations

Permit or Approval	Lead Agency	Agency Action or Status
National Historic Preservation Act Section 106 Compliance	BLM	Identification and evaluation of cultural resources within the Project's Area of Potential Effects (APE) is ongoing. The BLM has initiated consultation with the State Historic Preservation Office and notified them of its intent to prepare a Programmatic Agreement (PA) for the Project. The PA will specify the procedures to follow for the phased conclusion of additional field investigations and evaluation of cultural resources within the APE. The PA will also specify the process for the assessment of effects to resources within the APE that are determined to be eligible for inclusion in the NRHP. The PA will stipulate the requirement for the Historic Property Treatment Plan/Mitigation Plan to be prepared that will outline measures to avoid, minimize, or mitigate adverse effects to NRHP-eligible resources. The PA will be signed prior to completion of the Record of Decision (ROD) for the Project and will ensure compliance with Section 106 of the NHPA.
Archaeological Resources Protection Act, Cultural Resource Use Permit	BLM, State Office	A BLM Cultural Resource Use Permit will be obtained for the purposes of testing to determine the NRHP significance of identified sites and to conduct data recovery on sites adversely affected by Project construction and operation.
Fieldwork Authorization	BLM, Palm Springs-South Coast Field Office	A BLM Fieldwork Authorization was obtained prior to conducting Class III cultural resource inventories for the Project.
Native American Consultation	BLM	Sunlight is coordinating with the BLM to support the BLM's consultation with Native American tribes for the purpose of identifying sacred sites and other places of traditional religious and cultural importance, and to incorporate appropriate mitigation measures in the event such sites are located during construction. Consultation with tribes has been initiated and will continue throughout the NEPA and Section 106 compliance processes.
Department of Defense (DOD) Review	DOD	The BLM will request further review of the Project by the DOD for its potential impact on military overflights and operations, if warranted.

1.4.2 State Permits and Status

Table 1.4-2 provides a list of the State permits, approvals, or authorizations anticipated to be required for the Project, as well as the status of relevant permit applications.

Table 1.4-2
Status of Project State Permits, Approvals, and Authorizations

Permit or Approval	Lead Agency	Agency Action or Status
Endangered/Threatened Species Take Authorization under CESA and Sections 2050 (general provision for endangered species) and 2080 (take of endangered species) of the California Fish and Game Code	CDFG	CESA review and approval will be required for impacts to state listed species. Focused biological surveys for sensitive species were done for all potential Project areas. CDFG is expected to complete a Consistency Determination for the Project, concurring with the USFWS's Biological Opinion for those species listed under both the ESA and CESA.
Section 1600-1602 Streambed Alteration Agreement process under the California Fish and Game Code	CDFG	Sunlight is coordinating with the CDFG on the scope of potential jurisdictional streambeds under the Fish and Game Code Sections 1600–1602. Sunlight will work with the CDFG to prepare and implement appropriate mitigation associated with any necessary Streambed Alteration Agreement.
Storm Water requirements under California Water Code and the CWA	RWQCB	Sunlight is coordinating with the Colorado River Basin RWQCB to determine the potential scope of storm water coverage for the construction and operation of the PV facility and related infrastructure. Sunlight will incorporate best management practices for storm water management and control.
Section 401 Certification under CWA	RWQCB	CWA Section 401 certification would be required in the event that the Project requires a federal permit or license that may result in a discharge to navigable waters. If certification is required, Sunlight will apply to the RWQCB to obtain certification.
Interconnection Agreement	CAISO	An Interconnection Request has been submitted to CAISO and the Project has been assigned a priority queue position within the "serial group" for immediate assessment of interconnection feasibility.
Permit to Construct (PTC)	CPUC	CPUC is a cooperating agency in the preparation of this EIS. The EIS will provide environmental review coverage pursuant to CPUC's CEQA requirements, as described in the CPUC-BLM MOU. SCE will need to obtain a PTC for Red Bluff Substation. SCE has not yet submitted the PTC application to the CPUC.
Encroachment Permit	Caltrans	An encroachment permit will be needed where the Transmission Corridor alternatives cross the I-10 and SR-177 corridors in order to reach the SCE Red Bluff Substation Site alternatives located south of I-10.
Fugitive Dust Control Plan	SCAQMD	A fugitive dust control plan will be developed in accordance with SCAQMD requirements prior to construction. Sunlight will obtain any additional permits or registrations required by the SCAQMD for the Project, as applicable.
Consultation on Sacred Areas to comply with state requirements.	Native American Heritage Commission (NAHC)	The NAHC has been contacted. Follow-up contacts with Native Americans are in progress. Fourteen local tribes have been contacted and invited to participate in the PA development process, and were invited to the PA Development Kick-Off meeting held April 23, 2010. The BLM met with individual tribes, on request, to present information and answer questions.

1.4.3 Local Permits and Status

Table 1.4-3 provides a list and status of the local permits, approvals, and authorizations anticipated to be required for the Project, as well as the status of these permit applications.

Table 1.4-3
Status of Project Local Permits, Approvals, and Authorizations

Permit or Approval	Lead Agency	Agency Action or Status
Public Use Permit	Riverside County	Sunlight is in discussions with Riverside County to determine whether any land use permit would be required for the Project alternatives that may incorporate private land. The County has indicated that no Public Use Permit would be required for the Project.
Construction Permits (e.g., Grading, Building, Electrical)	Riverside County	If permits are required, they will be secured before construction activities begin.
Encroachment or other Permits	Riverside County and MWD	Permission for crossings of Kaiser Road or MWD easements will be secured before construction begins, as necessary.

1.5 DOCUMENT ORGANIZATION AND ISSUES TO BE ADDRESSED

1.5.1 Document Organization

This document follows regulations promulgated by the Council on Environmental Quality (CEQ) for Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508); the Department of the Interior's NEPA regulations, 43 C.F.R. Part 46; the BLM NEPA Handbook, H-1790-1; Sections 201, 202, and 206 of FLPMA (43 CFR 1600); the BLM Land Use Planning Handbook, H1601-1, and DOE's NEPA implementing procedures (10 CFR 1021). This EIS describes the components of and reasonable alternatives to the Proposed Action and environmental consequences of the Proposed Action and the alternatives. In addition, the document incorporates provisions of CEQA to allow the CPUC to use this EIS in its environmental review and approval process for the Red Bluff Substation. This document also addresses DOE's Floodplain and Wetland Environmental Review Requirements (10 CFR 1022).

The EIS organization is:

Chapter 1 provides general background on the Project; identifies the purpose and need for action; roles of the BLM, other agencies, and authorities regulating various aspects of the Project; and a summary of the public involvement process for the Project.

Chapter 2 describes the Proposed Action and draft land use plan amendment decisions to be made and the alternatives development and screening process conducted for the Project. It also presents a range of reasonable Project alternatives that address the stated purpose and need for the Project and identifies and explains why alternatives were considered but not analyzed in detail.

Chapter 3 describes the affected environment (existing conditions) for 16 environmental components in the Proposed Action area and identifies potential projects contributing to cumulative impacts.

Chapter 4 provides a comprehensive analysis and assessment of impacts (direct, indirect, and cumulative) and mitigation measures (by environmental component) for the Proposed Action and other alternatives (including three No Action Alternatives). It also describes other aspects of BLM compliance with NEPA procedures, including a description of unavoidable adverse impacts, the

relationship between short-term use and long-term productivity, and any irreversible or irretrievable commitments of resources (40 CFR, 1502.16), as well as addressing CEQA requirements.

Chapter 5 identifies the persons, groups, agencies and other governmental bodies that were consulted or that contributed to the preparation of the EIS; describes Native American consultations and public participation during scoping; provides a list of EIS preparers; and lists agencies, organizations, and persons to whom the EIS will be sent or has been sent.

Chapter 6 provides the references used in preparing the EIS.

Chapter 7 includes a glossary and list of acronyms and abbreviations used in the EIS.

Chapter 8 provides an index for key words in the EIS.

Appendices contain information that supplements or supports the analyses in the body of the EIS.

1.5.2 Issues to be Addressed

The issues evaluated in this EIS include the physical, biological, cultural, socioeconomic, and other resources that have the potential to be affected by activities related to the Proposed Action and alternatives. The issues are:

- Air resources;
- Biological Resources – Vegetation;
- Biological Resources – Wildlife;
- Climate Change;
- Cultural Resources;
- Paleontological Resources;
- Geology and Soil Resources;
- Lands and Realty;
- Noise and Vibration;
- Public Health and Safety and Hazardous Materials;
- Recreation;
- Socioeconomics and Environmental Justice;
- Special Designation Areas;
- Traffic, Transportation, and Public Access;
- Visual Resources;
- Water Resources (Surface and Groundwater);

Resources that do not exist in the Project area and, therefore, do not warrant analysis in the EIS include:

- Grazing;

- Wild Horses and Burros; and
- Mineral Resources.

1.6 BLM LAND USE PLAN AMENDMENT PROCESS

The principal resource management plan covering the proposed Project is the BLM's California Desert Conservation Area (CDCA) Plan of 1980, as amended. The Project Study Area is within the planning area designated under a 2002 amendment to the CDCA Plan—the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO Plan). In the CDCA and NECO Plans, the location of the proposed Project includes land that is mostly classified as Multiple-Use Class M (Moderate Use) and some as Multiple-Use Class L (Limited Use). The CDCA Plan states that solar power facilities and transmission routes that do not conform to the BLM's adopted corridor system may be allowed within Moderate and Limited Use areas after NEPA requirements are met. This EIS acts as the mechanism for complying with those NEPA requirements. Because solar power facilities are an allowable use of the land as it is classified in the CDCA Plan, the proposed Project does not conflict with the Plan. However, Chapter 3 (Energy Production and Utility Corridors Element) of the CDCA Plan, as amended, also requires that newly proposed power generation sites that are not already identified in the Plan be considered through the Plan Amendment process. The application area is not identified within the Plan and, therefore, a Plan Amendment is required to include the area as a recognized element within the Plan and to determine the suitability of the application area for solar development.